

# SIEMENS

## SINUMERIK

### SINUMERIK 840D sl, SINAMICS S120 Machine data and parameters

Parameter Manual

Preface

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Machine and setting data

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A

Valid for

control  
SINUMERIK 840D sl / 840DE sl

Software  
CNC software  
SINAMICS S120

version  
4.5 SP2  
4.5




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 <b>WARNING</b>
indicates that death or severe personal injury <b>may</b> result if proper precautions are not taken.
 <b>CAUTION</b>
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# Preface

## SINUMERIK documentation

The SINUMERIK documentation is organized in the following categories:

- General documentation
- User documentation
- Manufacturer/service documentation

## Additional information

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- [www.siemens.com/sinustrain](http://www.siemens.com/sinustrain)  
SinuTrain - training software for SINUMERIK

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You can find Frequently Asked Questions in the Service&Support pages under Product Support. <http://support.automation.siemens.com>

## **SINUMERIK**

You can find information on SINUMERIK under the following link:  
[www.siemens.com/sinumerik](http://www.siemens.com/sinumerik)

## **Target group**

This publication is intended for project engineers, commissioning engineers, machine operators and service and maintenance personnel.

## **Benefits**

The intended target group can use the Parameter Manual to test and commission the system or the plant correctly and safely.

Utilization phase: Setup and commissioning phase

## **Standard scope**

This documentation describes the functionality of the standard scope. Extensions or changes made by the machine manufacturer are documented by the machine manufacturer.

Other functions not described in this documentation might be executable in the control. This does not, however, represent an obligation to supply such functions with a new control or when servicing.

Furthermore, for the sake of clarity, this documentation does not contain all detailed information about all types of the product and cannot cover every conceivable case of installation, operation or maintenance.

## **Technical Support**

You will find telephone numbers for other countries for technical support in the Internet under <http://www.siemens.com/automation/service&support>

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## Machine and setting data

### 1.1 Explanation of the machine/setting data

#### 1.1.1 Information about the data tables

This List Manual provides information on all the machine and setting data.

A functional description of the data is provided in the Function Manual indicated in the cross reference.

#### For additional descriptions

Further detailed information is available directly through the online help of the control system.

#### 1.1.2 Structure of the data tables

##### Standard table

The standard table contains all the important information about a SINUMERIK machine data.

MD number	Identifier			Display filter	Reference	
Units	Name			Data type	Effectiveness	
Attributes						
System	Dimension	Default value (LIN/RED)	Minimum value (LIN/RED)	Maximum value (LIN/RED)	Protection	Class

##### Expanded table

The expanded table includes data from the standard table plus additional rows with system-specific values.

MD number	Identifier			Display filter	Reference	
Units	Name			Data type	Effectiveness	
Attributes						
-	Dimension	Default value (LIN/RED)	Minimum value (LIN/RED)	Maximum value (LIN/RED)	Protection	Class
<System 1>	-	-	-	-	-/-	
<System 2>	-	-	-	-	-1/-	

1.1 Explanation of the machine/setting data

A minus sign "-" in a field means that the same value as for <System 1> applies for the specified system.

The entry "-/-" in the "Protection" field means that the machine data is not available for the specified system.

**Example:**

18353	MM_M_FILE_MEM_SIZE			EXP, N02	S7	
-	Memory size for cycles/files of the machine manufacturer			DWORD	POWER ON	
840dsl-71	3	512,0,0	0	9216	1/1	M
840dsl-72	3	512,0,0	0	15360	1/1	M
840dsl-73	3	512,0,0	0	15360	1/1	M

**1.1.3 Meaning of table fields**

**MD number**

The "MD number" field contains the machine data number. This number is displayed in the data lists on the user interface of the control.

**Identifier**

The "Identifier" field contains the unique alphanumeric identifier of the machine data. The machine data is, for example, addressed by means of this identifier (with an additional label) for programming in the part program.

This identifier is displayed in the data lists on the user interface of the control.

**Reference**

As a cross reference to the functional description of the data, the "Reference" field contains the short designation of the corresponding submanual of a function manual.

Reference is made to the following submanuals:

- Function Manual Basic Functions, submanuals: A2, A3, B1, B2, D1, F1, G2, H2, K1, K2, N2, P1, P3, P4, R1, S1, V1, W1, Z1
- Function Manual Extended Functions, submanuals: A4, B3, B4, H1, K3, K5, M1, M5, N3, N4, P2, P5, R2, S3, S7, T1, W3, W4, Z2
- Function Manual Special Functions, supporting manuals: F2, G1, G3, K6, M3, R3, S9, T3, TE01, TE02, TE1, TE3, TE4, TE6, TE7, TE8, TE9, V2, W5, W6, Z3
- Function Manual Safety Integrated, FBSI



- Function Manual Tool Management, FBWsl
- Function description, ISO Dialects for SINUMERIK, FBFA

### Units/system of units

Depending on MD10240 \$MN\_SCALING\_SYSTEM\_IS\_METRIC, the physical units differ as follows:

MD10240=1	MD10240=0
mm	inch
mm/min	inch/min
m/sec <sup>2</sup>	inch/sec <sup>2</sup>
m/sec <sup>3</sup>	Inch/sec <sup>3</sup>
mm/rev.	inch/rev.

If the MD is not based on any physical unit, the field is marked with "-".

#### Note

The default setting is MD10240 \$MN\_SCALING\_SYSTEM\_IS\_METRIC = 1 (metric)

### Name

The "Name" field contains the name of the data in plain text.

### Effectiveness

The "Activation" field contains the action that must be performed by the user in order for a change to take effect.

Effectiveness		User action
po	POWER ON	Alternatively: <ul style="list-style-type: none"> <li>• "Reset(po)" softkey</li> <li>• Switch voltage off/on</li> </ul>
cf	NEW_CONF	Alternatively: <ul style="list-style-type: none"> <li>• Softkey: "Activate MD" New values will be effective only if all the channels of the mode group to which the axis belongs to are in the "Reset" state.</li> <li>• Part program command: NEWCONF New values for position-controlled axs/spindles will be effective only if the affected axis/spindle is stationary. For non-position-controlled spindles new values take effect immediately.</li> </ul>
re	RESET	Alternatively: <ul style="list-style-type: none"> <li>• "Reset(po)" softkey</li> <li>• Program end reset (M02/M30)</li> </ul>
so	IMMEDIATELY	After entering the value

The activation levels are listed according to their priority.

- po = highest priority
- so = lowest priority

## Protection

The "Protection" field contains the protection level for reading or writing to the data in the form: Read/write.

Value	Protection level
0 or 10	System
1 or 11	Manufacturer
2 or 12	Service
3 or 13	User
4 or 14	Key-operated switch position 3
5 or 15	Key-operated switch position 2
6 or 16	Key-operated switch position 1
7 or 17	Key-operated switch position 0

The protection level for user data (GUD) is defined with the numbers 10 to 17.

## Class

The data class attributes of machine, setting and option data are normally derived from the write rights of the corresponding data.

The following data classes are available:

Data class	Write rights	Access right
S (System)	System	Protection level 0 (password: System)
M (Manufacturer)	Manufacturer/Service	Protection levels 1 and 2 (password: Service)
I (Individual) Note: Individual machine data are grouped in this data class, e.g. the leadscrew error compensation values. Depending on the contents, these are accessible via different protection levels.	Manufacturer/Service or User	Protection levels 1 and 2 (password: Service) or Protection level 3 (user password)
U (User)	User	Protection level 3 (password: User) Protection levels 4 and 7 (key-operated switch)

## Display filter

The "Display filter" field contains the identifier of the data filter setting that enables the data to be seen. Using the filter setting, the exact data areas required at a given time can be selected for display.

ID	Data area
EXP	Expert mode
Drive machine data	
D00	Display signals
D01	Controller data
D02	Monitoring/limiting functions
D03	Message data
D04	Status data
D05	Motor/power unit
D06	Measuring system
D07	Safety Integrated
D08	Standard machine
General machine data	
N01	Configuration/scaling
N02	Memory configuration
N03	PLC machine data
N04	Drive control
N05	Status data/diagnostics
N06	Monitoring/limiting functions
N07	Auxiliary functions
N08	Corrections/compensations
N09	Technological functions
N10	I/O configuration
N11	Standard machine
A12	NC language, ISO dialect
Channel-specific machine data	
C01	Configuration
C02	Memory configuration
C03	Initial states
C04	Auxiliary functions
C05	Velocities
C06	Monitoring/limiting functions
C07	Transformations
C08	Corrections/compensations
C09	Technological functions
C10	Standard machine
C11	NC language, ISO dialect

ID	Data area
<b>Axis-specific machine data</b>	
A01	Configuration (including memory)
A02	Measuring system
A03	Machine geometry
A04	Velocities / accelerations
A05	Monitoring/limiting functions
A06	Spindle
A07	Controller data
A08	Status data
A09	Corrections/compensations
A10	Technological functions
A11	Standard machine
A12	NC language, ISO dialect
<b>Display machine data</b>	
H01	ShopMill
H02	ShopTurn
H03	ManualTurn
H04	Access levels
H05	Standard machine

### System

In the "System" field, the control system is specified for which the data with the correspondingly entered values applies.

The following entries are possible:

840dsl-71	NCU710
840dsl-72	NCU720
840dsl-73	NCU730

If this field is empty, the data is valid for all systems.

### Dimension

The "Dimension" field contains the number of elements of a data field.

### Default value

The "Default value" field contains the value that is used to preset the machine data.

Some machine data is preset with different default values, depending on the NCU that is used.

#### Note

When input via the user interface, this is limited to ten digits plus comma and sign.

In the bracket "LIN/RED" the linear axis or rotary axis value is specified.

## Range of values

The "Minimum value" and "Maximum value" fields contain the lower limit and upper limit, respectively, of the permissible range of the data.

If the "Minimum value" and "Maximum value" fields contain the string " \*\*\* ", an explicit range is not defined for this data. In this case, the range is determined by the specified data type.

## SINUMERIK data types

The "Data type" field contains the following data types:

Data type	Range of values
BOOLEAN	Machine data bit (1 or 0)
BYTE	Integer values ( -128 to 127 )
DOUBLE	Real values ( $\pm ( 2.2 * 10^{-308}$ to $1.8 * 10^{+308} )$ )
DWORD	Integer values ( -2147483648 to +2147483647 )
DWORD	Hex values ( 0 to FFFF FFFF )
STRING	Character string (max. 16 characters) consisting of upper-case letters with digits and underscore
UNSIGNED WORD	Integer values ( 0 to 65536 )
SIGNED WORD	Integer values ( -32768 to 32767 )
UNSIGNED DWORD	Integer values ( 0 to 4294967300 )
SIGNED DWORD	Integer values ( -2147483650 to 2147483649 )
WORD	Hex values ( 0000 to FFFF )
FLOAT DWORD	Real values ( $\pm ( 8.43 \times 10^{-37}$ to $3.37 \times 10^{38} )$ )
UBYTE	Integer values ( 0 to 255 )
LONG	Integer values ( 4294967296 to 4294967295 )

## Attributes

The "Attributes" field contains additional attributes of the data:

Attribute	Meaning
NBUP	No Back UP: The data is not backed up as part of the data backup.
ODLD	Only DownLoad: The data can only be written to via an ini file, archive, or from the part program.
NDL D	No DownLoad: The data can only be written to via the user interface.

1.1 Explanation of the machine/setting data

Attribute	Meaning
SFCO	SaFety COnfiguration: Component of the "Safety Integrated".
SCAL	SCaling ALarm: Scaling data; when changed, alarm 4070 is displayed
LINK	LINK description: The data describes a link cluster, component of the "NCU Link" function
CTEQ	ConTainer EQual: The data must be the same for all axes in an axis container, component of the "Axis container" function
CTDE	ConTainer DEscription: The data describes an axis container, component of the "Axis container" function

1.1.4 Number ranges of the machine and setting data

Number ranges SINUMERIK

The machine and setting data are divided into number ranges.

The identifier specified in the data description is displayed on the user interface. However, if the data is addressed in the part program, for example, the identifier of the relevant data area must precede the data identifier.

Data area		Identifier	Description
From	to		
9000	9999	\$MM_	Display machine data
10000	18999	\$MN_	General NC machine data and general machine data for Safety Integrated
19000	19999	\$ON_	Option data
20000	28999	\$MC_	Channel-specific machine data
29000	29999	\$OC_	Channel-specific option data
30000	38999	\$MA_	Axis-specific machine data and axis-specific machine data for Safety Integrated
39000	39999		Reserved
41000	41999	\$SN_	General setting data
42000	42999	\$SC_	Channel-specific setting data
43000	43999	\$SA_	Axis-specific setting data
51000	51299	\$MNS_	General configuration machine data
51300	51999		General cycle machine data
52000	52299	\$MCS_	Channel-specific configuration machine data
52300	52999		Channel-specific cycle machine data
53000	53299	\$MAS_	Axis-specific configuration machine data
53300	53999		Axis-specific cycle machine data
54000	54299	\$SNS_	General configuration setting data
54300	54999		General cycle setting data

Data area		Identifier	Description
From	to		
55000	55299	\$SCS_	Axis-specific configuration setting data
55300	55999		Axis-specific cycle setting data
56000	56299	\$SAS_	Axis-specific configuration setting data
56300	56999		Axis-specific cycle setting data

## Data Identifiers

Characters	Meanings
\$	System variables
M	Machine data (first letter)
S	Setting data (first letter)
O	Option data (first letter)
M, N, C, A	Subarea (second letter)
S	Siemens data (third letter)

### Note

Axis-specific data can also be addressed with the axis name as an index. The internal axis identifier (AX1, AX2, AX3, etc.) or the identifier specified in MD10000 \$MN\_AXCONF\_MACHAX\_NAME\_TAB can be used as the axis name.

### Example:

```
$MC_JOG_VELO[Y1]=2000
```

The JOG velocity of axis Y1 is 2000 mm/min.

### Example:

```
$MA_FIX_POINT_POS[0,X1]=500.000
```

The value 500 is assigned to the first fixed point position on axis 1.

### Examples:

```
$MN_AUXFU_GROUP_SPEC[2]='H41'
```

If the content of a machine data is a STRING (e.g. Y1) or a hexadecimal value (e.g. H41) the contents must lie between " ' " (e.g. 'H41').

Output instant in time of the auxiliary functions of the 3rd auxiliary function group.

```
$MN_AXCONF_MACHAX_NAME_TAB[0]='X1'
```

String "X1" is assigned as name for the first machine axis.

```
$MA_REFP_SET_POS[0,X1]=100.00000
```

A value of 100 mm is assigned to the first reference point of axis X1.

**Examples:**

Assignment to channel-specific machine data:

```

CHANDATA(1)                ; Selection of the first channel
$MC_CHAN_NAME='CHAN1'      ; Name of the first channel
$MC_AXCONF_GEOAX_NAME_TAB[1]='Y' ; Name of the 2nd geometry axis
                                ; of the first channel 'Y'
R10=33.75                  ; R10 of the first channel
    
```

**1.1.5 Structure of the data tables of SINAMICS parameters**

**Basic structure of the parameter description**

The tables of SINAMICS parameters all have the following standard structure:

Parameter number	BICO: Full parameter name / short parameter name		
Drive object (function module)	Can be changed:	Calculated:	Access level:
	Data type:	Dynamic index:	Function diagram:
	P group:	Unit group:	Unit selection:
	Not for motor type:	Normalizing	Expert list:
	Min.	Max.	Factory setting

**Example**

r0025[0...3]	CO: Input voltage, smoothed		
A_INF, S_INF	Can be changed: -	Calculated: -	Access level: 2
	Data type: FloatingPoint32	Dynamic index:	Function diagram: 8850, 8950
	P group: Display, signals	Unit group: -	Unit selection: -
	Not for motor type: -	Normalization p2001	Expert list: 1
	Min - [Vrms]	Max - [Vrms]	Factory setting - [Vrms]

**References**

You can find a detailed description of SINAMICS parameters in the following document:  
 SINAMICS S120/S150 List Manual



## 1.1.6 Meaning of the table fields of SINAMICS parameters

### Parameter number pxxxx[0...n]

The "parameter number" field contains the number of the parameter.

The number consists of a leading "p" or "r", followed by the parameter number and the index (optional).

p...	Adjustable parameter (read and write parameter)
r...	Display parameter (read-only)
p0918	Adjustable parameter 918
p0099[0...3]	Adjustable parameter 99, indices 0 to 3
p1001[0...n]	Adjustable parameter 1001, indices 0 to n (n = configurable)
r0944	Display parameter 944

### BICO: Full parameter name / short parameter name

The following abbreviations can appear in front of the parameter name:

BI	Binector Input This parameter selects the source of a digital signal.
BO	Binector Output This parameter is available as an digital signal for interconnection with other parameters.
CI	Connector Input This parameter selects the source of an "analog" signal.
CO	Connector Output This parameter is available as an "analog" signal for interconnection with other parameters.
CO/BO	Connector/Binector Output This parameter is available as both an "analog" and also as digital signals for interconnection with other parameters.

### Drive object (function module)

A drive object (DO) is an independent, "self-contained" functional unit with its own parameters, faults messages, and alarms.

The parameter list specifies the associated drive object and function module for each individual parameter.

### Can be changed

The "-" sign indicates that the parameter can be changed in any object state and that the change will be effective immediately.

The information C1(x), C2(x), T, U ((x): optional) means that the parameter can be changed only in the specified drive object state and that the change will not take effect until the object switches to another state. This can be one or more states.

The following states are available:

C1(x)	Commissioning device C1 Device is in the process of being commissioned (p0009 > 0). The pulses cannot be enabled. The parameter can only be changed in the following device commissioning settings (p0009 > 0): C1: can be changed for all settings p0009 > 0. C1(x): can only be changed for the settings p0009 = x. A modified parameter value does not take effect until the device commissioning mode is exited with p0009 = 0.	C1: Commissioning 1
C2(x)	Drive object commissioning The drive is in the process of being commissioned (p0009 = 0 and p0010 > 0). The pulses cannot be enabled. The parameter can only be changed in the following device commissioning settings (p0010 > 0): C2: can be changed for all settings p0010 > 0. C2(x): can be changed for the settings p0010 = x. A modified parameter value does not take effect until drive commissioning mode is exited with p0010 = 0	C2: Commissioning 2
U	Operation The pulses are enabled	U: Run
T	Ready The pulses are not enabled Status "C1(x)" or "C2(x)" is not active.	T: Ready to run

### Calculated

Specifies whether the parameter is influenced by automatic calculations. The calculation attribute defines which activities influence the parameter.

### Access level

Specifies the access level required to be able to display and change this parameter. The required access level can be set using p0003.

Parameters with the following access level are password-protected:

1. Standard
2. Extended

3. Expert

4. Service

Parameters with this access level are protected by a password.

## Data type

The information on the data type can consist of the following two items (separated by a slash).

- First information  
Data type of the parameter.
- Second information (for binector or connector input only)  
Data type of the signal source to be interconnected (binector/connector output).

Parameters can have the following data types:

I8	Integer8	8-bit integer number
I16	Integer16	16-bit integer number
I32	Integer32	32-bit integer number
U8	Unsigned8	8 bits without sign
U16	Unsigned16	16 bits without sign
U32	Unsigned32	32 bits without sign
Float	FloatingPoint32	32-bit floating point number

## Dynamic index

For parameters with a dynamic index [0 to n], the following information is specified:

- Data set (if available).
- Parameter for the number of indices (n = number -1).

## Function diagram

The parameter is included in this function diagram. The structure of the parameter function and its relationship with other parameters are shown in the function diagram.

## P group

Specifies the functional group to which this parameter belongs. The required parameter group can be set via p0004.

## Unit, unit group, unit selection

The standard unit of a parameter is specified in square brackets after the values for "Min", "Max", and "Factory setting".

For parameters where the unit can be changed, "Unit Group" and "Unit Selection" specify which group this parameter belongs and which parameter can be used to change the unit.

### Not for motor type

Specifies for which motor type this parameter has no significance

ASM	Induction motor
FEM	Separately excited synchronous motor
PEM	Permanent-magnet synchronous motor
REL	Reluctance motor/SIEMOSYN motor

### Normalizing

Specification of the reference variable with which a signal value is automatically converted for a BICO interconnection.

The following reference variables are possible:

p2000 ... p2007:	Reference speed, reference voltage, etc.
TEMP:	100°C = 100%
PERCENT:	1.0 = 100 %
4000H:	4000 hex = 100 %

### Expert list

Specifies whether this parameter is available in the expert list of the specified drive objects in the commissioning software.

- 1: Parameter does exist in the expert list.
- 0: Parameter does not exist in the expert list.

### Min, max, factory setting

Min.	Minimum value of the parameter [unit]
Max.	Maximum value of the parameter [unit]
Factory setting	Value when supplied [unit]

## 1.1.7 Number ranges of the parameters

### Number ranges

Parameters are grouped into the following number ranges:

Range		Description
From	to	
0000	0099	Display and operation
0100	0199	Commissioning
0200	0299	Power unit
0300	0399	Motor
0400	0499	Encoder
0500	0599	Technology and units, motor-specific data, probes
0600	0699	Thermal monitoring, maximum current, operating hours, motor data, central probe
0700	0799	Control Unit terminals, measuring sockets
0800	0839	CDS, DDS data sets, motor changeover
0840	0879	Sequence control (e.g. signal source for ON/OFF1)
0880	0899	ESR, parking, control and status words
0900	0999	PROFIBUS/PROFIdrive
1000	1199	Setpoint channel (e.g. ramp-function generator)
1200	1299	Functions (e.g. motor holding brake)
1300	1399	U/f control
1400	1799	Closed-loop control
1800	1899	Gating unit
1900	1999	Power unit and motor identification
2000	2009	Reference values
2010	2099	Communication (fieldbus)
2100	2139	Faults and alarms
2140	2199	Signals and monitoring
2200	2359	Technology controller
2360	2399	Staging, hibernation
2500	2699	Position control (LR) and basic positioning (EPOS)
2700	2719	Reference values, display
2720	2729	Load gearbox
2800	2819	Logic operations
2900	2930	Fixed values (e.g. percent, torque)
3000	3099	Motor identification results
3100	3109	Real-time clock (RTC)
3110	3199	Faults and alarms
3200	3299	Signals and monitoring

## 1.1 Explanation of the machine/setting data

Range		Description
From	to	
3400	3659	Infeed closed-loop control
3660	3699	Voltage Sensing Module (VSM), Braking Module internal
3700	3779	Advanced Positioning Control (APC)
3780	3819	Synchronization
3820	3849	Friction characteristic
3850	3899	Functions (e.g. long stator)
3900	3999	Management
4000	4599	Terminal Board, Terminal Module (e.g. TB30, TM31)
4600	4699	Sensor Module
4700	4799	Trace
4800	4849	Function Generator
4950	4999	OA application
5400	5499	Line droop control (e.g. shaft generator)
5500	5599	Dynamic grid support (solar)
5900	6999	SINAMICS GM/SM/GL/SL
7000	7499	Parallel connection of power units
7500	7599	SINAMICS SM120
7700	7729	External messages
7770	7789	NVRAM, system parameters
7800	7839	EEPROM read/write parameters
7840	8399	Internal system parameters
8400	8449	Real-time clock (RTC)
8500	8599	Data and macro management
8600	8799	CAN bus
8800	8899	Communication Board Ethernet (CBE), PROFIdrive
8900	8999	Industrial Ethernet, PROFINET, CBE20
9000	9299	Topology
9300	9399	Safety Integrated
9400	9499	Parameter consistency and storage
9500	9899	Safety Integrated
9900	9949	Topology
9950	9999	Diagnostics, internal
10000	10199	Safety Integrated
11000	11299	Free technology controller 0, 1, 2
20000	20999	Free function blocks (FBLOCKS)
21000	25999	Drive Control Chart (DCC)
50000	53999	SINAMICS DC MASTER (DC closed-loop control)
61000	61001	PROFINET

## 1.2 Display machine data

Product: Handbuch\_Sinumerik, Version: V14.0, Language: eng  
Objects:

Number	Identifier			Display filters	Reference	
Unit	Name			Data type	Active	
Attributes						
System	Dimension	Default value (LIN/ROT)	Minimum value (LIN/ROT)	Maximum value (LIN/ROT)	Protection	Class

**Description:** Description

9006	DISPLAY_SWITCH_OFF_INTERVAL			-	-	
-	Time for screen saver			DWORD	PowerOn	
-						
-	-	60	0	180	7/3	-

**Description:** This machine data defines the time in minutes after which the screen automatically switches to dark if no key has been pressed on the keyboard in the meantime. The value 0 disables automatic light/dark switching.

Note:

The screen is only switched light/dark automatically when IS screen dark = 0.

Related to:

IS screen dark (DB19, ... DBX0.1)

9009	KEYBOARD_STATE			-	-	
-	Keyboard shift behavior at booting			BYTE	PowerOn	
-						
-	-	0	0	2	7/3	-

**Description:** This machine data defines the Shift behavior (SW-CAPSLOCK) of the keyboard. Basic configuration of the Shift behavior of the keyboard  
0: SW-CAPSLOCK OFF  
2: SW-CAPSLOCK ON

9032	HMI_MONITOR			-	-	
-	Define PLC data for HMI screen info			STRING	PowerOn	
-						
-	-		-	-	7/1	-

**Description:** Pointer, with offset, to a PLC data block. This is required to report HMI monitor information to the PLC, e.g. active HMI task.  
Format: PLC-specific format for specifying a data block with byte offset, e.g. DB60.DBB10 for data block 60, byte 10.  
The monitor information reported by the HMI has a maximum length of 8 bytes.

9056	ALARM_ROTATION_CYCLE	-	-			
-	Rotation cycle time for alarm display	DWORD	PowerOn			
-						
-	-	0	0	10000	7/3	-

**Description:** Rotation cycle time in the alarm display:  
 <500: no rotation in the alarm line  
 500 - 10000: cycle duration of alarm rotation in milliseconds  
 If a valid cycle time has been set, all alarms are displayed in the alarm line one after the other.  
 Each alarm is displayed for the specified time until it is replaced by the next alarm.  
 If no alarm is present, cycle alarms or program messages are displayed, if required. However, these do not rotate.

9100	CHANGE_LANGUAGE_MODE	-	-			
-	Language selection mode	BYTE	Immediately			
-						
-	-	1	1	2	7/3	-

**Description:** Language selection mode is defined:  
 1 = directly via selection list  
 2 = via setting of the 1st and 2nd language

9102	SHOW_TOOLTIP	-	-			
-	Display tooltip	BYTE	Immediately			
-						
-	-	1	0	1	7/3	-

**Description:** If the MD has been set to 1, tooltips will be displayed.

9103	TOOLTIP_TIME_DELAY	-	-			
s	Time delay tooltip display	BYTE	Immediately			
-						
-	-	1	0	60	7/3	-

**Description:** Time delay for display of the tooltips in seconds.

9105	HMI_WIDE_SCREEN	-	-			
-	Display of the HMI as wide screen with OEM area always visible	BYTE	PowerOn			
-						
-	-	0	0	1	7/2	-

**Description:** Display of the HMI as wide screen. Above the HMI there is a separate application field that is designed by the machine manufacturer.

9106	SERVE_EXTCALL_PROGRAMS	-	-			
-	Process EXTCALL calls	BYTE	PowerOn			
-						
-	-	1	0	1	7/3	-

**Description:** HMI processes reload requirements of the NC for EXTCALL calls.



9107	DRV_DIAG_DO_AND_COMP_NAMES	-	-			
-	Expanded drive diagnostics: DO and components	BYTE	Immediately			
-						
-	-	0	0	3	7/3	-

**Description:**

- 0: DO and component type names
- 1: Real DO names and component type names
- 2: DO type names and real component names
- 3: Reale DO names and real component names

9108	SINUMERIK_INTEGRATE	-	-			
-	Activating SINUMERIK Integrate products	BYTE	Immediately			
-						
-	-	0	0	1	7/3	-

**Description:** If the machine data has been set to 1, the SINUMERIK Integrate softkey appears as the operating area.

9110	ACCESS_HMI_EXIT	-	-			
-	Protection level of exit softkey	BYTE	PowerOn			
-						
-	-	1	0	7	7/2	-

**Description:** Protection level for the exit softkey (HMI restart) in the operating area menu

9900	MD_TEXT_SWITCH	-	-			
-	Plaintexts instead of MD identifier	BOOLEAN	Immediately			
-						
-	-	0	-	-	7/3	-

**Description:** If the MD has been set to 1, clear text is displayed on the operator panel instead of the machine data identifiers.

9990	SW_OPTIONS	-	-			
-	Enable HMI software options	DWORD	Immediately			
-						
-	-	0	-	-	1/1	-

**Description:** Here you can enable the HMI software options

## 1.3 NC machine data

### 1.3.1 General machine data

Number	Identifier			Display filters	Reference	
Unit	Name			Data type	Active	
Attributes						
System	Dimension	Default value (LIN/ROT)	Minimum value (LIN/ROT)	Maximum value (LIN/ROT)	Protection	Class

**Description:** Description

10000	AXCONF_MACHAX_NAME_TAB			N01, N11	K2,F1,G2,F2,K5,M1	
-	Machine axis name			STRING	PowerOn	
-						
-	31	X1, Y1, Z1, A1, B1, C1, U1...	-	-	7/2	M

**Description:** List of the machine axis identifiers.

The name of the machine axis is entered in this MD.

In addition to the fixed, defined machine axis identifiers "AX1", "AX2" ..., user-defined identifiers for the machine axes can also be assigned in this data.

The identifiers defined here can be used parallel to the fixed, defined identifiers for addressing axial data (e.g. MD) and machine axis-related NC functions (reference point approach, axial measurement, travel to fixed stop).

Special cases:

- The input machine axis name must not conflict with the names and assignments of the geometry axes (MD20060 \$MC\_AXCONF\_GEOAX\_NAME\_TAB, MD20050 \$MC\_AXCONF\_GEOAX\_ASSIGN\_TAB) or channel axes (MD20080 \$MC\_AXCONF\_CHANAX\_NAME\_TAB, MD20070 \$MC\_AXCONF\_MACHAX\_USED).
- The input machine axis name must not be the same as the names for Euler angles (MD10620 \$MN\_EULER\_ANGLE\_NAME\_TAB), names for path-relevant orientation (MMD10624 \$MN\_ORIPATH\_LIFT\_VECTOR\_TAB), names for normal vectors (MD10630 \$MN\_NORMAL\_VECTOR\_NAME\_TAB), names for directional vectors (MD10640 \$MN\_DIR\_VECTOR\_NAME\_TAB), names for rotation vectors (MD10642 \$MN\_ROT\_VECTOR\_NAME\_TAB), names for intermediate vector components (MD10644 \$MN\_INTER\_VECTOR\_NAME\_TAB), names for intermediate circle point coordinates with CIP (MD10660 \$MN\_INTERMEDIATE\_POINT\_NAME\_TAB) or the names for interpolation parameters (MD10650 \$MN\_IPO\_PARAM\_NAME\_TAB).
- The input machine axis name must not include any of the following reserved address letters:

D Tool offset	(D function)	E Reserved
F Feedrate	(F function)	G Preparatory function
H Auxiliary function	(H function)	L Subroutine call
M Miscellaneous function	(M function)	N Subblock
P Subroutine number of passes		R Arithmetic parameters
S Spindle speed	(S function)	T Tool (T function)

The name must not include any keywords (e.g. DEF, SPOS etc.) or pre-defined identifiers (e.g. ASPLINE, SOFT).

The use of an axis identifier consisting of a valid address letter (A, B, C, I, J, K, Q, U, V, W, X, Y, Z), followed by an optional numerical extension (1-99) gives slightly better block cycle times than a general identifier. If no identifier is assigned to a machine axis, then the predefined name ("AXn") applies to the nth machine axis.

Related to:

MD20060 \$MC\_AXCONF\_GEOAX\_NAME\_TAB (geometry axis name in the channel [GEOAxisno.]

MD20080 \$MC\_AXCONF\_CHANAX\_NAME\_TAB (channel axis name in the channel [Channelaxisno.]

10002	AXCONF_LOGIC_MACHAX_TAB			N01	B3,K2	
-	Logical NCK machine axis image			STRING	PowerOn	
-						
-	31	AX1, AX2, AX3, AX4, AX5, AX6...	-	-	3/2	M

**Description:**

List of machine axes available on an NCU. (Logical NCK machine axis image) MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB creates another NCK global, logical layer between the channel axis layer and the machine axes in an NCU or NCU grouping. This layer is called the "Logic NckMachineAxImage", abbreviation: LAI ).

Axes can only be assigned between different NCUs via this new intermediate layer!

The entry \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB[ n ] = NCj\_AXi assigns the machine axis i on the NCU j to the axis index "n" in the LAI.

This makes the following assignments possible:

1. Local axes (default setting: AX1, AX2 ... AX31)

The entry \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB[n] = AX3 assigns the local axis AX3 to axis index n. (Default setting AX3 is present for n = 3 . Thus there is compatibility in software version 5 for MD blocks for software versions up to 4).

2. Link axes (axes that are physically connected to another NCU). The entry \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB[n] = NCj\_AXi assigns axis AXi (link axis) on NCU j to axis index n.

Limits:

n Machine axis address (of the local NCU) 1 ... 31

j NCU number 1 ... 16

i Machine axis address (of the local/remote NCU) 1 ... 31

3. Axis container in which there are once again either local or link axes. The entry \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB[n] = CTr\_SLs assigns container r and slot s to axis index n.

Limits:

n Machine axis address (of the local NCU) 1 ... 31

r Container number 1 ... 16

s Slot number (location) in the container 1 ... 32

The channel layer is formed via the related machine data \$MD20070 \$MC\_AXCONF\_MACHAX\_USED and no longer points (small P5) directly to the machine axes but to the new LAI layer.

\$MC\_AXCONF\_MACHAX\_USED [k]=n assigns the LAI axis number "n" to the axis index "k" in the channel layer.

The machine axis and the corresponding NCK can then be determined from the LAI axis number.

1.3 NC machine data

If a number of NCUs point to the same machine axis in the cluster as a result of MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB, then the axial machine data MD30554 \$MA\_AXCONF\_ASSIGN\_MASTER\_NCU must define which NCU generates the master NCU and the setpoint values for the position controller after startup.

Related to:

MD12... \$MN\_AXCT\_AXCONF\_ASSIGN\_TABi (make entries in containers i)

10010	ASSIGN_CHAN_TO_MODE_GROUP	N01, N02, N11	K1,K5
-	Channel valid in mode group	DWORD	PowerOn
-			
-	10	1, 0, 0, 0, 0, 0, 0, 0...	0
		10	7/2
			M

**Description:**

This MD assigns the channel to a mode group  
 Entry value 1 => Assigned to 1st mode group  
 Entry value 2 => Assigned to 2nd mode group  
 etc.

From software version 4, it is permissible not to assign a mode group number to individual channels.

Channel gaps are allowed, in order to favor uniform configuration in similar types of machines. In this case, the number 0 is assigned to the channel instead of assigning a mode group number equal to or greater than 1. The channel is not activated, however it is handled like an active channel when counting the channels.

E.g.

```
ASSIGN_CHAN_TO_MODE_GROUP[0] = 1
ASSIGN_CHAN_TO_MODE_GROUP[1] = 1
ASSIGN_CHAN_TO_MODE_GROUP[2] = 0 ; gap
ASSIGN_CHAN_TO_MODE_GROUP[3] = 1
```

Application example:

Select desired channel via HMI and enter with MD10010  
 \$MN\_ASSIGN\_CHAN\_TO\_MODE\_GROUP = 1.

Note:

This MD must still be entered even when only one mode group is present.

10050	SYSCLOCK_CYCLE_TIME	N01, N05, N11,	G3,G2,R1
s	System clock cycle	DOUBLE	PowerOn
SFCO			
-	-	0.002	0.001
		0.008	7/2
			M

**Description:**

Basic cycle time of the system software

The cycle times settings of cyclical tasks (position controller/IPO ) are multiples of this basic cycle. Apart from special applications in which MD10060 \$MN\_POSCTRL\_SYSCLOCK\_TIME\_RATIO is set greater than 1, the basic cycle corresponds to the position controller cycle.

For PROFIBUS/PROFINET:

In the case of systems with a PROFIBUS DP connection, this MD corresponds to the PROFIBUS DP cycle time. This time is read from the configuration file (SDB-Type-2000) during startup and written to the MD.

This MD can only be changed via the configuration file.

## Note:

Reducing this MD can result in an automatic correction of MD10062 \$MN\_POSCTRL\_CYCLE\_DELAY and MD10064 \$MN\_POSCTRL\_CYCLE\_DESVAL\_DELAY that cannot be undone by a subsequent increase!

## Details:

The basic cycle is incremented in multiples ( MD10080 \$MN\_SYSCLOCK\_SAMPL\_TIME\_RATIO ) of units of the measured value sampling cycle. During system startup, the entered value is automatically rounded up to a multiple of this incrementation.

## Note:

Discrete timer division ratios can give rise to the entered value producing a value that is not an integer after a Power OFF/ON.

## For example:

Input	= 0.005s	after Power OFF/ON	= 0.00499840
	or		
Input	= 0.006s	after Power OFF/ON	= 0.0060032

10059	PROFIBUS_ALARM_MARKER	N05	G3
-	PROFIBUS/PROFINET alarm flag (internal only)	BYTE	PowerOn
NBUP, NDL			
-	-	0	-
			0/0
			M

**Description:**

PROFIBUS/PROFINET alarm flag:

In this machine data, alarm requests for the PROFIBUS/PROFINET layer are stored beyond a reboot.

If conflicts arise between machine data 10050, 10060, 10070 and the data in the SDB on startup, the machine data are matched according to SDB, and an alarm is output on the next start up. These alarm requests are stored here.

## Related to:

MD10050 \$MN\_SYSCLOCK\_CYCLE\_TIME,  
MD10080 \$MN\_SYSCLOCK\_SAMPL\_TIME\_RATIO

10060	POSCTRL_SYSCLOCK_TIME_RATIO	N01, N05	G3
-	Factor for position control cycle	DWORD	PowerOn
SFCO			
-	-	1	1
		31	7/2
			M

**Description:**

The position-control cycle is stated as a multiple of the time units of the system basic cycle MD10050 \$MN\_SYSCLOCK\_CYCLE\_TIME.

## For PROFIBUS/PROFINET:

In the case of systems with a PROFIBUS DP connection, this MD represents the ratio between the PROFIBUS DP cycle and the position controller cycle, which is based on the PLC configuration.

10061	POSCTRL_CYCLE_TIME	N01, N05	G3
-	Position control cycle	DOUBLE	PowerOn
-			
-	-	0.0	-
			ReadOnly
			M

**Description:**

Position controller cycle time:

Display of the position controller cycle time (not modifiable !).

1.3 NC machine data

It is compiled internally from MD10050 \$MN\_SYSCLOCK\_CYCLE\_TIME and MD10060 \$MN\_POSCTRL\_SYSCLOCK\_TIME\_RATIO.

10062	POSCTRL_CYCLE_DELAY	N01, N05	G3
s	Position control cycle offset	DOUBLE	PowerOn
-			
-	-	0.0	0.000 0.008 7/2 M

**Description:** For PROFIdrive only:  
 Only relevant to operation with PROFIBUS drives.  
 Position controller cycle offset in relation to the PROFIBUS DP cycle.  
 Offsets that exceed the set DP cycle or are smaller than the maximum Tdx, are automatically corrected to a substitute value half the size of the DP cycle.  
 MD10062 \$MN\_POSCTRL\_CYCLE\_DELAY > 0:Default for position controller offset  
 MD10062 \$MN\_POSCTRL\_CYCLE\_DELAY = 0:Automatic determination of the position controller offset with max. Tdx from STEP7 project  
 Tdx\_max is determined through all equidistant buses.  
 The actually active offset value is displayed in MD 10063[1] \$MN\_POSCTRL\_CYCLE\_DIAGNOSIS.  
 Note:  
 MD10062 \$MN\_POSCTRL\_CYCLE\_DELAY > 0 can reduce MD10050 \$MN\_SYSCLOCK\_CYCLE\_TIME to the automatic correction of this MD that cannot be undone by a subsequent increase.  
 Recommendation:  
 In this case set the original value or default value once again.

10063	POSCTRL_CYCLE_DIAGNOSIS	EXP, N01, N05	-
s	Active timing	DOUBLE	PowerOn
-			
-	6	0.0, 0.0, 0.0, 0.0, 0.0, 0.0	- - ReadOnly M

**Description:** Diagnostic data related to the PROFIBUS/PROFINET cycle.  
 [0]: Latest time at which the actual values should be available (Tdx)  
 [1]: Actually active position controller cycle offset (Tm)  
 [2]: Latest time at which the setpoints were output by the position controller  
 [3]: Time at which the setpoint transfer to the drive via DMA was started for SOC-based modules  
 [4]: Time at which the setpoint transfer to the drive via DMA was finished for SOC-based modules.  
 [5]: 'Worst case' time since voltage on, at which the setpoint transfer to the drive via DMA was finished for SOC-based modules.  
 Diagnostic data are initialized with ZERO with each NCK power up

10064	POSCTRL_CYCLE_DESVAL_DELAY	N01, N05	G3
s	Clock skew of the DMA for the setpoints	DOUBLE	PowerOn
-			
-	-	0.0	0.000 0.008 7/2 M

**Description:** For SINAMICS-Integrated only:  
 Only relevant to operation with SINAMICS-Integrated drives on SOC modules.  
 Offset of the output of the setpoints via DMA in relation to the PROFIBUS DP cycle.

Offsets that exceed the set DP cycle are automatically corrected to a substitute value.

MD10062 \$MN\_POSCTRL\_CYCLE\_DESVAL\_DELAY > 0:Default setpoint offset

MD10062 \$MN\_POSCTRL\_CYCLE\_DESVAL\_DELAY = 0:Automatic determination of the setpoint offset on the basis of the hardware transfer rates

The actually active offset value is displayed in MD10063[4].

Note:

MD10064 \$MN\_POSCTRL\_CYCLE\_DESVAL\_DELAY > 0 can reduce MD10050

\$MN\_SYSCLOCK\_CYCLE\_TIME to the automatic correction of this MD, that cannot be undone by a subsequent increase.

Recommendation:

In this case set the original value or default value once again.

10065	POSCTRL_DESVAL_DELAY	N01			B3	
s	Position setpoint delay	DOUBLE			PowerOn	
-						
-	-	0.0	-0.1	0.1	7/2	M

**Description:** This MD can parameterize a delay of the setpoints in the position controller. The area of application is NCU-link when different position control cycles are parameterized on the NCUs and if the axes should nevertheless interpolate with one another. (Used for example for non-circular turning.)

This MD is used to optimize the automatic setting.

Related to:

MD32990 \$MA\_POSCTRL\_DESVAL\_DELAY\_INFO

10070	IPO_SYSCLOCK_TIME_RATIO	N01, N05, N11,			G3,R1	
-	Factor for interpolation cycle	DWORD			PowerOn	
SFCO						
-	-	4	1	100	7/2	M

**Description:** The interpolator cycle is stated as a multiple of the time units of the system basic cycle MD10050 \$MN\_SYSCLOCK\_CYCLE\_TIME.

Only integer multiples of the position control cycle can be set (set in MD10060 \$MN\_POSCTRL\_SYSCLOCK\_TIME\_RATIO). Values that are not an integer multiple of the position control cycle are automatically increased to the next integer multiple of the position control cycle before they become active (on next power up).

This is accompanied by alarm 4110 "IPO cycle changed to [ ] ms".

10071	IPO_CYCLE_TIME	N01, N05, N11,			G3	
-	Interpolator cycle	DOUBLE			PowerOn	
-						
-	-	0.0	-	-	ReadOnly	M

**Description:** Interpolation time

Display of the interpolator cycle time (not modifiable!).

It is compiled internally from MD10050 \$MN\_SYSCLOCK\_CYCLE\_TIME and MD10070 \$MN\_IPO\_SYSCLOCK\_TIME\_RATIO.

10072	COM_IPO_TIME_RATIO			N01, N05	-	
-	Division ratio between IPO and communication task			DOUBLE	PowerOn	
-						
-	-	1.0	0.0	100.0	7/2	M

**Description:** Division ratio between IPO and communication tasks. A value of 2 means, e.g., that the communication task is only processed in every second IPO cycle. This makes more time available for the other tasks. Overlarge values slow down the communication between the HMI and NCK.

Numerical values less than 1 downscale the IPO cycle. This value is adjusted so that only runtimes that are a multiple of the position controller time are possible for the communication task. A call period of about 10 ms is practical for the communication task.

10073	COM_IPO_STRATEGY			EXP	-	
-	Strategy for activation of communication.			DWORD	PowerOn	
-						
-	-	0x0F	1	0x7F	0/0	M

**Description:** The call frequency of the communication task can be controlled by MD10072 \$MN\_COM\_IPO\_TIME\_RATIO.

The communication tasks are activated cyclically. That has some advantages and disadvantages:

Advantages:

- The communication behavior of the NCK is deterministic in relation to the communication task.

Disadvantages:

- The communication task can lead to level overflows.
- In an unloaded NCK system, the speed of communication is determined by MD10072 \$MN\_COM\_IPO\_TIME\_RATIO. As this machine data is power ON, it cannot adapt to the current NCK operating mode. A typical problem is that uploading a part program can take a very long time on an unloaded NCK. In this case, the bottleneck is the communication task that only progresses in the relation defined by machine data COM\_IPO\_TIME\_RATIO.

This machine data has been introduced to eliminate the above-mentioned disadvantages. It makes the times at which the communication software is activated controllable. The machine data is bit-coded. The bits have the following meanings:

Bit 0:

The communication software is calculated cyclically

Bit 1:

The level time overflow monitoring is switched off for the cyclical communication task. This bit is only practical if bit zero is set. The task is implemented in a non-cyclical level that has a higher priority than the preparation/communication level. The communication task makes a delay of the time defined in COM\_IPO\_TIME\_RATIO after each cycle.

Bit 2:

The communication software is calculated at the start of the task which the domain services accept.

Bit 3:

The communication software is calculated at the end of the task which the domain services accept.



Bit 4:

The communication software is calculated at the start of the task which the domain services accept if a PDU upload has arrived. This bit is only useful if bit 2 is set.

Bit 5:

The communication software is calculated at the end of the task which the domain services accept if a PDU upload has arrived. This bit is only useful if bit 3 is set.

This machine data is only active in systems containing the Softbus communication software. This is in P6 the 840Di with MCI2 software and the solution line systems for P7.

The default value is 0x0F. This means that the COS is calculated prior to and after communication in order to minimize latencies.

10088	REBOOT_DELAY_TIME	EXP	K3
s	Reboot delay	DOUBLE	Immediately
-			
-	-	0.2	0.0
		1.0	2/2
			M

**Description:**

The reboot following PI "\_N\_IBN\_SS" is delayed by the time MD10088 \$MN\_REBOOT\_DELAY\_TIME.

The suppressable NOREADY alarm 2900 is triggered immediately by PI "\_N\_IBN\_SS".

If MD10088 \$MN\_REBOOT\_DELAY\_TIME falls below the MD36620 \$MA\_SERVO\_DISABLE\_DELAY\_TIME value of an axis, the axis is decelerated during MD10088 \$MN\_REBOOT\_DELAY\_TIME. The servo enable is then disabled. That is, the full MD36620 \$MA\_SERVO\_DISABLE\_DELAY\_TIME is NOT waited.

Alarm 2900 does not become active if MD10088 \$MN\_REBOOT\_DELAY\_TIME = 0.0, and there is no reboot delay.

The NCK waits beyond the stated delay time until the PI has been able to be acknowledged to the HMI. The total delay time may be as much as 2 s.

10089	SAFE_PULSE_DIS_TIME_BUSFAIL	N01, N06, -	FBSI
s	Delay time pulse suppr. for bus failure	DOUBLE	PowerOn
-			
-	-	0.0	0
		0.8	7/2
			M

**Description:**

Time after a communication failure at which safe pulse disable takes place. The drive can still respond autonomously to the bus failure during this time (see extended stop and retract)

This time is not waited before disabling pulses in the following cases:

- On selection of an external Stop A, a test stop or a test stop external switch off
- If SBH is active or on selection of SBH
- A pulse disable is parameterized immediately if an SG level is active or on selection of an SG level for which an immediate pulse disable is parameterized in \$MA\_SAFE\_VELO\_STOP\_MODE or \$MA\_SAFE\_VELO\_STOP\_REACTION.

Note:

\$MN\_SAFE\_PULSE\_DIS\_TIME\_BUSFAIL is transferred to the drive parameter MD 9580 with the copy function of the SI-MD and compared in the data cross-check. This general machine data is contained in the axial checksum calculation of the safety relevant machine data (\$MA\_SAFE\_ACT\_CHECKSUM, \$MA\_SAFE\_DES\_CHECKSUM).

1.3 NC machine data

10090	SAFETY_SYSCLOCK_TIME_RATIO	N01, N06, -			FBSI	
-	Factor for monitoring cycle	DWORD			PowerOn	
SFCO						
-	-	3	1	50	7/1	M

**Description:** Ratio between the monitoring cycle and the system clock cycle. The monitoring cycle is the product of this data and \$MN\_SYSCLOCK\_CYCLE\_TIME.

Special cases:  
 The monitoring cycle is checked during power on:

- It must be an integer multiple of the position-control cycle
- It must be < 25 ms

The factor is rounded down to the next possible value if the conditions are not fulfilled. The actual set monitoring cycle is displayed by \$MN\_INFO\_SAFETY\_CYCLE\_TIME.

A new value is also generated for the cross-check cycle, which is displayed by data \$MN\_INFO\_CROSSCHECK\_CYCLE\_TIME.

Note:  
 The monitoring cycle defines the monitoring response time. It must be noted that the CPU load increases as the monitoring cycle becomes shorter.

Related to:  
 MD 10050: \$MN\_SYSCLOCK\_CYCLE\_TIME  
 MD 10091: \$MN\_INFO\_SAFETY\_CYCLE\_TIME  
 MD 10092: \$MN\_INFO\_CROSSCHECK\_CYCLE\_TIME

10091	INFO_SAFETY_CYCLE_TIME	N01, N06, N05, -			FBSI	
s	Display of monitoring cycle time	DOUBLE			PowerOn	
-						
-	-	0.0	-	-	ReadOnly	M

**Description:** Display data: Displays the actually active monitoring cycle. The data cannot be written.

The data value is recalculated as soon as one of the following data are changed:  
 SAFETY\_SYSCLOCK\_TIME\_RATIO,  
 POSCTRL\_SYSCLOCK\_TIME\_RATIO  
 SYSCLOCK\_CYCLE\_TIME

The new value does not become active until after the next Power On.

Related to:  
 MD 10090: \$MN\_SAFETY\_SYSCLOCK\_TIME\_RATIO

10092	INFO_CROSSCHECK_CYCLE_TIME	N01, N06, N05, -			FBSI	
s	Display of cycle time for cross-checking	DOUBLE			PowerOn	
-						
-	-	0.0	-	-	ReadOnly	M

**Description:** Display data: Maximum cross-checking cycle in seconds.

Derived from INFO\_SAFETY\_CYCLE\_TIME and the number of data to be cross-checked (this may vary according to the type of drive used for the individual axes).

The data value is recalculated as soon as one of the following data are changed:

SAFETY\_SYSCLOCK\_TIME\_RATIO,  
 POSCTRL\_SYSCLOCK\_TIME\_RATIO  
 SYSCLOCK\_CYCLE\_TIME

The new value does not become active until after the next Power On.

Related to:

MD 10090: \$MN\_SAFETY\_SYSCLOCK\_TIME\_RATIO  
 MD 36992: \$MA\_SAFE\_CROSSCHECK\_CYCLE

10093	INFO_NUM_SAFE_FILE_ACCESS	EXP, N05, -	FBSI
-	Number of SPL file accesses	DWORD	PowerOn
-			
-	-	0	ReadOnly M

**Description:** Display data: SPL file /\_N\_CST\_DIR/\_N\_SAFE\_SPF has been accessed n-times in a protected state. This MD is intended for service purposes only. The MD can only take the values 0 and 1. The value cannot be changed.

10094	SAFE_ALARM_SUPPRESS_LEVEL	EXP, N06, N05, -	FBSI
-	Alarm suppress level	BYTE	PowerOn
-			
-	-	2	0 113 7/2 M

**Description:** Affects the display of safety alarms. The monitoring channels NCK and drive or NCK and PLC display alarms with the same meaning in several situations. To reduce the volume of the alarm display, this MD is set to define whether safety alarms with the same meaning are to be hidden or not. This does not affect the dual-channel stop response.

0 = Dual-channel triggered alarms are displayed in full

- Dual-channel display of all axial safety alarms
- Alarm 27001, error code 0 is displayed
- Alarms 27090, 27091, 27092, 27093, and 27095 are dual-channel and are displayed several times.

1 = Alarms with the same meaning are only displayed once.

The following alarms can be affected by this:

27010 = C01707  
 27011 = C01714  
 27012 = C01715  
 27013 = C01706  
 27020 = C01710  
 27021 = C01709  
 27022 = C01708  
 27023 = C01701  
 27024 = C01700

In the case of these alarms, only one of the alarms listed (270xx or C01xxx) is triggered.

The alarm of the monitoring channel that later triggers the alarm with the same meaning is no longer displayed.

Furthermore, alarm 27001 with error code 0 is suppressed. This alarm is triggered as a result of drive alarm C01711. In this case, drive parameters

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r9710[0,1], r9711[0,1], r9735[0,1], r9736[0,1], r9737[0,1], r9738[0,1], r9739[0,1] provide further information about the cause of the error.

2 = Default setting

In addition to the functionality with MD value = 1, the alarms from the SPL processing

(27090, 27091, 27092, 27093, and 27095) are displayed in one channel and only once. This

also applies to the alarms for PROFIsafe communications (27250 and following).

3 = Axial alarms 27000 and A01797 are replaced by alarm message 27100 for all axes /

drives. Alarm 27040 is replaced by alarm 27140 for all axes/ drives.

12 = The alarms are prioritized beyond the functionality with MD value = 2. Obvious subsequent alarms are no longer displayed or are automatically deleted from the display.

The following alarms can be affected by this:

27001, 27004, 27020, 27021, 27022, 27023, 27024, 27091,

27101, 27102, 27103, 27104, 27105, 27106, 27107

13 = The alarms are prioritized beyond the functionality with MD value = 3 (as with MD value 12).

1xx = If SPL commissioning mode is active (\$MN\_PREVENT\_SYNACT\_LOCK[0,1] = 0), the global group alarm 27135 will be displayed instead of the axial checksum alarms 27032, 27035, and 27060.

This machine data must be set to 0 to create an acceptance log, so that the triggering of all alarms can be logged.

10095	SAFE_MODE_MASK	EXP, N06, -	FBSI
-	'Safety Integrated' operating modes	DWORD	PowerOn
-			
-	-	0	0x00000000 0x00000006 7/2 M

**Description:** Bit 1 = 0: The "Modular PROFIsafe I/O connection" function is not active.  
 Bit 1 = 1: The "Modulare PROFIsafe I/O connection" function is active.  
 Bit 2 = 0: The reduced language scope for SAFE.SPF is only activated during ramp-up in the case of automatic startup (\$MC\_PROG\_EVENT\_MASK bit 5)  
 Bit 2 = 1: The reduced language scope for SAFE.SPF is also activated if the CALL command is used to call SAFE.SPF.

10096	SAFE_DIAGNOSIS_MASK	EXP, N06, N05, -	FBSI
-	'Safety Integrated' diagnostics functions	DWORD	NEW CONF
-			
-	-	1	0 0x000F 7/2 M

**Description:** Bit 0 = 0:  
 SGE differences between NCK and drive monitoring channels are not displayed  
 Bit 0 = 1:  
 Default setting: SGE differences between NCK and drive monitoring channels are displayed. Differences between the following SGEs are displayed (the bit numbers stated refer to the axial map of the SGEs; they correspond to the assignment of the axial VDI interface:  
 Bit 0: DB31, ... DBX22.0 (SBH/SG deselection)

Bit 1: DB31, ... DBX22.1 (SBH deselection)  
 Bit 3: DB31, ... DBX22.3 (SG selection: Bit 0)  
 Bit 4: DB31, ... DBX22.4 (SG selection: bit 1)  
 Bit 12: DB31, ... DBX23.4 (activate SE 2)  
 Bit 28: DB31, ... DBX33.4 (SG correction: bit 0)  
 Bit 29: DB31, ... DBX33.5 (SG correction: bit 1)  
 Bit 30: DB31, ... DBX33.6 (SG correction: bit 2)  
 Bit 31: DB31, ... DBX33.7 (SG correction: bit 3)

The differences are displayed by message alarm 27004.

Bit 1 = 0: Default setting: Display of a non-executed SPL start after expiry of the timer defined in MD SAFE\_SPL\_START\_TIMEOUT

with alarm 27097

Bit 1 = 1: Display of alarm 27097 is suppressed

Alarm 27097 indicates that despite the SPL configuration an SPL start has not been executed

after expiration of the time specified in MD SAFE\_SPL\_START\_TIMEOUT. Alarm description 27097 explains why.

Bit 2 = 0: Default setting: Communication errors are displayed with SFC error codes in alarm 27354

Bit 2 = 1: Display of alarm 27354 is suppressed

Bit 3 = 0: Default setting: alarm 27038 is displayed, if an unknown bit is set in drive parameter r474.

Bit 3 = 1: Display of alarm 27038 is suppressed

10097	SAFE_SPL_STOP_MODE	N01, N06, -	FBSI
-	Stop reaction for SPL errors	BYTE	PowerOn
-			
-	-	3	3
-	-	4	7/2
-	-		M

**Description:** Selection of the stop response when the NCK / PLC SPL detects errors during a cross-check.

3: Stop D  
 4: Stop E

Entering the value 4 in this MD (Stop E) leads to alarm 27033, "Axis %1 Parameterization of MD10097 \$MN\_SAFE\_SPL\_STOP\_MODE is invalid" unless external Stop E is enabled in all axes with SI function enable (MD36901 \$MA\_SAFE\_FUNCTION\_ENABLE is not equal to 0).

As a remedy, either Stop D must be parameterized, or bits 4 and 6 must be set in MD36901 \$MA\_SAFE\_FUNCTION\_ENABLE for all affected axes.

If this MD is set to 4, NC/PLC interface signal DB18 DBX36.1 (Stop E) must also be set to 1 to make this parameterization known to the PLC. A different parameterization leads to alarm 27909, "Error in NCK / PLC data cross check"

10098	PROFISAFE_IPO_TIME_RATIO	N01, N10, -	FBSI
-	Factor for PROFIsafe communication	DWORD	PowerOn
SFCO			
-	-	1	1
-	-	25	7/1
-	-		M

**Description:** Ratio between PROFIsafe communication and interpolator cycle. The actual PROFIsafe communication cycle is the product of this data and IPO\_CYCLE\_TIME, and is displayed in MD INFO\_PROFISAFE\_CYCLE\_TIME. The OB40 on the PLC side is triggered from the NCK side in this cycle to run the communication between F master and F slaves.

The PROFIsafe communication must not exceed 25 ms.

10099	INFO_PROFISAFE_CYCLE_TIME		N01, N10, N05,	FBSI		
s	PROFIsafe communication cycle time		DOUBLE	PowerOn		
-						
-	-	0.0	-	-	ReadOnly	M

**Description:** Displays the maximum time frame within which the OB40 is initiated for PROFIsafe communication.  
 The value is derived from the interpolator cycle and MD \$MN\_PROFISAFE\_IPO\_TIME\_RATIO.  
 If the selected communication cycle is exceeded in cyclic operation, then this is also displayed here.  
 In the case of a parameterization error (communication cycle exceeds the maximum value of 25.0 ms) the maximum value that can be set is displayed.  
 It involves pure display data. The value cannot be changed.

10100	PLC_CYCLIC_TIMEOUT		EXP, N01, N06	P3		
s	Maximum PLC cycle time		DOUBLE	PowerOn		
-						
-	-	0.1	-	-	7/2	M

**Description:** Cyclical PLC monitoring time.  
 This machine data specifies the maximum monitoring time after which the PLC must have incremented its sign of life. Incrementing takes place within the interpolation cycles.

10110	PLC_CYCLE_TIME_AVERAGE		N01, N07	B1		
s	Average PLC acknowledgement time		DOUBLE	PowerOn		
-						
-	-	0.05	-	-	7/2	M

**Description:** Time information for the CNC about the OB1 cycle time. During this cycle time, it is guaranteed that the auxiliary functions will be acknowledged.  
 By means of the MD, the status transitions:  
 "channel operates/ channel in RESET/ channel failure --> channel interrupted" can be delayed for the PLC in case of a RESET. With the output "channel interrupted", the NCK waits at least the time indicated in the MD + 1 IPO cycle.  
 With the time indication, the path feedrate during path control operation in case of an auxiliary function output during motion is controlled in a way to ensure that the minimum travel time corresponds to the time information. This ensures a uniform velocity behavior which is not disturbed by waiting for the PLC acknowledgement. The internal incrementation is performed in the interpolation cycle.  
 For the auxiliary function output in the continuous-path mode, the MD is also relevant for the FM357 and 802/802s systems. With SW 5.1 and higher, the other systems are parameterized directly via the PLC.

10120	PLC_RUNNINGUP_TIMEOUT	EXP, N01, N06	H2
s	Monitoring time for PLC power up	DOUBLE	PowerOn
-			
-	-	50.0	-
-	-	-	-
-	-	-	7/2
-	-	-	M

**Description:**

Power up PLC monitoring time

This machine data specifies the maximum monitoring time within which the PLC must report its first sign of life to the NCK. During the power up routine, the monitoring function has the task of verifying that the PLC has properly assumed cyclic operation. If the PLC does not issue a message within this time, the NC issues an alarm message when it powers up; NC-READY is not set. The incrementing takes place within the interpolation cycles.

10130	TIME_LIMIT_NETTO_COM_TASK	EXP, N01	OEM
s	Runtime limitation of communication to HMI	DOUBLE	PowerOn
-			
-	-	0.05	0.01
-	-	1.000	0/0
-	-	-	M

**Description:**

Net runtime limit of the communication sub-task

Preprocessing and the communications task share the time that is not used up by the cyclical tasks. Of this remaining time, communication uses the set time at the expense of preprocessing time; in other words, the net block cycle time is increased by the set value. This machine data serves the purpose of optimizing the block cycle time with the function "Reloading part programs block-by-block".

10131	SUPPRESS_SCREEN_REFRESH	EXP	A2
-	Screen refresh response under overload	BYTE	PowerOn
-			
-	-	0	0
-	-	2	7/2
-	-	-	M

**Description:**

There are part programs in which the main run (HL) has to wait until the pre-processing (VL) makes new blocks available.

The pre-processing and display update compete for NC computing time. The MD defines how the NC is to respond when the pre-processing is too slow.

0: When the VL of a channel is too slow, the updating of the display is suppressed in all channels.

1: When the VL of a channel is too slow, the updating of the display is suppressed only in the time-critical channels in order to gain time for the pre-processing.

2: The updating of the display is never suppressed.

10132	MMC_CMD_TIMEOUT	EXP, N01, N06	PA,M4
s	Monitoring time for HMI command in the part program	DOUBLE	PowerOn
-			
-	-	3.0	0.0
-	-	100.0	7/2
-	-	-	M

**Description:**

Monitoring time in seconds until the HMI acknowledges a command from the part program.

The following times are monitored:

- In the case of an HMI command without acknowledgement: time from triggering the transfer of the command string until successful transmission to the HMI

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- In the case of an HMI command with synchronous and asynchronous acknowledgement: time from triggering the transfer of the command strings until receipt of the acceptance acknowledgement from the HMI
- For EXTCALL command and execution from external drives: time between the transmission triggering of the command string and the successful sending to the HMI.

10134	MM_NUM_MMC_UNITS	EXP, N01, N02	B3
-	Possible number of simultaneous HMI communication partners	DWORD	PowerOn
-			
-	-	6	1
-		10	2/2
			M

**Description:** Possible number of simultaneous HMI communication partners with which the NCU can exchange data.

This value affects then number of communication orders that the NCK can manage. The higher the value, the more HMIs that can be simultaneously connected to the NCK without leading to communication problems.

DRAM is made available for this function in the NCU corresponding to the input in the machine data. The inputs for changing the memory areas have to be taken into account.

The unit of MD10134 \$MN\_MM\_NUM\_MMC\_UNITS is a "resource unit".

A standard HMI needs 1 resource unit, an HMI100/103 needs 2. OEM variants may need more or less resources.

- If the value is set lower than would be needed for the number of connected HMIs, this is not inevitably problematical. Actions may not function sporadically during multiple, simultaneous, communication-intensive operations (e.g. loading a program): Alarm 5000 is displayed. The operation then has to be repeated.
- If the value is et higher, more dynamic memory is occupied than necessary. The value should be reduced appropriately if the memory is required for other purposes.

References: /FB/, S7, "Memory Configuration"

10136	DISPLAY_MODE_POSITION	N01	-
-	Display mode for actual position in the work	DWORD	Reset
-			
-	-	0	0
-		1	7/1
			M

**Description:** Defines how the position and the distance to go are displayed in the WCS.

0: Display as in software version 5 and earlier

1: At end of block, the actual value display is in principle the same as the programmed end point, irrespective of where the machine actually is (e.g. as a result of the tool radius compensation). The distance to go is the same as the actual distance to be traversed. This means that the displayed actual position has to be the same as the displayed end position minus the distance to go, irrespective of the actual machine position. If the block end points are changed by chamfers, radii, contour definitions, splines or SAR in comparison to the NC program, then these changes are reflected in the display as if they had been programmed. This does not apply to changes resulting from tool radius compensation or smoothing.



10156	TASK_SLEEP_TIME	EXP	-
-	Average time transfer per cycle	DWORD	Immediately
NBUP			
-	-	0	0
		10000	7/2
			M

**Description:**

Only relevant to simulation systems

In the simulation environment, a machining run designates the execution of the tasks Server, IPO and PREP, which are not interrupted

This machine data now specifies the average time which is transferred to the operating system of the simulation host system per machining run. The unit of the machine data is the microsecond.

As it is not usually possible to transfer times in the microsecond range in the operating system of the simulation host system, the times are calculated over multiple cycles, and then the default time set by the operating system (typically between 10 - 15 milliseconds) is transferred. Multiple cycles are thus executed without delay, and there is a correspondingly longer wait at a later point in time, so that on average, the time set in the MD is transferred. The value 0 deactivates the time transfer.

E.g.: MD10156 \$MN\_TASK\_SLEEP\_TIME is set to the value 50 (microseconds), and the minimum given time specified by the operating system is 10 milliseconds (= 10000 microseconds), then there will be a delay of 10 milliseconds every 200 cycles (10000/50).

10160	PREP_COM_TASK_CYCLE_RATIO	EXP, N01	ECO
-	Factor for communication with HMI	DWORD	PowerOn
-			
-	-	3	1
		50	7/1
			M

**Description:**

This machine data specifies the division ratio used for activating the communication task in the non-cyclic time level. This allows the time share of preparation in the non-cyclic time level to be increased, which reduces block cycle times. External communication (file transfer) is slowed down in particular during program execution (block reload).

10161	COM_CONFIGURATION	EXP, N01	-
-	Configuration of communication	DWORD	PowerOn
-			
-	8	5, 5, 18, 1, 16, 8, 18, 18	-
			0/0
			M

**Description:**

Values 1-3 define the maximum number of PDUs that are accepted in one pass.

Value 0 stands for infinite, i.e. all present jobs are executed immediately. These three values become active after PowerOn.

1st value: max. number of variable job PDUs executed per pass.

2nd value: max. number of PI job PDUs executed per pass.

3rd value: max. number of domain job PDUs executed per pass.

Values 4-8 define the credit assignment for optimized download.

4th value: number of PDUs that are assigned as credit at the begin of acknowledgement under opt. domain service (here, the file header and therefore the file on NCK are still unknown)

5th value: number of PDUs that will be requested by default under opt. domain service, if there is no explicit memory limit for the file

6th value: min. number of PDUs that are requested with the data request message (so that data request messages are not displayed again and again)

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7th value: max. number of PDUs that are requested with the data request message (max. value is 255, as the log cannot handle more than that!)

8th value: max. number of PDUs that may be present in total

10185	NCK_PCOS_TIME_RATIO			EXP, N01	-	
-	Processing time share NCK			DWORD	PowerOn	
-						
-	-	90	90	95	7/2	M

**Description:** This machine data defines the maximum proportion of CPU time given to the NC kernel in the entire system. The division specified by the user is implemented as well as possible.

When implementing the specification, the system takes into account limiting values for the absolute proportion of CPU time that must not be exceeded or undershot.

Adaptations are made without generating an alarm.

10190	TOOL_CHANGE_TIME			N01	BA	
-	Tool changing time for simulation			DOUBLE	PowerOn	
-						
-	-	0.	-	-	7/2	M

**Description:** This data defines how much time is estimated for a tool change (only relevant for a simulation).

10192	GEAR_CHANGE_WAIT_TIME			N01	S1	
s	Gear stage change waiting time			DOUBLE	PowerOn	
-						
-	-	10.0	0.0	1.0e5	7/2	M

**Description:** External events which trigger reorganization, wait for the end of a gear stage change. GEAR\_CHANGE\_WAIT\_TIME now determines the waiting time for the gear stage change. Time unit in seconds.

When this time expires without the gear stage change having been terminated, the NCK reacts with an alarm.

Among others, the following events will cause reorganization:

- User ASUB
- Mode change
- Delete distance-to-go
- Axis replacement
- Activate user data

10200	INT_INCR_PER_MM			N01	G2,K3	
-	Calculation resolution for linear positions			DOUBLE	PowerOn	
LINK						
-	-	1000.	1.0	1.0e9	7/2	M

**Description:** This MD defines the number of internal increments per millimeter.

The accuracy of the input of linear positions is limited to the calculation accuracy by rounding the product of the programmed value and the calculation accuracy to an integer.

In order to keep the executed rounding easily understandable it is useful to use powers of 10 for the calculation accuracy.

10210	INT_INCR_PER_DEG		N01	G2,K3,R2		
-	Calculation resolution for angular positions		DOUBLE	PowerOn		
LINK						
-	-	1000.0	1.0	1.0e9	7/2	M

**Description:** This MD defines the number of internal increments per degree.  
The accuracy of the input of angular positions is limited to the calculation accuracy by rounding the product of the programmed value and the calculation accuracy to an integer.  
In order to keep the executed rounding easily understandable it is useful to use powers of 10 for the calculation accuracy.

10220	SCALING_USER_DEF_MASK		EXP, N01	G2		
-	Activation of scaling factors		DWORD	PowerOn		
SCAL						
-	-	0x200	0	0x3FFF	7/2	M

**Description:** Bit mask for selecting the base values for the data (e.g. machine and setting data) that have a physical unit, they are interpreted in the default units shown below according to the basic system (metric/inch). If other input/output units are to be selected for individual physical units then these are activated with the scale factors associated with this machine data (entered in MD10230 \$MN\_SCALING\_FACTORS\_USER\_DEF[n]).  
This does not affect the programming of geometry and feed values.  
Bit set:  
Data of the assigned physical variable (see list) are scaled to the unit defined by MD10230 \$MN\_SCALING\_FACTORS\_USER\_DEF[n].  
Bit not set:  
Data of the assigned physical variable are scaled to the default unit shown below.

Assigned physical variable	Default units for:	
	MD10240 \$MN_SCALING_SYSTEM_IS_METRIC 1 = METRIC	0 = INCH
Bit no. (Stated as hex value)		
0 Linear position	1 mm	1 inch
1 Angular position	1 degree	1 degree
2 Linear velocity	1 mm/min	1 inch/min
3 Angular speed	1 rpm	1 rpm
4 Linear acceleration	1 m/s <sup>2</sup>	1 inch/s <sup>2</sup>
5 Angular acceleration	1 rev/s <sup>2</sup>	1 rev/s <sup>2</sup>
6 Linear jerk	1 m/s <sup>3</sup>	1 inch/s <sup>3</sup>
7 Angular jerk	1 rev/s <sup>3</sup>	1 rev/s <sup>3</sup>
8 Time	1 s	1 s
9 Position-controller servo gain	1/s	1/s
10 Revolutional feedrate	1 mm/rev	1 mm/rev
11 Compensation value linear pos.	1 mm	1 mm
12 Compensation value angular pos.	1 degree	1 degree
13 Cutting rate	1 m/min	1 feet/min

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Example:

SCALING\_USER\_DEF\_MASK =?H3?; (Bit nos. 0 and 1 as hex values)

The scale factor defined in the associated MD10230

\$MN\_SCALING\_FACTORS\_USER\_DEF[n] is activated for linear and angular positions.

If this machine data is changed, a power on is required as otherwise the associated machine data that have physical units would be incorrectly scaled.

Proceed as follows:

- MD changed manually

First start up and then enter the associated machine data with physical units.

- MD changed via machine data file

First start up and then reload the machine data file so that the new physical units are taken into account.

If the machine data are altered, alarm 4070 "Scaling machine data altered" is output.

Application example: Input/output of linear velocities is to be in cm/min:

SCALING\_USER\_DEF\_MASK = 0x4 (bit no. 2 as hex value)

SCALING\_FACTORS\_USER\_DEF[2] = 0.1666666667 (10/60)

[Related to:

MD10230 \$MN\_SCALING\_FACTORS\_USER\_DEF[n] (scaling factors of the physical variables)

10230	SCALING_FACTORS_USER_DEF			EXP, N01	G2	
-	Scaling factors of physical variables			DOUBLE	PowerOn	
	[0]	Linear position 1 mm				
	[1]	Angular position 1 degree				
	[2]	Linear velocity 1 mm/s				
	[3]	Angular speed 1 degree/s				
	[4]	Linear acceleration 1 mm/s <sup>2</sup>				
	[5]	Angular acceleration 1 degree/s <sup>2</sup>				
	[6]	Linear jerk 1 mm/s <sup>3</sup>				
	[7]	Angular jerk 1 degree/s <sup>3</sup>				
	[8]	Time 1 s				
	[9]	Position controller loop gain 1/s				
	[10]	Revolutional feedrate 1 mm/degree				
	[11]	Compensation value linear position 1 mm				
	[12]	Compensation value angular position 1 degree				
	[13]	Cutting speed 1 mm/s				
SCAL						
-	15	1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0...	1e-9	-	7/2	M

**Description:**

The scaling factor of a physical variable that has a unit other than the default unit setting (set bit in MD10220 \$MN\_SCALING\_USER\_DEF\_MASK) is entered in this MD. The factor must refer to the unit used internally for the physical variable in question.

The scaling factor is assigned to the physical variable using the index [0...12]. If this machine data is changed, a startup is required because otherwise the associated machine data that have physical units would be incorrectly scaled.

Proceed as follows:

- MD changed manually

First start up and then enter the associated machine data with physical units.

- MD changed via machine data file

First start up and then reload the machine data file so that the new physical units are taken into account.

If the machine data are altered, alarm 4070 "Scaling machine data altered" is output.

Application example(s):

Input/output of angular speeds is to be in new degree/min:

```
$MN_SCALING_USER_DEF_MASK = 'H8'; (bit no. 3 as hex value)
```

```
$MN_SCALING_FACTORS_USER_DEF[3] = 0.01851852; (400/360/60)
```

[3]: Index for angular speed.

Related to:

MD10220 \$MN\_SCALING\_USER\_DEF\_MASK (activation of scaling factors).

10240	SCALING_SYSTEM_IS_METRIC	N01	G2,K3,A3,S1
-	Basic system metric	BOOLEAN	PowerOn
SCAL			
-	-	TRUE	-
			7/2 M

**Description:** The MD defines the basic system used by the control for scaling length-dependent physical variables for data input/output.

All corresponding data are stored internally in the basic units of 1 mm, 1 degree and 1 sec.

In the case of access from the interpreter ( part program and download ), from the operator panel ( variable service ) or through external communication, scaling takes place in the following units:

MD10240 \$MN\_SCALING\_SYSTEM\_IS\_METRIC = 1: scaled in:

mm, mm/min, m/s<sup>2</sup>, m/s<sup>3</sup>, mm/rev.

MD10240 \$MN\_SCALING\_SYSTEM\_IS\_METRIC = 0: scaled in:

inch, inch/min, inch/s<sup>2</sup>, inch/s<sup>3</sup>, inch/rev.

The selection of the basic system also defines the interpretation of the programmed F value for linear axes:

	metric	inch
G94	mm/min	inch/min
G95	mm/rev.	inch/rev.

If this machine data is changed, a startup is required because otherwise the associated machine data that have physical units would be incorrectly scaled.

Proceed as follows:

- MD changed manually

First start up and then enter the associated machine data with physical units.

- MD changed via machine data file

First start up and then reload the machine data file so that the new physical units are taken into account.

If the machine data are altered, alarm 4070 "Scaling machine data altered" is output.

Application example(s):

Setup is in the metric system and then changed over to the inch system.

1.3 NC machine data

Special cases, errors:

The factor used for changing from 1 mm to 1 inch can be changed with MD10250 \$MN\_SCALING\_VALUE\_INCH.

10250	SCALING_VALUE_INCH	EXP	G2
-	Conversion factor for INCH	DOUBLE	PowerOn
SCAL			
-	-	25.4	1e-9
-	-	0/0	M

**Description:**

The MD contains the conversion factor from metric to inch. This factor is only active with the selection of the non-metric basic system (MD10240 \$MN\_SCALING\_SYSTEM\_IS\_METRIC = 0) in the following conversions:

- Programmed F values for linear axes
- Input/output of lengths and length-dependent data (e.g. when uploading machine data, work offsets)

Programmed geometry axis positions are converted by this factor when the measuring system programmed with G70/G71 is different from the selected basic system (SCAL-ING\_ SYSTEM\_IS\_METRIC).

Programmed synchronous axis positions are converted by the corresponding axial factors (MD31200 \$MA\_SCALING\_FAKTOR\_G70\_G71) when the measuring system programmed with G70/G71 is different from the selected basic system (MD10240 \$MN\_SCALING\_SYSTEM\_IS\_METRIC). Settings other than the default 25.4 should only be made in exceptional cases as the correct display of the unit on the operator interface depends on this value.

If this machine data is changed, a startup is required because otherwise the associated machine data that have physical units would be incorrectly scaled. Proceed as follows:

- MD changed manually  
--> Start up and then enter the associated machine data with physical units.
- MD changed via machine data file  
--> Perform power on and then reload the machine data file so that the new physical units are taken into account.

If the machine data are altered, alarm 4070 "Scaling machine data altered" is output.

Application example(s):

This conversion factor is used if a changeover is made from metric to inch or a customized measuring system. Then all the input machine data, among other things, are converted by this factor. The converted values are then given at the next read out and on the operator panel.

Related to:

MD10240 \$MN\_SCALING\_SYSTEM\_IS\_METRIC

10260	CONVERT_SCALING_SYSTEM	EXP	-
-	Enable basic system conversion	BOOLEAN	PowerOn
LINK			
-	-	FALSE	-
-	-	1/1	M

**Description:**

Determines the handling of MD10240 \$MN\_SCALING\_SYSTEM\_IS\_METRIC.

- 0: Inch/metric behavior conforms to SW1-SW4
- 1: Inch/metric behavior from SW5

Inch/metric functionality of SW5:

1. Switch over the systems of units with HMI softkey
2. New G codes G700/G710

3. Data backup with system of unit recognition INCH/METRIC
4. Automatic data conversion on change of system of units
  - All zero point offsets
  - Compensation data (EEC, QEC)
  - Tool offsets
  - etc.

The change from MD10260 \$MN\_CONVERT\_SCALING\_SYSTEM leads to alarm 4070!  
 This alarm is designed to indicate that data which remain active after a POWERON are not subjected to automatic conversion from SW1-SW4 and SW5 for-mats.

10270	POS_TAB_SCALING_SYSTEM			N01, N09	T1, N3, G2	
-	System of units of position tables			BYTE	Reset	
-						
-	-	0	0	1	7/2	M

**Description:** Defines the measuring system for the positional data for the following machine data

MD10910 \$MN\_INDEX\_AX\_POS\_TAB\_1  
 MD10930 \$MN\_INDEX\_AX\_POS\_TAB\_2  
 SD41500 \$SN\_SW\_CAM\_MINUS\_POS\_TAB\_1  
 SD41501 \$SN\_SW\_CAM\_PLUS\_POS\_TAB\_1  
 SD41502 \$SN\_SW\_CAM\_MINUS\_POS\_TAB\_2  
 SD41503 \$SN\_SW\_CAM\_PLUS\_POS\_TAB\_2  
 SD41504 \$SN\_SW\_CAM\_MINUS\_POS\_TAB\_3  
 SD41505 \$SN\_SW\_CAM\_PLUS\_POS\_TAB\_3  
 SD41506 \$SN\_SW\_CAM\_MINUS\_POS\_TAB\_4  
 SD41507 \$SN\_SW\_CAM\_PLUS\_POS\_TAB\_4

0: metric  
 1: inch

This machine data is only evaluated for MD10260 \$MN\_CONVERT\_SCALING\_SYSTEM = 1.

Related to:

MD10260 \$MN\_CONVERT\_SCALING\_SYSTEM  
 MD10910 \$MN\_INDEX\_AX\_POS\_TAB\_1  
 MD10930 \$MN\_INDEX\_AX\_POS\_TAB\_2  
 SD41500 \$SN\_SW\_CAM\_MINUS\_POS\_TAB\_1  
 SD41501 \$SN\_SW\_CAM\_PLUS\_POS\_TAB\_1  
 SD41502 \$SN\_SW\_CAM\_MINUS\_POS\_TAB\_2  
 SD41503 \$SN\_SW\_CAM\_PLUS\_POS\_TAB\_2  
 SD41504 \$SN\_SW\_CAM\_MINUS\_POS\_TAB\_3  
 SD41505 \$SN\_SW\_CAM\_PLUS\_POS\_TAB\_3  
 SD41506 \$SN\_SW\_CAM\_MINUS\_POS\_TAB\_4  
 SD41507 \$SN\_SW\_CAM\_PLUS\_POS\_TAB\_4

10280	PROG_FUNCTION_MASK	EXP, N01	K1
-	Bit screen form to parameterize various part program commands	DWORD	PowerOn
-			
-	-	0x0	0
-		0x0F	7/2
			M

**Description:** Bit mask for parameterizing various sub-program commands  
 Bit Hexadec. Meaning with bit set value  
 0: 0x1 Comparison commands ">" and "<" are processed as for SW 6.3 and earlier:  
 Sub-program data of the type REAL are mapped internally in the IEEE 64 bit format. This mode maps decimal numbers inaccurately if this format's 52-bit wide mantissa is inadequate to map the number in binary notation. To solve this problem, all comparison commands ( ==, <>, >=, <=, > and < ) are checked for relative equality of 1E-12.  
 This procedure is deactivated for greater than (>) and less than (<) comparisons by setting bit 0. (Compatibility setting for software releases earlier than SW 6.4)  
 1: 0x2 Programming the channel names from machine data MD20000 \$MC\_CHAN\_NAME  
 By setting bit 1, the channel name stored in machine data MD20000 \$MC\_CHAN\_NAME can be programmed in the part program. The channel name can thus also be programmed instead of a numerical value for the channel number in programming coordination commands such as (START(), INIT(), WAIT() etc.  
 2: 0x4 reserved  
 3: 0x8 Convert illegal ASCII characters into blanks  
 By setting bit 3, the previous behavior when interpreting a part program block is activated. This means that all invalid ASCII characters in a part program block are internally treated as blank.

10284	DISPLAY_FUNCTION_MASK	EXP, N01	-
-	Behavior of various display variables	DWORD	PowerOn
-			
-	-	0x0	-
-		-	7/2
			M

**Description:** Bit mask for parameterizing various display variables:  
 BitNo. Hexadec. Meaning with bit set value  
 Bit0: 0x1  
 Parameters are assigned to the OPI variable lastBlockNoStr in the SPARP and SPARPP blocks.  
 Bit1: 0x2  
 Concerns the OPI variable cmdSpeed in the SPARPP block. If the bit is set, the variable returns the programmed speed even if the spindle is at a standstill or in another mode (positioning mode, axis mode).  
 Bit2: 0x4  
 Concerns the OPI variable cmdSpeed in the SPARPP block. (reserved for constant cutting speed)  
 Bit8: 0x100  
 Servotrace manages larger numerical values internally. Overruns in data format are avoided. The accuracy may be reduced with large numerical values.



10285	TASK_TIME_AVERAGE_CONFIG			EXP, N01	-	
-	Period for task runtime mean value generation			DOUBLE	PowerOn	
-						
-	-	1.0	0	86400	7/2	M

**Description:** Period in seconds for which the respective mean value of the task runtimes is generated.

For the value 0, the current actual value is provided as mean value.

This mean value can be read via the OPI variable aveCycleTimeNet.

10290	CC_TDA_PARAM_UNIT			N09	G2	
-	Physical units of tool data for compile cycles			DWORD	PowerOn	
-						
-	10	0, 0, 0, 0, 0, 0, 0, 0...	0	9	2/2	M

**Description:** Physical units for the user-defined tool-specific data:

0 ;No unit

1 ;Linear position [ mm ; inch ]

2 ;Angular position [ degree ; degree ]

3 ;Linear velocity [ mm/min ; inch/min ]

4 ;Angular speed [ rpm ; rpm ]

5 ;Linear acceleration [ m/s<sup>2</sup> ; inch/s<sup>2</sup> ]

6 ;Angular acceleration. [ rev/s<sup>2</sup> ; rev/s<sup>2</sup> ]

7 ;Linear jerk [ m/s<sup>3</sup> ; inch/s<sup>3</sup> ]

8 ;Angular jerk [ rev/s<sup>3</sup> ; rev/s<sup>3</sup> ]

9 ;Revolutional feedrate [ mm/rev ; inch/rev ]

Only available if bit 2 (0x4) is set in MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK

10291	CCS_TDA_PARAM_UNIT			N09	-	
-	physical units of SIEMENS-OEM tool data			DWORD	PowerOn	
-						
-	10	0, 0, 0, 0, 0, 0, 0, 0...	0	9	2/2	M

**Description:** Physical units for application-specific tool-specific data:

0: No unit

1: Linear position [ mm; inch ]

2: Angular position [ degree ; degree ]

3: Linear velocity [ mm/min ; inch/min ]

4: Angular speed [ rpm ; rpm ]

5: Linear acceleration [ m/s<sup>2</sup> ; inch/s<sup>2</sup> ]

6: Angular acceleration [ rev/s<sup>2</sup> ; rev/s<sup>2</sup> ]

7: Linear jerk [ m/s<sup>3</sup> ; inch/s<sup>3</sup> ]

8: Angular jerk [ rev/s<sup>3</sup> ; rev/s<sup>3</sup> ]

9: Feedrate per revolution [ mm/rev; inch/rev]

Only available if Bit 2 (0x4) is set in MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK.

Related to:

MD18204 \$MN\_MM\_NUM\_CCS\_TDA\_PARAM

1.3 NC machine data

10292	CC_TOA_PARAM_UNIT			N09	G2	
-	Physical units of cutting edge data for compile cycles			DWORD	PowerOn	
-						
-	10	0, 0, 0, 0, 0, 0, 0, 0...	0	9	2/2	M

**Description:** Physical units for the user-defined cutting edge data:

- 0 ;No unit
- 1 ;Linear position [ mm ; inch ]
- 2 ;Angular position [ degree ; degree ]
- 3 ;Linear velocity [ mm/min ; inch/min ]
- 4 ;Angular speed [ rpm ; rpm ]
- 5 ;Linear acceleration [ m/s<sup>2</sup> ; inch/s<sup>2</sup> ]
- 6 ;Angular acceleration. [ rev/s<sup>2</sup> ; rev/s<sup>2</sup> ]
- 7 ;Linear jerk [ m/s<sup>3</sup> ; inch/s<sup>3</sup> ]
- 8 ;Angular jerk [ rev/s<sup>3</sup> ; rev/s<sup>3</sup> ]
- 9 ;Revolutional feedrate [ mm/rev ; inch/rev ]

Only available if bit 2 (0x4) is set in MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK

10293	CCS_TOA_PARAM_UNIT			N09	-	
-	Physical units of SIEMENS-OEM cutting edge data			DWORD	PowerOn	
-						
-	10	0, 0, 0, 0, 0, 0, 0, 0...	0	9	2/2	M

**Description:** Physical units for application-specific cutting data:

- 0 : No unit
- 1 : Linear position [ mm ; inch ]
- 2 : Angular position [ degree ; degree ]
- 3 : Linear velocity [ mm/min ; inch/min ]
- 4 : Angular speed [ rpm ; rpm ]
- 5 : Linear acceleration [ m/s<sup>2</sup> ; inch/s<sup>2</sup> ]
- 6 : Angular acceleration [ rev/s<sup>2</sup> ; rev/s<sup>2</sup> ]
- 7 : Linear jerk [ m/s<sup>3</sup> ; inch/s<sup>3</sup> ]
- 8 : Angular jerk [ rev/s<sup>3</sup> ; rev/s<sup>3</sup> ]
- 9 : Feedrate per revolution [ mm/rev; inch/rev]

Only available if Bit 2 (0x4) is set in MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK.  
 Related to:  
 MD18206 \$MN\_MM\_NUM\_CCS\_TOA\_PARAM

10300	FASTIO_ANA_NUM_INPUTS			N10	A4,TE1	
-	Number of active analog NCK inputs			BYTE	PowerOn	
-						
-	-	0	0	8	7/2	M

**Description:** This machine data defines the number of usable analog NCK inputs on the control.

Only these analog NCK inputs can be addressed by the NC part program or assigned by NC functions.

If more analog NCK inputs are defined with the machine data than are available in the hardware of the control, the binary analog actual value is set to zero in the control for the inputs that do not exist in the hardware. The NCK value can be altered by the PLC.

Note:

CPU computing time on the interpolation level is required for processing the digital and analog NCK I/Os. The number of active NCK I/Os should therefore be limited to the demands of the machine so that the interpolation cycle time is not unnecessarily loaded.

10310	FASTIO_ANA_NUM_OUTPUTS			N10	A4	
-	Number of active analog NCK outputs			BYTE	PowerOn	
-						
-	-	0	0	8	7/2	M

**Description:** This machine data defines the number of usable analog NCK outputs on the control.

Only these analog NCK outputs can be addressed by the NC part program or assigned by NC functions.

If more analog NCK outputs are defined with the machine data than are available in the hardware of the control, no alarm is triggered. The analog values specified by the part program can be read by the PLC.

Note:

CPU computing time on the interpolation level is required for processing the digital and analog NCK I/Os. The number of active NCK I/Os should therefore be limited to the demands of the machine so that the interpolation cycle time is not unnecessarily loaded.

10320	FASTIO_ANA_INPUT_WEIGHT			N10	A4	
-	Weighting factor for analog NCK inputs			DWORD	PowerOn	
-						
-	8	10000, 10000, 10000, 10000, 10000, 10000...	1	10000000	7/2	M

**Description:** A weighting factor can be defined with this MD for each analog NCK input [n] to enable adaptation to the various analog-to-digital converters (depending on the I/O module).

The value to be entered in this machine data is the value that is to be read in the part program with the command  $x = \$A\_INA[n]$  if the associated analog input [n] is set to the maximum value or the value +32767 is defined for this input via the PLC interface.

The value read from the analog-to-digital converter or the PLC interface is multiplied by the factor  $(FASTIO\_ANA\_INPUT\_WEIGHT / 32767)$  before it can be read in the part program with the system variable  $\$A\_INA[n]$ .

Use of the weighting factor for "Analog NCK inputs without hardware": with a weighting factor of 32767, the values defined by the part program and the PLC are numerically identical (1:1 communication between part program and PLC). This is advantageous when the analog NCK inputs/outputs are used purely as PLC inputs/outputs without analog hardware.

Note:

The comparator threshold values SD41600  $\$SN\_COMPAR\_THRESHOLD\_1$  and SD41601  $\$SN\_COMPAR\_THRESHOLD\_2$  are also normalized to MD10320

$\$MN\_FASTIO\_ANA\_INPUT\_WEIGHT$  corresponding to their assignment to an analog input.

The CC access to analog values is not affected by FASTIO\_ANA\_INPUT\_WEIGHT.

Related to:

NC/PLC interface signal DB10, DBB148 - 163 (PLC setting value for analog NCK inputs)

10330	FASTIO_ANA_OUTPUT_WEIGHT			N10	A4	
-	Weighting factor for analog NCK outputs			DWORD	PowerOn	
-						
-	8	10000, 10000, 10000, 10000, 10000, 10000...	1	10000000	7/2	M

**Description:** A weighting factor can be defined with this MD for each analog NCK output [n] to enable adaptation to the various digital-to-analog converters (depending on the I/O module used).

[hw] = Index (0 to 7) for addressing the external analog outputs

The value x to be entered in this machine data is the value that is to effect the maximum set value of the associated analog output [n] when programming \$A\_OUTA[n] = x in the part program or is to generate the value +32767 in the PLC interface for this output.

Use of the weighting factor for "Analog NCK outputs without hardware": With a weighting factor of 32767, the values defined by the part program and the PLC are numerically identical (1:1 communication between part program and PLC). This is advantageous when the analog NCK outputs are used purely as PLC outputs without analog hardware.

Related to:

NC/PLC interface signal DB10, DBB170 - 185 (PLC setting value for analog NCK outputs)

NC/PLC interface signal DB10, DBB210 - 225 (Setpoint for analog NCK outputs)

10350	FASTIO_DIG_NUM_INPUTS			N10	A4,TE1	
-	Number of active digital NCK input bytes			BYTE	PowerOn	
-						
-	-	1	0	5	7/2	M

**Description:** The number of bytes of the digital NCK inputs that can be used on the control are defined in this machine data.

These digital NCK inputs can be read directly by the part program. Moreover, the signal state at the HW inputs can also be changed by the PLC.

If more digital NCK inputs are defined in the machine data than are available in the control hardware, a signal status of 0 is set in the control for the inputs that do not exist in the hardware. The NCK value can be altered by the PLC.

Related to:

NC/PLC interface signal DB10 DBB0 (Disable the digital NCK inputs 1-8);

NC/PLC interface signal DB10 DBB122,124,126,128 (Disable the external digital inputs 9-40)

NC/PLC interface signal DB10 DBB1 (PLC setting for digital NCK inputs 1-9)

NC/PLC interface signal DB10 DBB123,125,127,129 (PLC values for external digital inputs 9-40)

NC/PLC interface signal DB10, DBB60, DBB186 (Actual value for digital NCK inputs)

10360	FASTIO_DIG_NUM_OUTPUTS			N10	A4,TE8	
-	Number of active digital NCK output bytes			BYTE	PowerOn	
-						
-	-	0	0	5	7/2	M

**Description:**

The number of bytes for digital NCK outputs that can be used on the control are defined in this machine data.

These digital NCK outputs can be set directly by the part program. The PLC is able to

- set the digital outputs to "0" in a defined way with NC/PLC interface signal DB10, DBB4, DBB130 (Disable the digital NCK outputs).
- alter the NCK value with NC/PLC interface signal DB10, DBB5, DBB131 (Overwrite mask for digital NCK outputs).
- specify a PLC value with NC/PLC interface signal DB10, DBB7, DBB133 (Setting mask for digital NCK outputs).

If more digital NCK outputs are defined in the machine data than are available in the control hardware, no alarm is triggered. The signal states specified by the part program can be read by the PLC.

Special cases:

Digital NCK outputs 5 to 8 can be processed only by the PLC (no hardware outputs).

Related to:

NC/PLC interface signal DB10, DBB4, DBB130 (Disable the digital NCK outputs)

NC/PLC interface signal DB10, DBB5, DBB131 (Overwrite mask for digital NCK outputs)

NC/PLC interface signal DB10, DBB6, DBB132 (PLC setting value for digital NCK outputs)

NC/PLC interface signal DB10, DBB7, DBB133 (Setting mask for digital NCK outputs)

NC/PLC interface signal DB10, DBB64, DBB190 (Setpoint for digital NCK outputs)

10361	FASTIO_DIG_SHORT_CIRCUIT			N10	A4	
-	Short circuit of digital inputs and outputs			DWORD	PowerOn	
-						
-	10	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/2	M

**Description:**

Defined short circuits between digital output and input signals of the high-speed NCK I/Os are realized by linking the signals read in from the high-speed NCK I/Os or the PLC interface to defined output signals.

The output signals always remain unchanged by the link, the inputs that have to be taken into account internally arise from the read inputs and the link. If a plurality of output bits are specified for one input bit in overwrite mode, the last defined assignment in the list determines the result.

The definition of non-existent or non-activated inputs/outputs is ignored without an alarm.

Bits 0-7: Number of the input byte to be written ( 1 - 5 )

Bits 8-15: Bit number within the input byte ( 1 - 8 )

Link:

The type of link is selected by adding a hexadecimal number to the input bit number:

00 Overwrite input identically to output

1.3 NC machine data

A0 Input is AND-gated to the read input with the status of the stated output  
 B0 Input is OR-gated to the read input with the status of the stated output  
 Bits 16-23: Number of the output byte to be used ( 1 - 5 )  
 Bits 24-31: Bit number within the output byte ( 1 - 8 )  
 Example:  
 \$MN\_FASTIO\_DIG\_SHORT\_CIRCUIT[ 0 ] = 0x04010302  
 Input: 3rd bit of the 2nd byte  
 Output: 4th bit of the 1st byte ( = 4th onboard NCU output )  
 The input status is overwritten by the specified output  
 \$MN\_FASTIO\_DIG\_SHORT\_CIRCUIT[ 1 ] = 0x0705A201  
 Input: 2nd bit of the 1st byte ( = 2nd onboard NCU input )  
 Output: 7th bit of the 5th byte  
 The input status is AND-gated with the specified output  
 \$MN\_FASTIO\_DIG\_SHORT\_CIRCUIT[ 2 ] = 0x0103B502  
 Input: 5th bit of the 2nd byte  
 Output: 1st bit of the 3rd byte  
 The input status is OR-gated with the specified output  
 Related to:  
 MD10350 \$MN\_FASTIO\_DIG\_NUM\_INPUTS,  
 MD10360 \$MN\_FASTIO\_DIG\_NUM\_OUTPUTS.  
 References: /FB/, A4, "Digital and Analog NCK I/Os"

10362	HW_ASSIGN_ANA_FASTIN			N10	A4,TE1	
-	Hardware assignment of the fast analog NCK inputs			DWORD	PowerOn	
-						
-	8	0x01000000, 0x01000000, 0x01000000...	0x01000000	0x060003FF	7/2	M

**Description:** For PROFIBUS/PROFINET:  
 1st + 2nd byte indicate the logical start address of the I/O slot on the PROFIBUS/PROFINET:  
 Value 0000 means NO active slot  
 Values 0001..0100 are reserved for the PLC process image (the value of input slots can be read by the NCK without errors, but output slots are forbidden in this range, and cause an alarm on power up)  
 1st byte = LowByte of the logical start address  
 2nd byte = HighByte of the logical start address  
 3rd byte = 0 = without meaning  
 4th byte = 5 = segment no. for PROFIBUS/PROFINET  
 The individual bytes are explained in MD10366 \$MN\_HW\_ASSIGN\_DIG\_FASTIN.  
 [hw] = Index (0 to 7) for addressing the external analog inputs  
 Related to:  
 MD10366 \$MN\_HW\_ASSIGN\_DIG\_FASTIN  
 MD10368 \$MN\_HW\_ASSIGN\_DIG\_FASTOUT  
 MD10364 \$MN\_HW\_ASSIGN\_ANA\_FASTOUT

10364	HW_ASSIGN_ANA_FASTOUT		N10	A4,TE3		
-	Hardware assignment of external analog NCK outputs		DWORD	PowerOn		
-						
-	8	0x01000000, 0x01000000, 0x01000000...	0x01000000	0x060003FF	7/2	M

**Description:** For PROFIBUS/PROFINET:  
 1st + 2nd byte indicate the logical start address of the I/O slot on the PROFIBUS/PROFINET:  
 Value 0000 means NO active slot  
 Values 0001..0100 are reserved for the PLC process image (the value of input slots can be read by the NCK without errors; however, output slots are forbidden in this range, and cause an alarm on power up)  
 1st byte = LowByte of the logical start address  
 2nd byte = HighByte of the logical start address  
 3rd byte = 0 = without meaning  
 4th byte = 5 = segment no. for PROFIBUS/PROFINET  
 The individual bytes are explained in MD10366 \$MN\_HW\_ASSIGN\_DIG\_FASTIN.  
 Related to:  
 MD10366 \$MN\_HW\_ASSIGN\_DIG\_FASTIN  
 MD10368 \$MN\_HW\_ASSIGN\_DIG\_FASTOUT  
 MD10362 \$MN\_HW\_ASSIGN\_ANA\_FASTIN

10366	HW_ASSIGN_DIG_FASTIN		N10	A4,TE1		
-	Hardware assignment of external digital NCK inputs		DWORD	PowerOn		
-						
-	10	0x01000000, 0x01000000, 0x01000000...	0x01000000	0x060003FF	7/2	M

**Description:** For PROFIBUS/PROFINET:  
 1st + 2nd byte indicate the logical start address of the I/O slot on the PROFIBUS/PROFINET:  
 Value 0000 means NO active slot  
 Values 0001..0100 are reserved for the PLC process image (the value of input slots can be read by the NCK without errors; however, output slots are forbidden in this range, and cause an alarm on power up)  
 1st byte = LowByte of the logical start address  
 2nd byte = HighByte of the logical start address  
 3rd byte = 0 = without meaning  
 4th byte = 5 = segment no. for PROFIBUS/PROFINET  
 Module no.: 1 ... MD\_MAXNUM\_SIMO611D\_AXES:  
 Number of the logical slot in which the terminal block with the external I/Os is inserted. The logical slot is assigned to a physical slot by MD13010 \$MN\_DRIVE\_LOGIC\_NR, it is activated by MD13000 \$MN\_DRIVE\_IS\_ACTIVE.  
 1st + 2nd bytes give the logical start address of the I/O slot on the PROFIBUS  
 1st byte = low byte  
 2nd byte = high byte  
 Value 0000 means NO active slots

1.3 NC machine data

Values 0001..007F are reserved for the PLC (NCK can also read the value for input slots without error, but output slots are forbidden in this range and lead to an alarm during startup)

Values 0080..02FF are valid

Values > 02FF are invalid

Example:

HW\_ASSIGN\_DIGITAL\_FASTIN[3] = '05000302'

1st + 2nd byte: 0302 (hex) = logical start address 770 (decimal)

3rd byte: 00 = no significance

4th byte: 05 = ID for PROFIBUS/PROFINET

Related to:

MD10368 \$MN\_HW\_ASSIGN\_DIG\_FASTOUT

MD10362 \$MN\_HW\_ASSIGN\_ANA\_FASTIN

MD10364 \$MN\_HW\_ASSIGN\_ANA\_FASTOUT

10368	HW_ASSIGN_DIG_FASTOUT			N10	A4	
-	Hardware assignment of external digital NCK outputs			DWORD	PowerOn	
-						
-	4	0x01000000, 0x01000000, 0x01000000...	0x01000000	0x060003FF	7/2	M

**Description:**

For PROFIBUS/PROFINET:

1st + 2nd byte indicate the logical start address of the I/O slot on the PROFIBUS/PROFINET:

Value 0000 means NO active slot

Values 0001..0100 are reserved for the PLC process image (the value of input slots can be read by the NCK without errors; however, output slots are forbidden in this range, and cause an alarm on power up)

1st byte = LowByte of the logical start address

2nd byte = HighByte of the logical start address

3rd byte = 0 = without meaning

4th byte = 5 = segment no. for PROFIBUS/PROFINET

The individual bytes are explained under MD10366 \$MN\_HW\_ASSIGN\_DIG\_FASTIN.

[hw] = Index (0 to 3) for addressing the external digital output bytes

Related to:

MD10366 \$MN\_HW\_ASSIGN\_DIG\_FASTIN

MD10362 \$MN\_HW\_ASSIGN\_ANA\_FASTIN

MD10364 \$MN\_HW\_ASSIGN\_ANA\_FASTOUT

10385	PROFISAFE_MASTER_ADDRESS			N01, N10, -	FBSI	
-	PROFIsafe address master module			DWORD	PowerOn	
-						
-	3	0, 0, 0	0	0x0500FA7D	7/2	M

**Description:**

Definition of the PROFIsafe address of the F master NCK/PLC. Used for unique assignment between F master and F slave. This parameter must be entered corresponding to the parameter "F\_source\_address" set in S7-ES for the F slaves. Communication is only attempted to be set up with F slaves which have this address entered.



10386	PROFISAFE_IN_ADDRESS			N01, N10, -	FBSI	
-	PROFIsafe address input module			DWORD	PowerOn	
-						
840dsl-71	16	0, 0, 0, 0, 0, 0, 0, 0...	0	0x0501FFFF	7/2	M
840dsl-72	48	0, 0, 0, 0, 0, 0, 0, 0...	0	0x0501FFFF	7/2	M
840dsl-73	48	0, 0, 0, 0, 0, 0, 0, 0...	0	0x0501FFFF	7/2	M

**Description:** PROFIsafe destination address of an input module  
Format: 0s 0x aaaa  
s: Bus segment (5 = DP connection on the PLC side)  
x: Sub-slot address  
Value range: 0...1  
x = 0 addresses the F user data signals 1...32  
x = 1 addresses the F user data signals 33...64  
aaaa: Hexadecimal PROFIsafe address of the F module

10387	PROFISAFE_OUT_ADDRESS			N01, N10, -	FBSI	
-	PROFIsafe-address output module			DWORD	PowerOn	
-						
840dsl-71	16	0, 0, 0, 0, 0, 0, 0, 0...	0	0x0501FFFF	7/2	M
840dsl-72	48	0, 0, 0, 0, 0, 0, 0, 0...	0	0x0501FFFF	7/2	M
840dsl-73	48	0, 0, 0, 0, 0, 0, 0, 0...	0	0x0501FFFF	7/2	M

**Description:** PROFIsafe destination address of an output module  
Format: 0s 0x aaaa  
s: Bus segment (5 = DP connection on the PLC side)  
x: Sub-slot address  
Value range: 0...1  
x = 0 addresses the F user data signals 1...32  
x = 1 addresses the F user data signals 33...64  
aaaa: Hexadecimal PROFIsafe address of the F module

10388	PROFISAFE_IN_ASSIGN			N01, N10, -	FBSI	
-	Input.assignment \$A_INSE to PROFIsafe module			DWORD	PowerOn	
-						
840dsl-71	16	0, 0, 0, 0, 0, 0, 0, 0...	0	64064, 64064, 64064, 64064, 64064, 64064...	7/2	M
840dsl-72	48	0, 0, 0, 0, 0, 0, 0, 0...	0	192192	7/2	M
840dsl-73	48	0, 0, 0, 0, 0, 0, 0, 0...	0	192192	7/2	M

**Description:** Assignment between external SPL interface \$A\_INSE and PROFIsafe input module  
The three lower digits indicate the 1st range limit for the \$A\_INSE variables to be fed.  
The three higher digits indicate the 2nd range limit for the \$A\_INSE variables to be fed.  
Example:  
PROFISAFE\_IN\_ASSIGN[0] = 4001 or alternatively 1004:  
The system variables \$A\_INSE[1...4] are fed with the state of the input terminals of the PROFIsafe module specified by MD PROFISAFE\_IN\_ADDRESS[0].

10389	PROFISAFE_OUT_ASSIGN			N01, N10, -	FBSI	
-	Outp.assignment \$A_OUTSE to PROFIsafe module			DWORD	PowerOn	
-						
840dsl-71	16	0, 0, 0, 0, 0, 0, 0, 0...	0	64064, 64064, 64064, 64064, 64064, 64064...	7/2	M
840dsl-72	48	0, 0, 0, 0, 0, 0, 0, 0...	0	192192	7/2	M
840dsl-73	48	0, 0, 0, 0, 0, 0, 0, 0...	0	192192	7/2	M

**Description:** Assignment between external SPL interface \$A\_OUTSE and PROFIsafe output module

The three lower digits indicate the 1st range limit for the \$A\_OUTSE variables to be connected.

The three higher digits indicate the 2nd range limit for the \$A\_OUTSE variables to be connected.

Example:

PROFISAFE\_OUT\_ASSIGN[0] = 64061 or alternatively 61064:

The system variables \$A\_OUTSE[61...64] are fed to the output terminals of the PROFIsafe module specified by MD PROFISAFE\_OUT\_ADDRESS[0].

10393	SAFE_DRIVE_LOGIC_ADDRESS			N01, N04, -	-	
-	Logical drive addresses SI			DWORD	PowerOn	
-						
-	31	6700, 6724, 6748, 6772, 6796, 6820, 6844...	258	16383	7/2	M

**Description:** Logical I/O addresses of the SI message frames of the drives on the PROFIBUS. One address is assigned to one drive.

10394	PLCIO_NUM_BYTES_IN			N10	A4	
-	Number of directly readable input bytes of the PLC I/Os			BYTE	PowerOn	
-						
-	-	0	0	32	7/2	M

**Description:** The number of PLC I/O input bytes that can be read directly by the NC. These bytes are not transmitted by the PLC user program but via an interrupt of the PLC operating system.

The access delay is less than 0.5 ms.

The bytes can be read by the part program and from synchronized actions with the system variables:

\$A\_PBB\_IN,  
\$A\_PBW\_IN,  
\$A\_PBD\_IN,  
\$A\_PBR\_IN  
.

Notice:

The machine data MD10394 \$MN\_PLCIO\_NUM\_BYTES\_IN and MD10395 \$MN\_PLCIO\_LOGIC\_ADDRESS\_IN must be consistent with the PLC-side configuration.

Related to:

MD10395 \$MN\_PLCIO\_LOGIC\_ADDRESS\_IN

10395	PLCIO_LOGIC_ADDRESS_IN			N10	A4	
-	Start addr. of the directly readable input bytes of the PLC I/Os			DWORD	PowerOn	
-						
-	-	0	0	16383	7/2	M

**Description:** Starting from this address, the PLC hardware must configure a number of bytes in MD10394 \$MN\_PLCIO\_NUM\_BYTES\_IN for direct use by the NC. These bytes are not transmitted by the PLC user program, but directly via an interrupt of the PLC operating system. The access delay is less than 0.5 ms. The bytes can be read by the part program and from synchronized actions with the system variables:

\$A\_PBB\_IN,  
 \$A\_PBW\_IN,  
 \$A\_PBD\_IN,  
 \$A\_PBR\_IN

.

Notice:

The machine data MD10394 \$MN\_PLCIO\_NUM\_BYTES\_IN and MD10395 \$MN\_PLCIO\_LOGIC\_ADDRESS\_IN must be consistent with the PLC-side configuration.

Related to:

MD10394 \$MN\_PLCIO\_NUM\_BYTES\_IN

10396	PLCIO_NUM_BYTES_OUT			N10	A4	
-	Number of directly writable output bytes of the PLC I/Os			BYTE	PowerOn	
-						
-	-	0	0	32	7/2	M

**Description:** The number of PLC I/O output bytes that can be written directly by the NC. These bytes are not transmitted by the PLC user program but via an interrupt of the PLC operating system.

The access delay is less than 0.5 ms.

The bytes can be written by the part program and from synchronized actions with the system variables:

\$A\_PBB\_OUT,  
 \$A\_PBW\_OUT,  
 \$A\_PBD\_OUT,  
 \$A\_PBR\_OUT

on the NC side.

Attention:

The machine data MD10396 \$MN\_PLCIO\_NUM\_BYTES\_OUT and MD10397 \$MN\_PLCIO\_LOGIC\_ADDRESS\_OUT must be consistent with the configuration by the PLC, otherwise other PLC output signals will be overwritten.

10397	PLCIO_LOGIC_ADDRESS_OUT			N10	A4	
-	Start addr. of the directly writable output bytes of PLC I/O			DWORD	PowerOn	
-						
-	-	0	0	16383	7/2	M

**Description:** Starting from this address, the PLC hardware must configure a number of MD10396 \$MN\_PLCIO\_NUM\_BYTES\_OUT for direct use by the NC. These bytes are not transmitted by the PLC user program, but directly via an interrupt of the PLC operating system.

1.3 NC machine data

The access delay is less than 0.5 ms.

The bytes can be written by the part program and from synchronized actions with the system variables:

- \$A\_PBB\_OUT,
- \$A\_PBW\_OUT,
- \$A\_PBD\_OUT,
- \$A\_PBR\_OUT
- .

Notice:

The machine data MD10396 \$MN\_PLCIO\_NUM\_BYTES\_OUT and MD10397 \$MN\_PLCIO\_LOGIC\_ADDRESS\_OUT must be consistent with the PLC-side configuration.

Related to:

MD10396 \$MN\_PLCIO\_NUM\_BYTES\_OUT

10398	PLCIO_IN_UPDATE_TIME			N10	A4	
s	Update time for PLCIO input cycle			DOUBLE	PowerOn	
-						
-	-	0.0	0	10000	7/2	M

**Description:** Specification of the time span during which the data of the PLC I/Os directly readable via \$A\_PBx\_IN system variables are updated.  
 This time span is rounded up internally to the next-higher multiple of the time predefined by the IPO cycle.

10399	PLCIO_TYPE_REPRESENTATION			N10	A4	
-	Little/Big Endian for PLCIO			BYTE	PowerOn	
-						
-	-	0	0	1	7/2	M

**Description:** Little/big-Endian format representation of the \$A\_PBx\_OUT, \$A\_PBx\_IN system variable for PLC I/Os directly controllable by NCK.  
 Value = 0 ; the system variable is represented in the little-Endian format  
 Value = 1 ; the system variable is represented in the big-Endian format  
 As a rule, the PLC I/Os must always be controlled in the big-Endian format (value = 1). For compatibility reasons, however, the default setting is the little-Endian format (value = 0).

10400	CC_VDI_IN_DATA			EXP, N02	OEM	
-	Number of input bytes for compile cycles			DWORD	PowerOn	
-						
-	-	0	0	1024	7/1	M

**Description:** The compile cycle user can freely define data within a data block on the PLC user interface. As the user, he determines the size of the interface from PLC to NCK. This machine data describes the length of the area on the VDI interface in bytes which defines the NCK input interface. The sum of this and MD10410 \$MN\_CC\_VDI\_OUT\_DATA must not exceed 400 for software version 1.

10410	CC_VDI_OUT_DATA			EXP, N02	OEM	
-	Number of output bytes for compile cycles			DWORD	PowerOn	
-						
-	-	0	0	1024	7/1	M

**Description:** The compile cycle user can freely define data within a data block on the PLC user interface. As the user, he determines the size of the interface from PLC to NCK. This machine data describes the length of the area on the VDI interface in bytes which defines the NCK output interface. The sum of this and MD10400 \$MN\_CC\_VDI\_IN\_DATA must not exceed 400.

10420	CC_ASSIGN_FASTOUT_MASK			EXP, N10	OEM	
-	Reservation of external outputs for compile cycles			DWORD	PowerOn	
-						
-	-	0	-	-	7/2	M

**Description:** Reservation of high-speed hardware outputs for CC applications  
 Bit 0 (LSB)-14: Mask of the digital output bytes reserved for the CC application  
 Bits 16-30: Mask of the analog outputs reserved for the CC application  
 The hardware outputs reserved here are included in the multiple assignment monitoring routine when the system is powered up. It is recommended to register all the hardware outputs used by CC applications here.  
 Bit 15: Suppresses power-up alarm 4275 (multiple assignment of digital output)  
 Bit 31: Suppresses power-up alarm 4275 (multiple assignment of analog output)

10430	CC_HW_DEBUG_MASK			EXP	OEM	
-	Hardware debug mask for compile cycles			DWORD	PowerOn	
	NBUP, NDLD					
-	-	0	0	0x7ffffff	7/1	M

**Description:** Setting of special responses to peripheral HW interfaces for NCK debug  
 For practical debugging of NCK software, among other things, the response of peripheral units to the loss of the NCK sign of life must be suppressed when the NCK software has run to a breakpoint.  
 Bit 0 (LSB)-3:  
 For practical debugging of NCK software, among other things, the response of peripheral units to the loss of the NCK sign of life must be suppressed when the NCK software has run to a breakpoint.  
 Meaning of set bits:  
 Bit 0:  
 Drive modules ignore the loss of the NCK sign of life  
 Bit 1:  
 Terminal blocks ignore the loss of the NCK sign of life  
 Bit 3:  
 PLC ignores the loss of the NCK sign of life  
 Bit 4:  
 Recording of internal and external control commands. Recording the control sequences and storing them in a file in the passive file system. One can trace the exact sequence between the incoming hardware signals of the PLC interface and the internal sequences with the aid of the recording file.

1.3 NC machine data

Bit 5:

Servotrace: Enable physical addresses without access control

Bit10:

Test for measuring function. If this bit is set, one can use the GUD variables CHAN INT MEA\_TASK and CHAN INT MEA\_COUNTER to transfer the inverse transformation of the measured values into cyclical and non-cyclical tasks.

Bit11:

No EMERGENCY STOP alarm on loss of PLC sign of life. If the PLC sign of life is not obtained within the time defined in MD10100 \$MN\_PLC\_CYCLIC\_TIMEOUT, an alarm is not issued, merely the axis releases are withdrawn. (Application case: debugging the PLC user program)

Bit15:

Reserved for gantry setup help.

10450	SW_CAM_ASSIGN_TAB			N09	N3	
-	Assignment of software cams to machine axes			BYTE	PowerOn	
-						
-	32	0, 0, 0, 0, 0, 0, 0, 0...	0	31	7/2	M

**Description:** This machine data allows one machine axis to be assigned to each of the 16 possible cam pairs (each is comprised of one minus and one plus cam). If a "0" is entered, the corresponding cam is not processed. The cam signal output is activated via the axial NC/PLC interface signal DB31, ... DBX2.0 (Cam activation) Index [n] of the machine data addresses the cam pair: n = 0, 1, ... , 15 correspond to cam pairs 1, 2, ... , 16

Related to:  
NC/PLC interface signal DB31, ... DBX2.0 (Cam activation)

Example:  
Cam pair 1 is to be assigned to machine axis 3, and cam pair 3 to machine axis 4. Cam pair 2 is not to be assigned to an axis.  
MD10450 \$MN\_SW\_CAM\_ASSIGN\_TAB[0] = 3  
MD10450 \$MN\_SW\_CAM\_ASSIGN\_TAB[1] = 0  
MD10450 \$MN\_SW\_CAM\_ASSIGN\_TAB[2] = 4

10460	SW_CAM_MINUS_LEAD_TIME			N09	N3	
s	Lead or delay time at minus cams 1-16			DOUBLE	PowerOn	
-						
-	32	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/2	M

**Description:** A lead or delay time can be assigned in this machine data to each minus cam 1-16 to compensate for delay times. The switching edge of the associated cam signal is advanced or delayed by the time value entered.

Positive value: --> Lead time  
Negative value: --> Delay time

Serves to compensate for the constant proportion of the internal delay time between actual value acquisition and signal output.

Index [n] of the machine data addresses the cam pair:  
n = 0, 1, ... , 15 correspond to cam pairs 1, 2, ... , 16

This machine data is added to the setting data SD41520 \$SN\_SW\_CAM\_MINUS\_TIME\_TAB\_1[n] and SD41522 \$SN\_SW\_CAM\_MINUS\_TIME\_TAB\_2[n].

Related to:

SD41520 \$SN\_SW\_CAM\_MINUS\_TIME\_TAB\_1[n] (lead or delay time on minus cams 1 - 8)

SD41522 \$SN\_SW\_CAM\_MINUS\_TIME\_TAB\_2[n] (lead or delay time on minus cams 9 - 16)

10461	SW_CAM_PLUS_LEAD_TIME			N09	N3	
s	Lead or delay time at plus cams 1-16			DOUBLE	PowerOn	
-						
-	32	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/2	M

**Description:** A lead or delay time can be assigned in this machine data to each plus cam 1-16 to compensate for delay times.  
The switching edge of the associated cam signal is advanced or delayed by the time value entered.  
Positive value: --> Lead time  
Negative value: --> Delay time  
Serves to compensate for the constant proportion of the internal delay time between actual value acquisition and signal output.  
Index [n] of the machine data addresses the cam pair:  
n = 0, 1, ... , 15 correspond to cam pairs 1, 2, ... , 16  
This machine data is added to the setting data SD41521 \$SN\_SW\_CAM\_PLUS\_TIME\_TAB\_1[n] and SD41523 \$SN\_SW\_CAM\_PLUS\_TIME\_TAB\_2[n].  
Related to:  
SD41521 \$SN\_SW\_CAM\_PLUS\_TIME\_TAB\_1[n] (lead or delay time on plus cams 1 - 8)  
SD41523 \$SN\_SW\_CAM\_PLUS\_TIME\_TAB\_2[n] (lead or delay time on plus cams 9 - 16)

10470	SW_CAM_ASSIGN_FASTOUT_1			N09	N3	
-	Hardware assignment for output of cams 1-8 to NCK I/Os			DWORD	PowerOn	
-						
-	-	0	-	-	7/2	M

**Description:** The cam signal status can be output to the NCK I/Os as well as to the PLC.  
The hardware assignment of the minus and plus cam signals to the digital output bytes used for the NCK I/Os is made in this machine data for cam pairs 1 - 8.  
The assigned output signals can also be inverted with this machine data.  
The MD is coded as follows:  
Bits 0-7: No. of 1st HW byte used with digital outputs  
Bits 8-15: No. of 2nd HW byte used with digital outputs  
Bits 16-23: Inversion mask for writing 1st HW byte used  
Bits 24-31: Inversion mask for writing 2nd HW byte used  
Bit=0: Do not invert  
Bit=1: Invert  
If both HW bytes are specified, the 1st byte contains the minus cam signals and the 2nd byte the plus cam signals.  
If the 2nd byte is not specified (= "0"), then the 8 cams are output as an AND operation of the minus and plus cam signals via the 1st HW byte using the 1st inversion mask.

1.3 NC machine data

The status of the non-inverted output signal for linear axes and for rotary axes with "plus cam - minus cam < 180 degrees" is:

"1" between minus and plus cams

"0" outside this range

The status of the non-inverted output signal for rotary axes with "plus cam - minus cam >= 180 degrees" is:

"0" between minus and plus cams

"1" outside this range

The following must be specified as the byte address for the digital outputs:

1: for on-board byte

2 - 5: for external bytes

10471	SW_CAM_ASSIGN_FASTOUT_2			N09	N3	
-	Hardware assignment for the output of cams 9-16 to NCK I/Os			DWORD	PowerOn	
-						
-	-	0	-	-	7/2	M

**Description:** The cam signal status can be output to the NCK I/Os as well as to the PLC. The hardware assignment of the minus and plus cam signals to the digital output bytes used for the NCK I/Os can be made in this machine data for cam pairs 9 - 16.

The assigned output signals can also be inverted with this machine data.

The MD is coded as follows:

Bits 0-7: No. of 1st HW byte used with digital outputs

Bits 8-15: No. of 2nd HW byte used with digital outputs

Bits 16-23: Inversion mask for writing 1st HW byte used

Bits 24-31: Inversion mask for writing 2nd HW byte used

Bit=0: Do not invert

Bit=1: Invert

If both HW bytes are specified, the 1st byte contains the minus cam signals and the 2nd byte the plus cam signals.

If the 2nd byte is not specified (= "0"), then the 8 cams are output as an AND operation of the minus and plus cam signals via the 1st HW byte using the 1st inversion mask.

The status of the non-inverted output signal for linear axes and for rotary axes with "plus cam - minus cam < 180 degrees" is:

"1" between minus and plus cams

"0" outside this range

The status of the non-inverted output signal for rotary axes with "plus cam - minus cam >= 180 degrees" is:

"0" between minus and plus cams

"1" outside this range

The following must be specified as the byte address for the digital outputs:

1: for on-board byte

2 - 5: for external bytes

10472	SW_CAM_ASSIGN_FASTOUT_3			N09	N3	
-	Hardware assignment for output of cams 17-24 to NCK I/Os			DWORD	PowerOn	
-						
-	-	0	-	-	7/2	M

**Description:** The cam signal status can be output to the NCK I/Os as well as to the PLC.



The hardware assignment of the minus and plus cam signals to the digital output bytes of the NCK I/Os used can be made in this machine data for cam pairs 17 - 24.

The assigned output signals can also be inverted with this machine data.

The MD is coded as follows:

Bits 0-7: Number of 1st HW byte used with digital outputs

Bits 8-15: Number of 2nd HW byte used with digital outputs

Bits 16-23: Inversion mask for writing 1st HW byte used

Bits 24-31: Inversion mask for writing 2nd HW byte used

Bit=0: Do not invert

Bit=1: Invert

If both HW bytes are specified, the 1st byte contains the minus cam signals and the 2nd byte the plus cam signals.

If the 2nd byte is not specified (= "0"), then the 8 cams are output as an AND operation of the minus and plus cam signals via the 1st HW byte using the 1st inversion mask.

The status of the non-inverted output signal for linear axes and for rotary axes with "plus cam - minus cam < 180 degrees" is:

"1" between minus and plus cams

"0" outside this range

The status of the non-inverted output signal for rotary axes with "plus cam - minus cam >= 180 degrees" is:

"0" between minus and plus cams

"1" outside this range

The following must be specified as the byte address for the digital outputs:

1: for on-board byte

2 - 5: for external bytes

10473	SW_CAM_ASSIGN_FASTOUT_4			N09	N3	
-	Hardware assignment for output of cams 25-32 to NCK I/Os			DWORD	PowerOn	
-						
-	-	0	-	-	7/2	M

**Description:**

The cam signal status can be output to the NCK I/Os as well as to the PLC. The hardware assignment of the minus and plus cam signals to the digital output bytes of the NCK I/Os used can be made in this machine data for cam pairs 25 - 32.

The assigned output signals can also be inverted with this machine data.

The MD is coded as follows:

Bits 0-7: Number of 1st HW byte used with digital outputs

Bits 8-15: Number of 2nd HW byte used with digital outputs

Bits 16-23: Inversion mask for writing 1st HW byte used

Bits 24-31: Inversion mask for writing 2nd HW byte used

Bit=0: Do not invert

Bit=1: Invert

If both HW bytes are specified, the 1st byte contains the minus cam signals and the 2nd byte the plus cam signals.

If the 2nd byte is not specified (= "0"), then the 8 cams are output as an AND operation of the minus and plus cam signals via the 1st HW byte using the 1st inversion mask.

1.3 NC machine data

The status of the non-inverted output signal for linear axes and for rotary axes with "plus cam - minus cam < 180 degrees" is:

"1" between minus and plus cams

"0" outside this range

The status of the non-inverted output signal for rotary axes with "plus cam - minus cam >= 180 degrees" is:

"0" between minus and plus cams

"1" outside this range

The following must be specified as the byte address for the digital outputs:

1: for on-board byte

2 - 5: for external bytes

10480	SW_CAM_TIMER_FASTOUT_MASK	N09	N3
-	Mask for output of cam signals via timer interr. to NCU	DWORD	PowerOn
-			
-	-	0	-
			7/2 M

**Description:**

A timer-controlled output to the 4 on-board outputs of the NCK I/Os can be selected in this machine data for 4 cam pairs.

In this case, the minus and plus signals of a cam pair are "EXCLUSIVE OR'd" for output as one signal.

Meaning for set bit:

Associated cam (minus and plus cam signals "EXCLUSIVE OR'd") is output via a timer interrupt at one of the 4 on-board outputs of the NCU.

The on-board outputs are assigned in order of increasing machine axis numbers (with assigned cam pairs).

Example:

Machine axis 3 = cam pair 1 --> on-board output 3

Machine axis 1 = cam pair 2 --> on-board output 1

Machine axis 7 = cam pair 3 --> on-board output 4

Machine axis 2 = cam pair 4 --> on-board output 2

If a plurality of cam pairs are set for one machine axis, then this axis is assigned in ascending order of the cam pairs.

Example:

Machine axis 3 = cam pair 1 --> on-board output 2

Machine axis 3 = cam pair 2 --> on-board output 3

Machine axis 7 = cam pair 3 --> on-board output 4

Machine axis 2 = cam pair 4 --> on-board output 1

This function works independently of the assignment set in MD10470 \$MN\_SW\_CAM\_ASSIGN\_FASTOUT\_1 or MD10471 \$MN\_SW\_CAM\_ASSIGN\_FASTOUT\_2.

Note:

The on-board byte must not be used more than once.

If there is more than one signal change in the IPO cycle for the cam pairs specified in the MD, then the cam pair with the lowest number determines the instant of output. The other signals change at the same time.

10485	SW_CAM_MODE	N09	N3
-	Behavior of SW cams	DWORD	PowerOn
-			
-	-	0	-
-	-		7/2
-	-		M

**Description:**

Meaning of the individual bits:

Bit 0 (LSB) = 0:

If more than 1 signal change per interpolation cycle is due for the cams specified in MD10480 \$MN\_SW\_CAM\_TIMER\_FASTOUT\_MASK, the cam having the lowest number will determine the output instant. The other signals change at the same instant. That is, a maximum of one interrupt-controlled output is effected per interpolation cycle.

Bit 0 (LSB) = 1:

Each cam specified in MD10480 \$MN\_SW\_CAM\_TIMER\_FASTOUT\_MASK will be output precisely at the time of the interpolation cycle. There is no output priority of the cams. A maximum of 8 interrupt-controlled outputs can be performed per interpolation cycle.

Bit 1 = 0:

Inversion of signal behavior from plus cam, where plus cam - minus cam  $\geq$  180 degr.

Bit 1 = 1:

No inversion of signal behavior from plus cam, where plus cam - minus cam  $\geq$  180 degr.

Signal behavior on-board output:

Overtravelling:

Minus cam plus cam

Traversing direction:

positive 0->1 1->0

negative 1->0 0->1

Bit 2 = 0:

No path-time cam

Bit 2 = 1:

Path-time cam for cams where minus position = plus position. The lead/delay time applied is independent of:

- velocity of the axis
- position of the axis
- reversal of traversing direction

The cam is only activated on overtravelling of the cam position. A lead/delay time applied to the minus cam is active and leads to a shift of the whole cam.

Bit 3 = 0:

No alignment signal in case of measurement area selection.

Bit 3 = 1:

Output of an alignment signal for measurement area selection (FM only). On-board output 8 is used permanently.

On-board output 8 = 1: Measurement possible (active range enabled)

On-board output 8 = 0: Measurement not possible

Bit 4 = 0:

and following free

1.3 NC machine data

10490	SW_CAM_COMP_NCK_JITTER			N09	-	
s	Cam jitter compensation			DOUBLE	NEW CONF	
-						
-	-	0	0.0	0.0001	7/2	M

**Description:** The compensation value reduces system-related time inaccuracies during output of highly precise cam signals. The default time encumbers the cyclic time level of the control, and should therefore be selected as short as possible. It is recommended to return a cam signal to a measuring input of the control and to increase the compensation value until the scatter of the measured positions cannot be reduced any further.  
 Currently only active when MD10485 \$MN\_SW\_CAM\_MODE Bit0 = 0.

10500	DPIO_LOGIC_ADDRESS_IN			N10	A4	
-	Logical slot address of the PROFIBUS/PROFINET I/Os			DWORD	PowerOn	
-						
-	16	0, 0, 0, 0, 0, 0, 0, 0...	0	16383	7/2	M

**Description:** Logical slot address of the PROFIBUS/PROFINET I/Os usable by the NCK.

10501	DPIO_RANGE_LENGTH_IN			N10	A4	
-	Length of the PROFIBUS/PROFINET I/O range			DWORD	PowerOn	
-						
-	16	0, 0, 0, 0, 0, 0, 0, 0...	0	128	7/2	M

**Description:** Length of the PROFIBUS/PROFINET I/O range in bytes consistently usable for the NCK. This range must be defined in STEP 7, hardware configuration.  
 0: only the first data slot is used.  
 x: length of the consistent PROFIBUS/PROFINET I/O range in bytes  
 Note: in PROFINET, it is not possible to combine several slots in one area.

10502	DPIO_RANGE_ATTRIBUTE_IN			N10	A4	
-	Attributes of the PROFIBUS/PROFINET I/Os			DWORD	PowerOn	
-						
-	16	0x01, 0x01, 0x01, 0x01, 0x01, 0x01, 0x01...	0x00	0x0F	7/2	M

**Description:** Attributes of the PROFIBUS/PROFINET I/Os  
 Bit 0: Little/Big Endian format of the system variable \$A\_DPx\_IN[n,m]  
 0: Little Endian format  
 1: Big Endian format  
 Bit 1: (reserved)  
 Bit 2: Read input data  
 0: Read possible through system variable and CC binding (increased performance requirements)  
 1: Read only possible for CC binding (low performance requirements)  
 Bit 3: Slot sign-of-life alarm  
 0: Slot sign-of-life alarms are output  
 1: Slot sign-of-life alarms are suppressed

10510	DPIO_LOGIC_ADDRESS_OUT			N10	A4	
-	Logical slot address of the PROFIBUS/PROFINET I/Os			DWORD	PowerOn	
-						
-	16	0, 0, 0, 0, 0, 0, 0, 0...	0	16383	7/2	M

**Description:** Logical slot address of the PROFIBUS/PROFINET I/Os usable by the NCK.  
Note: the logical slot address must lie outside the PLC process image.

10511	DPIO_RANGE_LENGTH_OUT			N10	A4	
-	Length of the PROFIBUS I/O range			DWORD	PowerOn	
-						
-	16	0, 0, 0, 0, 0, 0, 0, 0...	0	128	7/2	M

**Description:** Length of the PROFIBUS I/O range consistently usable for the NCK in bytes. This range must be defined in STEP 7, hardware configuration.  
0: only the first data slot is used.  
x: length of the consistent PROFIBUS I/O range in bytes  
Note: in PROFINET it is not possible to combine several slots to form one area.

10512	DPIO_RANGE_ATTRIBUTE_OUT			N10	A4	
-	Attributes of the PROFIBUS/PROFINET I/Os			DWORD	PowerOn	
-						
-	16	0x01, 0x01, 0x01, 0x01, 0x01, 0x01, 0x01...	0x00	0x0F	7/2	M

**Description:** Attributes of the PROFIBUS/PROFINET I/Os  
Bit 0: Little/Big Endian format of system variable \$A\_DPx\_OUT[n,m]  
0: Little Endian format  
1: Big Endian format  
Bit 1: Write output data  
0: Write only through system variable  
1: Write only through CC binding  
Bit 2: (reserved)  
Bit 3: Slot sign-of-life alarm  
0: Slot sign-of-life alarms are output  
1: Slot sign-of-life alarms are suppressed

10530	COMPAR_ASSIGN_ANA_INPUT_1			N10	A4	
-	Hardware assignment of analog inputs for comparator byte 1			BYTE	PowerOn	
-						
-	8	0, 0, 0, 0, 0, 0, 0, 0	-	-	7/2	M

**Description:** This MD assigns analog inputs 1 to 8 to a bit number of comparator byte 1. This input bit of the comparator is set to "1" if the comparison between the applied analog value and the associated threshold value (SD41600 \$SN\_COMPAR\_THRESHOLD\_1 fulfills the condition parameterized in (MD10540 \$MN\_COMPAR\_TYPE\_1).  
An analog input can be assigned to a plurality of comparator input bits. The following generally applies to comparator byte 1:  
COMPAR\_ASSIGN\_ANA\_INPUT\_1 [b] = n  
with index: b = number of comparator input bit (0 to 7)  
n = number of analog input (1 to 8)

Example:

```

COMPAR_ASSIGN_ANA_INPUT_1[0] = 1
COMPAR_ASSIGN_ANA_INPUT_1[1] = 2
COMPAR_ASSIGN_ANA_INPUT_1[2] = 1
COMPAR_ASSIGN_ANA_INPUT_1[3] = 3
COMPAR_ASSIGN_ANA_INPUT_1[4] = 3
COMPAR_ASSIGN_ANA_INPUT_1[5] = 1
COMPAR_ASSIGN_ANA_INPUT_1[6] = 1
COMPAR_ASSIGN_ANA_INPUT_1[7] = 1
    
```

Analog input 1 affects input bits 0, 2, 5, 6 and 7 of comparator byte 1

Analog input 2 affects input bit 1 of comparator byte 1

Analog input 3 affects input bits 3 and 4 of comparator byte 1

Related to:

MD10540 \$MN\_COMPAR\_TYPE\_1

MD10541 \$MN\_COMPAR\_TYPE\_2

10531	COMPAR_ASSIGN_ANA_INPUT_2	N10	A4
-	Hardware assignment of analog inputs for comparator byte 2	BYTE	PowerOn
-			
-	8	0, 0, 0, 0, 0, 0, 0	-
			7/2
			M

**Description:**

This MD assigns analog inputs 1 to 8 to a bit number of comparator byte 2. This input bit of the comparator is set to "1" if the comparison between the applied analog value and the associated threshold value (SD41601 \$SN\_COMPAR\_THRESHOLD\_2 fulfills the condition parameterized in (MD10541 \$MN\_COMPAR\_TYPE\_2).

An analog input can be assigned to a plurality of comparator input bits.

The following generally applies to comparator byte 2:

```

COMPAR_ASSIGN_ANA_INPUT_2 [b] = n
with index:b = number of comparator input bit (0 to 7)
n = number of analog input (1 to 8)
    
```

Example:

```

COMPAR_ASSIGN_ANA_INPUT_2[0] = 1
COMPAR_ASSIGN_ANA_INPUT_2[1] = 2
COMPAR_ASSIGN_ANA_INPUT_2[2] = 1
COMPAR_ASSIGN_ANA_INPUT_2[3] = 3
COMPAR_ASSIGN_ANA_INPUT_2[4] = 3
COMPAR_ASSIGN_ANA_INPUT_2[5] = 1
COMPAR_ASSIGN_ANA_INPUT_2[6] = 1
COMPAR_ASSIGN_ANA_INPUT_2[7] = 1
    
```

Analog input 1 affects input bits 0, 2, 5, 6 and 7 of comparator byte 2

Analog input 2 affects input bit 1 of comparator byte 2

Analog input 3 affects input bits 3 and 4 of comparator byte 2

Related to:

MD10540 \$MN\_COMPAR\_TYPE\_1

MD10541 \$MN\_COMPAR\_TYPE\_2

10540	COMPAR_TYPE_1	N10	A4
-	Parameterization for comparator byte 1	DWORD	PowerOn
-			
-	-	0	-
-	-	-	-
-	-	7/2	M

**Description:** This MD can be used to make the following settings for the individual output bits (0 to 7) of comparator byte 1:

- Bits 0 to 7: Comparison type mask (for comparator output bits 0 to 7)
  - Bit = 1: output bit = 1 if analog value  $\geq$  threshold value
  - Bit = 0: output bit = 1 if analog value  $<$  threshold value  
(Threshold value defined by SD41600 \$SN\_COMPAR\_THRESHOLD\_1)
- Bits 8 to 15: Not used (defined to be set to 0)
- Bits 16 to 23: Assignment of a HW output byte for outputting the comparator states (statement of the byte address)
  - Byte = 0: No output via digital NCK outputs
  - Byte = 1: Output via digital onboard NCK outputs (1 to 4)
  - Byte = 2: Output via external digital NCK outputs 9 to 16
  - Byte = 3: Output via external digital NCK outputs 17 to 24
  - Byte = 4: Output via external digital NCK outputs 25 to 32
  - Byte = 5: Output via external digital NCK outputs 33 to 40
- Bits 24 to 31: Inversion mask for the output of the comparator states (bits 0 to 7)
  - Bit = 0: Output bit is not inverted
  - Bit = 1: Output bit is inverted

Related to:

MD10530 \$MN\_COMPAR\_ASSIGN\_ANA\_INPUT\_1

MD10531 \$MN\_COMPAR\_ASSIGN\_ANA\_INPUT\_2

SD41600 \$SN\_COMPAR\_THRESHOLD\_1

SD41601 \$SN\_COMPAR\_THRESHOLD\_2

MD10360 \$MN\_FASTIO\_DIG\_NUM\_OUTPUTS

10541	COMPAR_TYPE_2	N10	A4
-	Parameterization of comparator byte 2	DWORD	PowerOn
-			
-	-	0	-
-	-	-	-
-	-	7/2	M

**Description:** This MD can be used to make the following settings for the individual output bits (0 to 7) of comparator byte 2:

- Bits 0 to 7: Comparison type mask (for comparator output bits 0 to 7)
  - Bit = 1: output bit = 1 if analog value  $\geq$  threshold value
  - Bit = 0: output bit = 1 if analog value  $<$  threshold value  
(Threshold value defined by SD41601 \$SN\_COMPAR\_THRESHOLD\_2)
- Bits 8 to 15: not used (defined to be set to 0)
- Bits 16 to 23: Assignment of a HW output byte for outputting the comparator states (statement of the byte address)
- Byte = 0: no output via digital NCK outputs
  - Byte = 1: output via digital onboard NCK outputs (1 to 4)
  - Byte = 2: output via external digital NCK outputs 9 to 16
  - Byte = 3: output via external digital NCK outputs 17 to 24
  - Byte = 4: output via external digital NCK outputs 25 to 32
  - Byte = 5: output via external digital NCK outputs 33 to 40

- Bits 24 to 31: Inversion mask for the output of the comparator states (bits 0 to 7)
  - Bit = 0: Output bit is not inverted
  - Bit = 1: Output bit is inverted

Related to:

- MD10530 \$MN\_COMPAR\_ASSIGN\_ANA\_INPUT\_1
- MD10531 \$MN\_COMPAR\_ASSIGN\_ANA\_INPUT\_2
- SD41600 \$SN\_COMPAR\_THRESHOLD\_1
- SD41601 \$SN\_COMPAR\_THRESHOLD\_2
- MD10360 \$MN\_FASTIO\_DIG\_NUM\_OUTPUTS

10600	FRAME_ANGLE_INPUT_MODE			EXP, N01, N09	K2	
-	Sequence of rotation in FRAME			BYTE	PowerOn	
-						
-	-	1	1	2	7/2	M

**Description:** FRAME\_ANGLE\_INPUT\_MODE sets how the rotations (ROT and AROT) around the three geometry axes are defined if more than one rotation is programmed in a block. The order in which these rotations are programmed within the block is irrelevant.

The rotations can be set to be calculated according to:

- Euler angle with FRAME\_ANGLE\_INPUT\_MODE = 2

The rotations are calculated according to the Euler angle in the following order:

1. Rotation around Z
2. Rotation around X
3. Rotation around Y

- RPY with FRAME\_ANGLE\_INPUT\_MODE = 1

The rotations are calculated according to the Euler angle in the following order:

1. Rotation around Z
2. Rotation around Y
3. Rotation around X

10602	FRAME_GEOAX_CHANGE_MODE			EXP, N01, N09	K2	
-	Frames when changing geometry axes			BYTE	PowerOn	
-						
-	-	0	0	5	7/2	M

**Description:** Geometry axes can be switched over in the following states:

- Selection and deselection of transformations
- Switchable geometry axes GEOAX()

The current total frame is then defined as follows:

0: The current total frame is canceled.

1: The current total frame is recalculated when geometry axes are switched over. Translations, scaling and mirroring for the new geometry axes become active. The rotations of the old geometry axes still apply.

2: The current total frame is recalculated when geometry axes are switched over. Translations, scaling and mirroring for the new geometry axes become active. If rotations were active before switching over to the current base frames, current settable frame or programmable frame, switchover is canceled with an alarm.



3: The current total frame is deleted when selecting and deselecting transformations. When the GEOAX() command is entered, the frame is recalculated and transaction, scaling and mirroring for the new geometry axes become active. The rotations of the old geometry axes still apply.

10604	WALIM_GEOAX_CHANGE_MODE			EXP, N01, N09	A3	
-	Working area limitation by changing geometry axes			BYTE	PowerOn	
-						
-	-	0	0	1	7/2	M

**Description:** This machine data specifies whether a potentially active working area limitation will remain active after geo axis replacement, or whether it will be deactivated.

Meaning of the MD values:

= 0 Working area limitation will be deactivated when replacing geo axis.

= 1 Working area limitation will remain activated when replacing geo axis.

10610	MIRROR_REF_AX			EXP, N01, N09	K2	
-	Reference axis for mirroring			BYTE	PowerOn	
-						
-	-	0	0	3	7/2	M

**Description:** 0: Mirroring always takes place in the stated axis, without scaling. The mirroring of a geometry axis can always be related to a defined reference axis.

1: x is the reference axis

Mirroring of the x axis is unique.

Mirroring of the y axis is mapped on:

a mirroring of the x axis and

a rotation of the z axis through 180 degrees.

Mirroring of the z axis is mapped on:

a mirroring of the x axis and

a rotation of the x axis through 180 degrees and

a rotation of the z axis through 180 degrees

2: y is the reference axis

Mirroring of the x axis is mapped on:

a mirroring of the y axis and

a rotation of the z axis through 180 degrees.

Mirroring of the y axis is unique.

Mirroring of the z axis is mapped on:

a mirroring of the y axis and

a rotation of the x axis through 180 degrees

3: z is the reference axis

Mirroring of the x axis is mapped on:

a mirroring of the z axis and

a rotation of the z axis through 180 degrees and

a rotation of the x axis through 180 degrees

Mirroring of the y axis is mapped on:

a mirroring of the z axis and

a rotation of the x axis through 180 degrees.

Mirroring of the z axis is unique.

10612	MIRROR_TOGGLE			EXP, N01, N09	K2	
-	Mirror toggle			BYTE	PowerOn	
-						
-	-	1	0	1	7/2	M

**Description:**

Mirror toggle function.

1: Programmed axis values are not evaluated. Toggle switching behavior.

0: Programmed axis values are evaluated.

The axes are mirrored in the case of values not equal to 0 if they are not already mirrored. Mirroring is disabled if the value is 0.

10613	NCBFRAME_RESET_MASK			EXP	K2	
-	Active NCU global base frames after reset			DWORD	Reset	
-						
-	-	0xFFFF	0	0xFFFF	7/2	M

**Description:**

Bit mask for the reset setting of the NCU global base frames which are included in the channel.

The following applies:

When MD20110 \$MC\_RESET\_MODE\_MASK bit0 = 1 and bit14 = 1

The entire base frame is derived on reset from the linking of the NCU global base frame field elements whose bit in the bit mask is 1.

When MD20110 \$MC\_RESET\_MODE\_MASK bit0 = 1 and bit14 = 0

The entire base frame is deselected on reset.

10615	NCBFRAME_POWERON_MASK			EXP, N12	K2	
-	Reset global base frames after power on			DWORD	PowerOn	
-						
-	-	0	0	0xFFFF	7/2	M

**Description:**

This machine data defines whether global base frames are reset in the data management on Power On.

That is

- Offsets are set to 0,
- Scalings are set to 1.
- Mirroring is disabled.

The individual base frames can be selected separately.

Bit 0 means base frame 0, bit 1 base frame 1 etc.

Value=0: Base frame is retained on Power On

Value=1: Base frame is reset in the data management on Power On.

Related to:

MD24004 \$MC\_CHBFRAME\_POWERON\_MASK

10616	MAPPED_FRAME_MASK			N01	-	
-	Enable frame mapping			DWORD	PowerOn	
-						
-	-	0x3001	0	0x00003FFF	7/2	M

**Description:**

Bit mask for channel-specific data management frames, the axial frames of which can be mapped onto other axial frames.

The mapping takes place via \$MA\_MAPPED\_FRAME[AXn] = "AXm".

Bit 0:\$P\_SETFRSystem frame for actual value setting and scratching

Bit 1:\$P\_EXTFRSystem frame for external work offset

Bit 2:\$P\_PARTFRSystem frame for TCARR and PAROT  
 Bit 3:\$P\_TOOLFRSystem frame for TOROT and TOFRAME  
 Bit 4:\$P\_WPFRSystem frame for workpiece reference points  
 Bit 5:\$P\_CYCFRSystem frame for cycles  
 Bit 6:\$P\_TRAFRSystem frame for transformations  
 Bit 7:\$P\_ISO1FRSystem frame for ISO G51.1 Mirror  
 Bit 8:\$P\_ISO2FRSystem frame for ISO G68 2DROT  
 Bit 9:\$P\_ISO3FRSystem frame for ISO G68 3DROT  
 Bit 10:\$P\_ISO4FRSystem frame for ISO G51 Scale  
 Bit 11: \$P\_RELFSystem frame for relative coordinate systems  
 Bit12:\$P\_CHBFRChannel-specific basic frames  
 Bit13:\$P\_UIFRSettable frames

10617	FRAME_SAVE_MASK	EXP	K2
-	Behavior of frames in SAVE subroutines	DWORD	PowerOn
-			
-	-	0	0
-	-	0x3	7/2 M

**Description:** This machine data is used to define which frames are restored with SAVE attribute at return from a subprogram.

Bit 0: Settable frames G54 through G599

Value = 0:  
If the same G code is active at subprogram return and subprogram call, the active settable frame is maintained. If not, the settable frame is reactivated when the subprogram is called.

Value = 1:  
At subprogram return, the settable frame is reactivated when the subprogram is called.

Bit 1: Basic frame

Value = 0:  
The active basic frame is not changed at subprogram return. This is also the case, if a basic frame change is carried out in the subprogram by an operation or by an implicit frame deselection (possibly through TRAFOOF).

Value = 1:  
At subprogram return, the basic frame is reactivated when the subprogram is called.

10618	PROTAREA_GEOAX_CHANGE_MODE	EXP, N01, N09	A3
-	Protection range on change of geometry axes	BYTE	PowerOn
-			
-	-	0	0
-	-	3	7/2 M

**Description:** This machine data is used to define whether any active protection zones will remain active after a transformation change or geo axis replacement, or whether they will be deactivated.

The machine data is bit-coded with the following meanings:

Bit 0 = 0  
Protection zones deactivated on transformation change.

Bit 0 = 1  
Active protection zones remain active after transformation change.

Bit 1 = 0  
Protection zones deactivated on geo axis replacement.

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Bit 1 = 1

Active protection zones remain active after geo axis replacement.

10619	COLLISION_TOLERANCE	EXP	-
mm	Tolerance for collision check	DOUBLE	NEW CONF
-			
-	-	1	0.001
		1000.0	7/3
			M

**Description:** This parameter is used to set the required collision check accuracy. This means: If the distance between two protection zones is smaller than this value, a collision of those two protection zones may be signalled. But: Two protection zones that overlap by less than this value cannot be classified as colliding.

10620	EULER_ANGLE_NAME_TAB	N01, N09	F2,TE4
-	Name of Euler angle	STRING	PowerOn
-			
-	3	A2, B2, C2	-
			7/2
			M

**Description:**

- The name entered must not conflict with the designation and assignment of machine and geometry axis names.
- The name entered must not conflict with channel axis names in the channel (MD20080 \$MC\_AXCONF\_CHANAX\_NAME\_TAB), names for directional vectors (MD10640 \$MN\_DIR\_VECTOR\_NAME\_TAB), names for intermediate point coordinates for CIP (MD10660 \$MN\_INTERMEDIATE\_POINT\_NAME\_TAB) or the names for interpolation parameters (MD10650 \$MN\_IPO\_PARAM\_NAME\_TAB).
- The name entered must not contain the following reserved address letters:
  - D Tool offset (D function)
  - E Reserved
  - F Feedrate (F function)
  - G Preparatory function
  - H Auxiliary function (H function)
  - L Subprogram call
  - M Special function (M function)
  - N Subblock
  - P Number of subroutine repetitions
  - R Arithmetic parameter
  - S Spindle speed (S function)
  - T Tool (T function)
- Nor are keywords (e.g. DEF, SPOS etc.) or predefined identifiers (e.g. ASPLINE, SOFT) allowed.
- An angle identifier consists of a valid address letter (A, B, C, I, J, K, Q, U, V, W, X, Y, Z), followed by an optional numerical extension (1-99).

10622	COLLISION_SAFETY_DIST	EXP	-
mm	Safety distance for collision check	DOUBLE	NEW CONF
-			
-	-	0.0	0.000
		1000.0	7/3
			M

**Description:** If the distance between two protection zones becomes smaller than this safety distance, this is regarded as a collision. This machine data is globally effective for protective zone pairs for which no special safety distance was specified (s. function COLLCHECK).

10624	ORIPATH_LIFT_VECTOR_TAB		N01, N09	-		
-	Name of retraction vector for path-relative orientation.		STRING	PowerOn		
-						
-	3	A8, B8, C8	-	-	7/2	M

**Description:** List of identifiers for components of the retraction vector during reorientations for path relative interpolation of the tool orientation.

The rules for axis identifiers as described in MD20080 \$MC\_AXCONF\_CHANAX\_NAME\_TAB apply to the selection of identifiers. The identifiers must be selected so that they do not cause any conflicts with other identifiers (axes, normal vectors, direction vectors, conical interpolation vectors, interpolation parameters, intermediate point coordinates).

10626	ORIPATH_LIFT_FACTOR_NAME		N01, N09	-		
-	Name of relative safety clearance with ORIPATH		STRING	PowerOn		
-						
-	-	ORIFLF	-	-	7/2	M

**Description:** Identifier for relative factor for determining a safety clearance for the retracting movement during reorientations for path relative interpolation of the tool orientation.

The rules for axis identifiers as described in MD20080 \$MC\_AXCONF\_CHANAX\_NAME\_TAB apply to the selection of identifiers. The identifiers must be selected so that they do not cause any conflicts with other identifiers (axes, normal vectors, direction vectors, conical interpolation vectors, interpolation parameters, intermediate point coordinates).

10630	NORMAL_VECTOR_NAME_TAB		N01, N09	F2		
-	Name of normal vectors		STRING	PowerOn		
-						
-	6	A4, B4, C4, A5, B5, C5	-	-	7/2	M

**Description:** Normal vector programming from software version 3.2

List of identifiers for the normal vector components at the beginning and end of the block.

The rules for axis identifiers described in MD20080 \$MC\_AXCONF\_CHANAX\_NAME\_TAB apply to the selection of identifiers.

The identifiers must be selected so that they do not cause any conflicts with other identifiers (axes, Euler angles, direction vectors, interpolation parameters, intermediate point coordinates).

10640	DIR_VECTOR_NAME_TAB		N01, N09	F2,TE4		
-	Name of direction vectors		STRING	PowerOn		
-						
-	6	A3, B3, C3, AN3, BN3, CN3	-	-	7/2	M

**Description:** List of identifiers for the direction vector components. (A3 to C3)

List of identifiers for the vector components perpendicular to the direction vector (AN3 to CN3)

The rules for axis identifiers described in MD20080 \$MC\_AXCONF\_CHANAX\_NAME\_TAB apply to the selection of identifiers.

The identifiers must be selected so that they do not cause any conflicts with other identifiers (axes, Euler angles, normal vectors, interpolation parameters, intermediate point coordinates).

10642	ROT_VECTOR_NAME_TAB			N01, N09	F2	
-	Name of rotation vectors			STRING	PowerOn	
-						
-	3	A6, B6, C6	-	-	7/2	M

**Description:** List of identifiers for the rotation vector components in taper direction  
 The rules for axis identifiers as described in MD20080  
 \$MC\_AXCONF\_CHANAX\_NAME\_TAB apply to the selection of identifiers.  
 The identifiers must be selected so that they do not cause any conflicts with other identifiers (axes, Euler angles, normal vectors, interpolation parameters, intermediate point coordinates).

10644	INTER_VECTOR_NAME_TAB			N01, N09	F2	
-	Name of intermediate vector components			STRING	PowerOn	
-						
-	3	A7, B7, C7	-	-	7/2	M

**Description:** List of identifiers for the intermediate vector components  
 The rules for axis identifiers described in MD20080  
 \$MC\_AXCONF\_CHANAX\_NAME\_TAB apply to the selection of identifiers.  
 The identifiers must be selected so that they do not cause any conflicts with other identifiers (axes, Euler angles, normal vectors, interpolation parameters, intermediate point coordinates).

10646	ORIENTATION_NAME_TAB			N01, N09	F2	
-	Identifiers for programming a 2nd orientation path			STRING	PowerOn	
-						
-	3	XH, YH, ZH	-	-	7/2	M

**Description:** List of identifiers for programming of the 2nd space curve for tool orientation  
 The rules for axis identifiers as described in MD20080  
 \$MC\_AXCONF\_CHANAX\_NAME\_TAB apply to the selection of identifiers.  
 The identifiers must be selected so that they do not cause any conflicts with other identifiers (axes, Euler angles, normal vectors, interpolation parameters, intermediate point coordinates).

10648	NUTATION_ANGLE_NAME			N01, N09	F2	
-	Name of aperture angle			STRING	PowerOn	
-						
-	-	NUT	-	-	7/2	M

**Description:** Identifier for the opening angle for orientation interpolation  
 The rules for axis identifiers as described in MD20080  
 \$MC\_AXCONF\_CHANAX\_NAME\_TAB apply to the selection of identifiers.  
 The identifiers must be selected so that they do not cause any conflicts with other identifiers (axes, Euler angles, normal vectors, direction vectors, intermediate point coordinates).

10650	IPO_PARAM_NAME_TAB	EXP, N01	K2
-	Name of interpolation parameters	STRING	PowerOn
-			
-	3	I, J, K	-
-			7/2
-			M

**Description:** List of identifiers for the interpolation parameters  
The rules for axis identifiers described in MD20080 \$MC\_AXCONF\_CHANAX\_NAME\_TAB apply to the selection of identifiers.  
The identifiers must be selected so that they do not cause any conflicts with other identifiers (axes, Euler angles, normal vectors, direction vectors, intermediate point coordinates).  
Related to:  
MD10660 \$MN\_INTERMEDIATE\_POINT\_NAME\_TAB  
References: /PA/, Programming Guide: Fundamentals

10652	CONTOUR_DEF_ANGLE_NAME	EXP, N01, N12	FBFA
-	Name of angle for contour definitions	STRING	PowerOn
-			
-	-	ANG	-
-			0/0
-			M

**Description:** Identifier for contour angle  
The identifier must be selected so that no conflict arises with other identifiers (e.g. axes, Euler angles, normal vectors, direction vectors, interpolation point coordinates).

10654	RADIUS_NAME	EXP, N01, N12	FBFA
-	Name of radius for contour definitions	STRING	PowerOn
-			
-	-	RND	-
-			0/0
-			M

**Description:** Identifier for contour radius  
The identifier must be selected so that no conflict arises with other identifiers (e.g. axes, Euler angles, normal vectors, direction vectors, intermediate point coordinates).

10656	CHAMFER_NAME	EXP, N01, N12	FBFA
-	Name of chamfer for contour definitions	STRING	PowerOn
-			
-	-	CHR	-
-			0/0
-			M

**Description:** Identifier for contour chamfer  
The identifier must be selected so that no conflict arises with other identifiers (e.g. axes, Euler angles, normal vectors, direction vectors, intermediate point coordinates).

10660	INTERMEDIATE_POINT_NAME_TAB	EXP, N01	K2
-	Name of interpolation point coordinates for G2/G3	STRING	PowerOn
-			
-	3	I1, J1, K1	-
-			7/2
-			M

**Description:** List of identifiers for the intermediate point coordinates

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The rules for axis identifiers described in MD20080 \$MC\_AXCONF\_CHANAX\_NAME\_TAB apply to the selection of identifiers. The identifiers must be selected so that they do not cause any conflicts with other identifiers (axes, Euler angles, normal vectors, direction vectors, intermediate point coordinates).

Related to:

MD10650 \$MN\_IPO\_PARAM\_NAME\_TAB

References: /PG/, Programming Guide: Fundamentals

10670	STAT_NAME		N01, N09	F2		
-	Name of state information		STRING	PowerOn		
-						
-	-	STAT	-	-	7/2	M

**Description:** Identifier for position information for solving ambiguities in Cartesian PTP travel.  
An identifier must be chosen that does not conflict with other identifiers (e.g. axes, Euler angles, normal vectors, direction vectors, intermediate point coordinates).

10672	TU_NAME		N01, N09	F2		
-	Name of state information of axes		STRING	PowerOn		
-						
-	-	TU	-	-	7/2	M

**Description:** Identifier for position information of axes for solving ambiguities in Cartesian PTP travel.  
An identifier must be chosen that does not conflict with other identifiers (e.g. axes, Euler angles, normal vectors, direction vectors, intermediate point coordinates).

10674	PO_WITHOUT_POLY		N01	F2		
-	Polynomial programming programmable without G function POLY		BOOLEAN	PowerOn		
-						
-	-	FALSE	-	-	7/2	M

**Description:** Until now, the G function POLY has always had to be active during polynomial programming with PO[xx] = (xx), otherwise an alarm was output.  
If MD10674 \$MN\_PO\_WITHOUT\_POLY is set to TRUE, no alarm is output with POLY inactive during polynomial programming. The end point of the polynomial is then approached with the linear interpolation G1.  
There is no polynomial interpolation if POLY is inactive.

10680	MIN_CONTOUR_SAMPLING_TIME		N01, EXP	-		
s	Minimum contour sampling time		DOUBLE	Reset		
-						
840dsl-71	-	0.004	-	-	0/0	M
840dsl-72	-	0.002	-	-	0/0	M
840dsl-73	-	0.0005	-	-	0/0	M

**Description:** Min. possible contour sampling time in seconds. This MD is used to limit the value that can be entered with MD10682 \$MN\_CONTOUR\_SAMPLING\_FACTOR, independently of the current interpolation cycle of the control.



10682	CONTOUR_SAMPLING_FACTOR	N01, EXP		-		
-	Contour sampling factor	DOUBLE		Reset		
-						
-	-	1.0	-	-	1/1	M

**Description:** This factor defines the maximum time interval in which a curved contour is sampled in the interpolator.

The maximum sampling time results from the set interpolation cycle (see MD10071 \$MN\_IPO\_CYCLE\_TIME), the factor set with this data, and the tolerance set for the geometry axes in MD33100 \$MA\_COMPRESS\_POS\_TOL[].

The minimum sampling time cannot be shorter than the time set in MD10680 \$MN\_MIN\_CONTOUR\_SAMPLING\_TIME.

10690	DRAW_POS_TRIGGER_TIME	EXP, N01		-		
s	Trigger time for IPO event 'DRAW_POS'	DOUBLE		NEW CONF		
-						
-	-	0.3	0	30	1/1	M

**Description:** This can be used to set a time within which an IPO event for position output will always be generated. If a value smaller than the current interpolation cycle is entered here, the trigger will only be activated according to the maximum chord length in the case of complex geometries and in the last interpolation cycle in the case of non-complex geometries.

10700	PREPROCESSING_LEVEL	N01, N02		V2,K1		
-	Program preprocessing level	BYTE		PowerOn		
-						
-	-	0x25	-	-	2/2	M

**Description:** Bit 0= 0:  
No preprocessing

Bit 0= 1:  
The call description of the cycles is formed during control power on. All the programs in the directories `_N_CUS_DIR`, `_N_CMA_DIR` and `_N_CST_DIR` can be called in the part program without `EXTERNAL` declaration. If the parameter interface of a cycle is changed in the control, then this change does not become active until after Power On.

Bit 1=1:  
During control power on, all cycles in the directories `_N_CUS_DIR`, `_N_CMA_DIR` and `_N_CST_DIR` are preprocessed to form a process-optimizing compilation. These cycles are then processed more quickly. Changes to the cycle programs do not become active until after the next Power On.

Bit 2=1:  
During control power on, the Siemens cycles in the directory `_N_CST_DIR` are preprocessed to form a process-optimizing compilation (from SW 3.5).

Bit 3=1:  
During control power on, the user cycles in the directory `_N_CUS_DIR` are preprocessed to form a process-optimizing compilation (from SW 3.5).

Bit 4=1:  
Preprocessing the user cycles in the directory `_N_CMA_DIR`

Bit 5=1:  
All files marked with `PREPRO` in the `PROG` statement line are preprocessed (from SW 6.4)

Bit 5=0:

During control power on, all cycles in the directories activated by bits 1 to 4 are preprocessed. This also applies to programs that are not marked with PREPRO.

Bit 6=1:

The compilation is stored in SRAM if there is inadequate space in DRAM (from SW 7.1).

Memory space is required for preprocessing cycles. Better utilization of memory can be achieved by selective setting of the preprocessing:

The runtime-critical cycles are brought together in one directory. The remaining cycles are in the other directory.

References:

/PG/, "Programming Guide Fundamentals" (EXTERNAL declaration)

10702	IGNORE_SINGLEBLOCK_MASK	N01	K1,Z1			
-	Prevents stopping at specific blocks in single block mode	DWORD	PowerOn			
-						
-	-	0	0	0x1FFFF	7/2	M

**Description:**

This machine data prevents stopping at certain blocks with single block.

Single block stop can be prevented with the following bits of the mask:

Bit0 = 1

Means that there is no stop in any internal ASUB block. Exception: The single block stop has been explicitly activated by the SBLON command.

There are three different internal ASUBs that are triggered by different events.

- Repos: In the case of the events: change of operating mode to a manual mode (JOG, JOGREF, etc.) unless MODESWITCH\_MASK is not set, switch skip block on and off, activate machine data, switch-on overstore, axis replacement, sub-routine level cancelation, switch-on single block, switch dry run feedrate on and off, alarm with compensation block.

- Return: Delete distance-to-go, switchover after TEACH-IN, or deselection of MDI with corresponding MODESWITCH\_MASK.

- \_N\_PROG\_EVENT\_SPF: Parameterizing MD 20108 \$MC\_PROG\_EVENT\_MASK parameterizes the events whereby \_N\_PROG\_EVENT\_SPF is executed.

Bit1 = 1

Means that there is no stop in any user ASUB block. Exception: The single block stop has been explicitly activated via the SBLON command.

User ASUBs are linked to an interrupt channel by the part program command SETINT or via the PI- \_N\_ASUP\_. The interrupt channel is then activated via PLC or the high-speed inputs, and the user ASUBs are retracted.

This disables machine data MD20117 \$MC\_IGNORE\_SINGLEBLOCK\_ASUP. The NCK behavior corresponds to the machine data assignment MD20117

\$MC\_IGNORE\_SINGLEBLOCK\_ASUP= FFFFFFFF.

Bit2 = 1

Means that there is no stop in any intermediate block. Intermediate blocks are generated at, among other events, tool change, ADIS and complicated geometry.

Bit3 = 1

Means that there is no stop in the block search pickup block. The block search pickup block is the 1st block that is loaded into the main run at the start after the search target has been found in the program.

Bit4 = 1

Means that there is no stop in the INIT blocks. INIT blocks are generated from reset immediately after a part program start.

Bit5 = 1

Means that there is no stop in any subprogram block with the parameter DISPL-LOF.

Bit6 = 1

Means that there is no stop in any block in which the NCK cannot reorganize. Reorganize is an internal procedure that is needed for mode change after JOG/ JOGREF..., switch skip block on and off, activate machine data, axis replacement, switch on overstore, switch on single block, switch dry run feedrate on and off, subroutine level cancelation, user ASUBs delete distance-to-go, switchover after TEACH-IN. Reorganize is never needed in Reset state.

Example blocks in which reorganize is impossible:

- Tool change
- 1st block after the Repos procedure
- Block after an ASUB from JOG/canceled

Bit7 = 1

Means that there cannot be a stop in any block in which repositioning is impossible.

Reposition is an internal procedure that is needed for mode change after JOG/ JOGREF..., switch skip block on and off, activate machine data, axis replacement, switch on overstore, switch on single block, switch dry run feedrate on and off, subroutine level cancelation, and possibly user ASUBs. Reposition is never needed in Reset state.

Example blocks in which reposition is impossible:

- G33 + blocks in which reorganize is impossible.

Bit8 = 1

Means that there is no stop in a residual block that does not contain traversing information.

Bit9 = 1

Means that there is no stop in a run in/main run synchronization block (e.g. STOPRE, \$Variable) that is repeated because of an interruption with Reorg (e.g. mode change).

Bit10= 1

Means that there is no stop in a "tool selection block". "Tool selection block" only occurs with tool management (magazine management or TMMG) active. This block gives the corresponding tool change command to the PLC.

This block is generally generated by T programming from the part program.

Example block "N1010 T="Drill" M6 D1"

Depending on machine data, the "tool selection block" can be held in the interpolator until the PLC has acknowledged the corresponding tool change (see MD20310 \$MC\_TOOL\_MANAGEMENT\_MASK). However the program status remains in "run".

Bit11= 1

The control has to automatically generate implicit GET blocks for the axis replacement function (axis replacement: 2 or more channels control one axis alternately) if no explicit GET(D) has been programmed and the following block wants to traverse the axis. (The other channel had previously used this axis).

An explicitly programmed GET may appear as follows "getd(x1,y1,z1) or get(x1,y1,z1)".

There is no stop at explicit or implicit GET blocks in the single block with this bit 11.

Bit12= 1

There is no stop in the single block type 2 in the SBLON block.

Bit13= 1

If an axis is pulled out in the middle of a block and possibly assigned to another channel, then there is no stop at the PREMATURE end of this block. This block follows a REPOSA in order to traverse it to the end, there is no stop until this end has been reached.

Bit14=1

In a part program line, in which a substitution subroutine is called due to NC language replacement, only one stop is performed under the condition that the subroutine includes PROC attribute SBLOF. It is irrelevant whether the subroutine is called at block start and/or end or whether it is exited with M17 or RET.

Bit15=1

Means that there is no stop in any user ASUB block. Exception: The single block stop has been explicitly activated via the SBLON command.

There are three different internal ASUBs that are triggered by different events.

- Repos: In the case of the events: change of operating mode to a manual mode (JOG, JOGREF,...) unless MODESWITCH\_MASK is not set, switch skip block on and off, activate machine data, switch-on overstore, axis replacement, subroutine level cancelation, switch-on single block, switch dry run feedrate on and off, alarm with compensation block.

- Return: Delete distance-to-go, switchover after TEACH-IN, or deselection of MDI with corresponding MODESWITCH\_MASK.

Bit16=1

Activating SERUPRO (search run via prog test) prevents stopping at single blocks.

Related to:

MD20117 \$MC\_IGNORE\_SINGLEBLOCK\_ASUP

10704	DRYRUN_MASK			N01	V1	
-	Dry run feedrate activation			BYTE	PowerOn	
-						
-	-	0	0	2	7/2	M

**Description:**

DRYRUN\_MASK == 0

Dryrun can only be switched on or off at the end of the block.

When DRYRUN\_MASK = 1 is set, the dry run feedrate can also be activated during program execution (in the part program block).

NOTICE!

After activating dry run feedrate, the axes are stopped for the duration of the reorganization process.

DRYRUN\_MASK == 2

Dryrun can be switched on or off in every phase and the axes are not stopped.

NOTICE:

However, the function does not become active until a "later" block in the program execution and this is with the next (implicit) StopRe block.

Related to:

SD42100 \$SC\_DRY\_RUN\_FEED

10706	SLASH_MASK			N01	PG,A2	
-	Activation of block skip			BYTE	PowerOn	
-						
-	-	0	0	2	7/2	M

**Description:** If SLASH\_MASK = 0, skip block can only be activated when stopped at the end of the block  
 If SLASH\_MASK = 1, skip block can also be activated during program execution.  
 NOTICE!  
 After activating skip block, the axes are stopped for the duration of the reorganization process.  
 If SLASH\_MASK = 2, skip block can be activated in every phase.  
 Notice!  
 However, the function does not become active until a "later" block in the program execution, and this is with the next (implicit) StopRe block.

10707	PROG_TEST_MASK			N01	K1	
-	Program test mode			DWORD	PowerOn	
-						
-	-	0x11	0	0x1F	7/2	M

**Description:** Bit-coded mask for program test  
 Bit 0 == 1 Program test cannot be deselected in 'Stopped' program status.  
 Bit 1 == 1 Enable to activate the program test using the PI command\_N\_NCKMOD  
 Bit 2 == 1 Activation of program test with accelerated feed in normal program processing  
 Bit 3 == 1 Activation of the program test with accelerated feed in the simulation  
 Bit 4 == 1 Activation of the accelerated program test takes place in synchronized multi-channel mode.  
 Bit 5..31 As yet unused.  
 Program test with normal processing is always activated via the VDI interface.  
 Program test in simulation is always activated via the NCKMode PI.  
 Program test block search is always activated via the Find-Pi

10708	SERUPRO_MASK			N01	K1	
-	Block search modes			DWORD	PowerOn	
-						
-	-	0	0	31	7/2	M

**Description:** Bit-coded mask for block search via program test (abbr. SERUPRO).  
 SERUPRO block search is activated with the PI service \_N\_FINDBL mode parameter == 5.  
 SERUPRO means SEarchRUn by PROgram test; in other words, proceed under program test from start of program to search target. Note: Program test does not move any axes.  
 Bit 0 == 0  
 There is a stop at M0 during the search phase.  
 Bit 0 == 1  
 There is no stop at M0 during the search phase.

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Bit 1 == 0  
 Alarm 16942 cancels the search phase on part programm command START.  
 Bit 1 == 1  
 Alarm 16942 is switched off.  
 NOTICE:  
 A start program command might actually start the other channel!  
 Bit 2 == 0  
 Switches the function "Group Serupro" off  
 Bit 2 == 1  
 Switches the function "Group Serupro" on.  
 "Group-Serupro" enables a search routine in which the start part program command is changed into a search routine for the other channel.  
 Bit 3 == 0  
 Forces all channels that have started SERUPRO to end SERUPRO simultaneously unless they are canceled via Reset or the channel reaches M30 without finding the search target. In other words, all channels that find the search target (including self-acting SERUPRO) terminate SERUPRO simultaneously.  
 Bit 3 == 1  
 Switches this function off  
 Bit 4 == 0  
 Take external override into account in SERUPRO.  
 Bit 4 == 1  
 An external override (sent via PLC signal or MCP) is ignored during SERUPRO.  
 Bit 5 .. 31  
 As yet unused.

10709	PROG_SD_POWERON_INIT_TAB		EXP, N01	K1	
-	Setting data to be initialized		DWORD	PowerOn	
-					
-	30	43200, 43202, 0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/2 M

**Description:** Setting data to be initialized:  
 The values of the programmable SD indicated in this MD are set to their initial values on control power up.  
 Only the setting data listed in the table below, however, can be initialized. If invalid setting data numbers are configured, then the alarm 4009 is output at the next run-up of the control. The alarm shows the index used for configuring the invalid setting data. The alarm can only be eliminated by changing the invalid setting data, i.e. by entering either a valid number or zero!

	(GCODE)
SD42000 \$SC_THREAD_START_ANGLE	SF
SD42010 \$SC_THREAD_RAMP_DISP	DITS/DITE
SD42125 \$SC_SERUPRO_SYNC_MASK	
SD42400 \$SC_PUNCH_DWELLTIME	PDELAYON
SD42402 \$SC_NIBPUNCH_PRE_START_TIME	
SD42404 \$SC_MINTIME_BETWEEN_STROKES	
SD42800 \$SC_SPIND_ASSIGN_TAB	SETMS
SD43200 \$\$SA_SPIND_S	S with G94, G95, G97, G971, G972
SD43202 \$\$SA_SPIND_CONSTCUT_S	S with G96, G961, G962
SD43210 \$\$SA_SPIND_MIN_VELO_G25	G25 S

```

SD43220 $SA_SPIND_MAX_VELO_G26          G26 S
SD43230 $SA_SPIND_MAX_VELO_LIMS        LIMS
SD43235 $SA_SPIND_USER_VELO_LIMIT
SD43300 $SA_ASSIGN_FEED_PER_REV_SOURCE  FPRAON
SD43350 $SA_AA_OFF_LIMIT
SD43420 $SA_WORKAREA_LIMIT_PLUS        G26
SD43430 $SA_WORKAREA_LIMIT_MINUS      G25
SD43600 $SA_IPOBRAKE_BLOCK_EXCHANGE
SD43610 $SA_ADISPOSA_VALUE
SD43700 $SA_OSCILL_REVERSE_POS1       OSP1
SD43710 $SA_OSCILL_REVERSE_POS2       OSP2
SD43720 $SA_OSCILL_DWELL_TIME1        OST1
SD43730 $SA_OSCILL_DWELL_TIME2        OST2
SD43740 $SA_OSCILL_VELO                FA
SD43750 $SA_OSCILL_NUM_SPARK_CYCLES    OSNSC
SD43760 $SA_OSCILL_END_POS             OSE
SD43770 $SA_OSCILL_CTRL_MASK           OSCTRL
SD43780 $SA_OSCILL_IS_ACTIVE           OS
SD43790 $SA_OSCILL_START_POS

```

10710	PROG_SD_RESET_SAVE_TAB	EXP, N01	A3, V1
-	Setting data to be updated	DWORD	PowerOn
-			
-	30	0, 0, 0, 0, 0, 0, 0, 0...	-
			7/2
			M

**Description:**

Setting data to be backed up

The values of the SDs listed in this table are stored in non-volatile memory, i.e. they remain valid after power ON. The setting data whose HMI numbers were entered in the backup list are written into the (buffered) active file system after the description of the part program on reset.

Programmable setting data are:

```

(GCODE)
SD 42000 $SC_THREAD_START_ANGLE        SF
SD 42010: $SC_THREAD_RAMP_DISP          DITS/DITE
SD 42400 $SC_PUNCH_DWELLTIME           PDELAYON
SD 42800 $SC_SPIND_ASSIGN_TAB          SETMS
SD 43200: $SA_SPIND_S                   S with G94,G95,G97,G971,G972
SD 43202: $SA_SPIND_CONSTCUT_S          S with G96,G961,G962
SD 43210 $SA_SPIND_MIN_VELO_G25        G25S
SD 43220 $SA_SPIND_MAX_VELO_G26        G26 S
SD 43230 $SA_SPIND_MAX_VELO_LIMS        LIMS
SD 43300 $SA_ASSIGN_FEED_PER_REV_SOURCE FPRAON
SD 43420 $SA_WORKAREA_LIMIT_PLUS        G26
SD 43430 $SA_WORKAREA_LIMIT_MINUS      G25
SD 43700 $SA_OSCILL_REVERSE_POS1       OSP1
SD 43710 $SA_OSCILL_REVERSE_POS2       OSP2
SD 43720 $SA_OSCILL_DWELL_TIME1        OST1
SD 43730 $SA_OSCILL_DWELL_TIME2        OST2
SD 43740 $SA_OSCILL_VELO                FA
SD 43750 $SA_OSCILL_NUM_SPARK_CYCLES    OSNSC

```

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SD 43760 \$SA\_OSCILL\_END\_POS OSE  
 SD 43770 \$SA\_OSCILL\_CTRL\_MASK OSCTRL  
 SD 43780 \$SA\_OSCILL\_IS\_ACTIVE OS

The values of D43420 \$SA\_WORKAREA\_LIMIT\_PLUS (working area limitation plus) and SD43430 \$SA\_WORKAREA\_LIMIT\_MINUS (working area limitation minus) are to be stored in the buffered RAM after every RESET, M02, M30 or M17.

--> PROG\_SD\_RESET\_SAVE\_TAB[0] = 43420  
 --> PROG\_SD\_RESET\_SAVE\_TAB[1] = 43430

See also: 'REDEF: change attributes of NC language elements', setting data/PRLOC

10711	NC_LANGUAGE_CONFIGURATION	EXP, N01	K1
-	NC language commands of inactive options / functions	DWORD	PowerOn
-			
-	-	0	0
		4	0/0
			M

**Description:**

Manner of handling language commands whose associated option or function has not been activated.

All programmable commands in an NC program or cycle program are language commands. Detailed information is available in the description of the language command STRINGIS.

ValueMeaning

-----  
 0: All language commands are known - especially those whose function has not been activated. That means that all language commands are programmable. Whether the required function is active is not detected until execution. If not, then a specific alarm is generated.  
 Option approved / not approved (for functions without options "Option approved" applies implicitly):  
 -----

-----  
 1: All language commands are known. Language commands with options that have not been approved, are recognized at the beginning of the program interpretation and rejected with alarm 12553 "Option/function inactive".  
 Example:

If the option data for cylinder transformation has not been set, programming of TRACYL will be rejected with alarm 12553.

2: Only those language commands are known that correspond to the current scope of approved NCK software options. This means that options that are not approved are rejected with 12550 "Name not defined or option/function not available". In this case it is not possible to decide whether the relevant command is not known in Siemens NC language in general or whether it is simply not available on this system.  
 Example:

If the option data for cylinder transformation has not been set, programming of TRACYL will be rejected with alarm 12550.

Function active/inactive:  
 -----

3: All language commands are known. Language commands with inactive functions are recognized at the beginning of the program interpretation and rejected with alarm 12553 "Option/function inactive".



Example:

If the option data for cylinder transformation has been set, but transformation has not been activated with MD24100 \$MC\_TRAFO\_TYPE\_1, programming of TRACYL will be rejected with alarm 12553.

4: Only those language commands are known that correspond to the current scope of active NCK software functions. This means that any command regarding inactive functions are rejected with alarm 12550 "Name not defined or option/function not available". In this case it cannot be decided whether the relevant command is not known in the Siemens NC language in general or whether it is simply not available on this system.

Example:

If the option data for cylinder transformation has been set, but transformation has not been activated with MD24100 \$MC\_TRAFO\_TYPE\_1, programming of TRACYL will be rejected with alarm 12550.

Example:

See description for the STRINGIS language command.

10712	NC_USER_CODE_CONF_NAME_TAB		EXP, N01, N12	TE1, B1	
-	List of reconfigured NC codes		STRING	PowerOn	
-					
-	200	...	-	-	2/2 M

**Description:** List of identifiers of the NC codes reconfigured by the user.

The list is to be structured as follows:

Even address: Identifier to be changed

Subsequent odd address: New identifier

The following three types of NC codes can be reconfigured:

1. G codes e.g.: G02, G64, ASPLINE...
2. NC addresses e.g.: RND, CHF, ...
3. Pre-defined subprograms e.g.: CONTPRON, ...

10713	M_NO_FCT_STOPRE		EXP, N12, N07	H2	
-	M function with preprocessing stop		DWORD	PowerOn	
-					
-	15	-1, -1, -1, -1, -1, -1, -1, -1...	-	-	7/2 M

**Description:** The M functions defined by MD10713 \$MN\_M\_NO\_FCT\_STOPRE perform an implicit preprocessing stop.

That is, the interpretation of the next part program line will be stopped until the block with the M function defined in that way has been processed completely

(PLC acknowledgement, motion, etc.).

10714	M_NO_FCT_EOP		EXP, N07	K1, H2	
-	M function for spindle active after reset		DWORD	PowerOn	
-					
-	-	-1	-	-	7/2 M

**Description:** For spindles where a '2' is configured in MD35040 \$MA\_SPIND\_ACTIVE\_AFTER\_RESET, no spindle reset is enabled with this M function when the part program is terminated. The spindle therefore remains active after the end of the part program.

Proposal: M32

Restrictions: see MD10715 \$MN\_M\_NO\_FCT\_CYCLE

Related to:

- MD35040 \$MA\_SPIND\_ACTIVE\_AFTER\_RESET
- MD10714 \$MN\_M\_NO\_FCT\_EOP,
- MD10715 \$MN\_M\_NO\_FCT\_CYCLE,
- MD20094 \$MC\_SPIND\_RIGID\_TAPPING\_M\_NR,
- MD22254 \$MC\_AUXFU\_ASSOC\_M0\_VALUE

For external language mode:

- MD10814 \$MN\_EXTERN\_M\_NO\_MAC\_CYCLE,
- MD10804 \$MN\_EXTERN\_M\_NO\_SET\_INT
- MD10806 \$MN\_EXTERN\_M\_NO\_DISABLE\_INT,
- MD10800 \$MN\_EXTERN\_CHAN\_SYNC\_M\_NO\_MIN,
- MD10802 \$MN\_EXTERN\_CHAN\_SYNC\_M\_NO\_MAX
- MD20095 \$MC\_EXTERN\_RIGID\_TAPPING\_M\_NR

For nibbling:

- MD26008 \$MC\_NIBBLE\_PUNCH\_CODE

10715	M_NO_FCT_CYCLE	EXP, N12, N07	H2,K1
-	M function to be replaced by a subroutine	DWORD	PowerOn
-			
-	30	-1, -1, -1, -1, -1, -1, -1, -1...	7/2 M

**Description:**

M number with which a subprogram is called.  
 The name of the subprogram is stated in MD10716 \$MN\_M\_NO\_FCT\_CYCLE\_NAME[n]. If the M function defined with MD10715 \$MN\_M\_NO\_FCT\_CYCLE[n] is programmed in a part program block, the subprogram defined in MD10716 \$MNM\_NO\_FCT\_CYCLE\_NAME[n] is started at the end of the block. If the M function is programmed again in the subprogram, there is no longer substitution by a subprogram call. MD10715 \$MN\_M\_NO\_FCT\_CYCLE[n] acts both in Siemens mode G290 and in external language mode G291.  
 The subprograms configured with MD10716 \$MN\_M\_NO\_FCT\_CYCLE\_NAME[n] and MD10717 \$MN\_T\_NO\_FCT\_CYCLE\_NAME must not be active simultaneously in one block (line of a part program). This means that no more than one M/T function replacement can be active in any one block. Neither an M98 nor a modal subprogram call can be programmed in a block with the M function replacement. Subprogram return and end of part program are also not permitted. Alarm 14016 is output in the event of a conflict.

Restrictions:

M functions with a fixed meaning and configurable M functions are checked for conflicting settings. A conflict is reported with an alarm.

The following M functions are checked:

- M0 to M5,
- M17, M30,
- M19,
- M40 to M45,
- M function for spindle/axis mode switchover according to MD20094 \$MC\_SPIND\_RIGID\_TAPPING\_M\_NR (default: M70),
- M functions for nibbling/punching as configured in MD26008 \$MC\_NIBBLE\_PUNCH\_CODE if activated by MD26012 \$MC\_PUNCHNIB\_ACTIVATION.
- M19, M96-M99 for applied external language (MD18800 \$MN\_MM\_EXTERN\_LANGUAGE).

Exception: The M function for the tool change defined by MD22560  
\$MC\_TOOL\_CHANGE\_M\_CODE.

10716	M_NO_FCT_CYCLE_NAME	EXP, N12, N07	K1
-	Subroutine name for M function replacement	STRING	PowerOn
-			
-	30	...	-
-			7/2
-			M

**Description:** The machine data contains the name of the cycle. This cycle is called if the M function has been programmed from MD10715 \$MN\_M\_NO\_FCT\_CYCLE.

If the M function is programmed in a motion block, the cycle is executed after the motion.

MD10715 \$MN\_M\_NO\_FCT\_CYCLE is active in both Siemens mode G290 and in external language mode G291.

If a T number is programmed in the call block, then the programmed T number can be polled in the cycle under the variable \$P\_TOOL.

M and T function replacements must not be programmed simultaneously in one block. This means that not more than one M or T function replacement may be active in any one block.

Neither an M98 nor a modal subprogram call may be programmed in a block with M function replacement.

Moreover, neither subprogram return nor part program end are allowed.

Alarm 14016 is issued if there is a conflict.

Related to:

MD10715 \$MN\_M\_NO\_FCT\_CYCLE,  
MD10717 \$MN\_T\_NO\_FCT\_CYCLE\_NAME

10717	T_NO_FCT_CYCLE_NAME	EXP, N12, N07	K1
-	Name of tool-changing cycle for T function replacement	STRING	PowerOn
-			
-	-		7/2
-			M

**Description:** Cycle name for tool change routine on call-up with a T function.

If a T function is programmed in a part program block, the subprogram defined in T\_NO\_FCT\_CYCLE\_NAME is called at the end of the block.

The T number programmed can be polled in the cycle via system variables \$C\_T / \$C\_T\_PROG as a decimal value and via \$C\_TS / \$C\_TS\_PROG as a string (only with tool management). MD10717 \$MN\_T\_NO\_FCT\_CYCLE\_NAME is active both in Siemens mode G290 and in external language mode G291.

MD10716 \$MN\_M\_NO\_FCT\_CYCLE\_NAME and MD10717 \$MN\_T\_NO\_FCT\_CYCLE\_NAME must not be active in one block at the same time, i.e. no more than one M/T function replacement can be active per block. Neither an M98 nor a modal subprogram call can be programmed in a block with a T function replacement. Furthermore, neither subprogram return nor part program end are allowed.

Alarm 14016 is output in the event of a conflict.

Related to:

MD10715 \$MN\_M\_NO\_FCT\_CYCLE,  
MD10716 \$MN\_M\_NO\_FCT\_CYCLE\_NAME

10718	M_NO_FCT_CYCLE_PAR			EXP, N12, N07	K1	
-	M function replacement with parameters			DWORD	PowerOn	
-						
-	-	-1	-	-	7/2	M

**Description:** If an M function replacement was configured with MD10715 \$MN\_M\_NO\_FCT\_CYCLE[n] / MD10716 \$MN\_M\_NO\_FCT\_CYCLE\_NAME[n], a parameter transfer via system variable can be specified for one of these M functions using MD10718 \$MN\_M\_NO\_FCT\_CYCLE\_PAR, in the same way as T function replacement. The parameters stored in the system variables always refer to the part program line where the M function to be replaced was programmed.

The following system variables are available:

\$C\_ME : Address extension of the replaced M function  
 \$C\_T\_PROG : TRUE if address T was programmed  
 \$C\_T : Value of address T ( Integer )  
 \$C\_TE : Address extension of address T  
 \$C\_TS\_PROG : TRUE if address TS was programmed  
 \$C\_TS : Value of address TS (string, only with tool management )  
 \$C\_D\_PROG : TRUE if address D was programmed  
 \$C\_D : Value of address D  
 \$C\_DL\_PROG : TRUE if address DL was programmed  
 \$C\_DL : Value of address DL

10719	T_NO_FCT_CYCLE_MODE			EXP, N12, N07	K1	
-	Setting of T function substitution			DWORD	PowerOn	
-						
-	-	0	0	7	7/2	M

**Description:** This machine data parameterizes the execution of the replacement subprogram for the tool and tool offset selection.

Bit 0 = 0:

D or DL number is transferred to the replacement subprogram (default value)

Bit 0 = 1:

The D or DL number is not transferred to the replacement subprogram if the following conditions are fulfilled: \$MC\_TOOL\_CHANGE\_MODE = 1 Programming D/ DL with T or M function with which the tool change cycle is called, in a part program line.

Bit 1 = 0

Execution of the replacement subprogram at end of block (default value)

Bit 1 = 1

Execution of the replacement subprogram at block start

Bit 2 = 0:

Execution of the replacement subprogram according to the setting of bit 1

Bit 2 = 1:

Execution of the replacement subprogram at block start and at end of block.

10720	OPERATING_MODE_DEFAULT			N01	H2	
-	Setting of mode after power ON			BYTE	PowerOn	
-						
-	10	7, 7, 7, 7, 7, 7, 7...	0	12	7/2	M

**Description:** Default modes of the mode groups after power ON.

If no mode is selected by the PLC, all the channels associated with mode group n are in the mode preset by OPERATING\_MODE\_DEFAULT[ n -1 ] after power ON:

- 0 = Automatic mode
- 1 = Automatic mode, submode REPOS
- 2 = MDI mode
- 3 = MDI mode, submode REPOS
- 4 = MDI mode, submode Teach In
- 5 = MDI mode, submode Reference point approach
- 6 = JOG mode
- 7 = JOG mode, submode Reference point approach
- 8 = AUTO mode, submode Teach In
- 9 = AUTO mode, submode Teach In, submode Reference point approach
- 10 = AUTO mode, submode Teach In, submode Repos
- 11 = MDI mode, submode Teach In, submode Reference point approach
- 12 = MDI mode, submode Teach In, submode Repos

NOTICE! Depending on the machine data MD10721 \$MN\_OPERATING\_MODE\_EXTENDED, the mode set here might not be adopted after power ON

10721	OPERATING_MODE_EXTENDED			N01	H2	
-	Extended setting of mode after power ON			BYTE	PowerOn	
-						
-	10	0, 0, 0, 0, 0, 0, 0, 0...	0	1	7/2	M

**Description:** Extended setting of an operating mode of the operating mode groups after power on:

- 0 = Selection of the operating mode according to MD10720 \$MN\_OPERATING\_MODE\_DEFAULT
- 1 = Selection of the JOG mode if the PLC signal "Retract data available" (DB21-30 DBX377.5) is set in at least one channel of the operating mode group

10722	AXCHANGE_MASK			EXP, N01	K5	
-	Parameterization for axis replacement behavior			DWORD	PowerOn	
-						
-	-	0	0	0xFFFF	7/2	M

**Description:** The axis replacement behavior can be changed with this machine data.

- Bit0 = 1  
Means that there is an automatic axis replacement via channels even if the axis has been brought into a neutral state by Waitp.
- Bit1 = 1  
Means that an AXCTSWE fetches all the axis container axes that can be assigned to the channel by means of implicit GET or GETD, and an axis replacement is not permitted again until after the axis container rotation.
- Bit2 = 1  
Means that, in the case of a GET, an intermediate block without preprocessing stop is generated, and whether a reorganization is needed is not checked until main run.
- Bit3 = 1 means, that the NC carries out an axis replacement request for the VDI interface only for:

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- an axis exclusively controlled by the PLC (\$MA\_BASE\_FUNCTION\_MASK Bit 4 == 1)  
 - a permanently assigned PLC axis (\$MA\_BASE\_FUNCTION\_MASK Bit 5 == 1)  
 For such axes, the VDI interface signal 'Axis replacement possible' is always 1.  
 For all other axes, the VDI interface signal 'Axis replacement possible' is always 0.  
 For permanently assigned PLC axes, an axis replacement is possible only from neutral axis to PLC axis  
 or from PLC axis to neutral axis.  
 Bit3 = 0 means that an axis replacement can be requested by the PLC for each axis.  
 For permanently assigned PLC axes, an axis replacement is only possible from neutral axis to PLC axis  
 or from PLC axis to neutral axis.

10731	JOG_MODE_KEYS_EDGETRIGGRD	EXP, N01	IAF
-	Functioning of the JOG keys	BOOLEAN	PowerOn
-			
-	-	TRUE	-
-	-	-	0/0 M

**Description:** This data determines whether the signals of the VDI interface, which set the JOG mode (progressive INC10000, ... INC1), work as switches (level triggered) or as push buttons (edge triggered). In the latter case, a setting is made in the NCK to retain the function of the key last pressed.

10735	JOG_MODE_MASK	EXP, N01	K1
-	Settings for JOG mode	DWORD	PowerOn
-			
-	-	0	0 0x1ff 7/2 M

**Description:**  
 Bit 0:  
 Enables JOG in automatic.  
 JOG is enabled in automatic when all channels in the mode group are in the RESET state and no channel of the DRF mode group has been selected. The mode group changes internally to JOG with the +/- key and the handwheel, and the axis moves. After the JOG motion has ended, a change back to AUTO is also made internally.  
 Bit 1:  
 Position with AxFrame.  
 The function 'JOG to position' considers all axial frames and, in the case of an axis configured as geometry axis, the tool length offset.  
 Bit 2:  
 Travel in opposite direction.  
 The functions 'JOG to position' and 'Approach machine fixed point manually' allow travel in opposite direction, i.e. away from the specified position.  
 Bit 3:  
 Tool radius offset.  
 MD21020 \$MC\_WORKAREA\_WITH\_TOOL\_RADIUS is active with JOG motions of the geometry axes.  
 Bit 4:  
 Alarm suppression operating range limit in the basic coordinate system in JOG.

Alarms that would be output in JOG when an operating range limit is reached in the basic coordinate system, are suppressed.

Bit 5:

Alarm suppression operating range limit in the workpiece coordinate system in JOG.

Alarms that would be output in JOG when an operating range limit is reached in the workpiece coordinate system, are suppressed.

Bit 6, 7:

JOG of circles:

Bit 7 and bit 6 = 0: traversing the 2nd geometry axis of the active plane to PLUS for radius increase, traversing to MINUS for radius decrease independently of inner or outer machining being active.

Bit 7 = 1 and bit 6 = 0: traversing the 2nd geometry axis of the active plane to PLUS always travels in the direction of the limiting circle. This means that the radius is increased on inner machining and decreased on outer machining.

Bit 7 = 1 and bit 6 = 1: traversing the 2nd geometry axis of the active plane to MINUS always travels in the direction of the limiting circle. This means that the radius is increased on inner machining and decreased on outer machining.

Bit 8:

Bit 8 = 0 If there is a JOG retract movement, the retraction axis can only be jogged in the plus direction.

Bit 8 = 1 If there is a JOG retract movement, the retraction axis can only be jogged in the plus and minus direction.

Bits 9-31:

Currently unassigned.

10750	SPRINT_FORMAT_P_CODE			N12	PGA	
-	String coding of the SPRINT format %P			DWORD	PowerOn	
-						
-	-	0	0	2	7/2	M

**Description:** Description:  
 Specification of the character or punched tape code used to code the string which the SPRINT command generates with format control character %P:  
 0: ASCII  
 1: ISO (DIN66024)  
 2: EIA (RS-244)

10751	SPRINT_FORMAT_P_DECIMAL			N12	PGA	
-	Parameterization of the SPRINT format %P			DWORD	PowerOn	
-						
-	-	0	0	1	7/2	M

**Description:** Description:  
 Parameterization of the format description %n.mP of the SPRINT command  
 Value range:  
 0: The format specification %n.mP generates a string from a transfer parameter of type REAL or INT consisting of an integer with n + m places. The first n places represent the integer places and the following m places the decimal places of the transfer parameter. Missing decimal places are filled with 0. If there are more than m decimal places, the number is rounded. Missing integer places are filled with spaces.

1: The format specification %n.mP generates a string from a transfer parameter of type REAL or INT that consists of a decimal number with up to n integer places, the decimal point and m decimal places, which are filled with 0 or rounded as necessary.

10760	G53_TOOLCORR	N12	FBFA
-	Method of operation of G53, G153 and SUPA	DWORD	NEW CONF
-			
-	-	0	0
-		3	7/2
			M

**Description:** With this MD you define whether tool length offset and tool radius offset are also to be suppressed with language commands G53, G153 and SUPA. The machine data is bit-coded.

Bit 0 = 0: G53, G153 and SUPA cause block-by-block suppression of work offsets. The active tool length offset and tool radius offset remain active.

Bit 0 = 1: G53, G153 and SUPA cause block-by-block suppression of work offsets, active tool length offset and tool radius offset. The tool length behavior can be modified with bit 1.

Bit 1 is only evaluated, if the value of bit 0 is 1.

Bit1 = 0: with bit 0 set, the tool length is always suppressed with G53, G153 and SUPA.

Bit1 = 1: with bit 0 set the tool length is only suppressed with G53, G153 and SUPA, if a cutting edge is not selected in the same block (this can also be the cutting edge that is already active).

10780	UNLOCK_EDIT_MODESWITCH	EXP, N01	-
-	Cancel start disable when editing a part program	BOOLEAN	PowerOn
-			
-	-	FALSE	-
-			0/0
			M

**Description:** To avoid inconsistent states, a start disable is forced in Teach In mode when a part program is edited.

This start disable during editing can be canceled together with the operating algorithms of the individual HMIs by an NC reset or a mode group change.

0: Start disable when editing is also canceled with NC Reset

1: Start disable when editing is also canceled on a mode group change.

10800	EXTERN_CHAN_SYNC_M_NO_MIN	EXP, N12	H2
-	1st M function for channel synchronization	DWORD	PowerOn
-			
-	-	-1	-
-			7/2
			M

**Description:** M number of the first M function which can be used to perform a channel (program) synchronization in ISO2/3 mode.

To avoid conflicts with standard M functions the lowest permissible value is 100. If you enter a value between 0 and 99, alarm 4170 will be issued.

10802	EXTERN_CHAN_SYNC_M_NO_MAX	EXP, N12	H2
-	Last M function for channel synchronization	DWORD	PowerOn
-			
-	-	-1	-
-			7/2
			M

**Description:** M number of the last M function which can be used to perform a channel (program) synchronization in ISO2/3 mode.



In combination with MD10800 \$MN\_EXTERN\_CHAN\_SYNC\_M\_NO\_MIN, the machine data defines an M number range reserved for channel synchronization. This range may be a maximum of 10 times the number of channels as only 10 WAIT marks may be set for each channel.

Alarm 4170 is output if a value is entered between 0 and 99 or less than MD10800 \$MN\_EXTERN\_CHAN\_SYNC\_M\_NO\_MIN.

10804	EXTERN_M_NO_SET_INT	EXP, N12	H2,K1
-	M function to activate ASUB	DWORD	PowerOn
-			
-	-	96	-
-	-	-	7/2
-	-	-	M

**Description:** M function number used to activate an interrupt program (ASUB) in ISO2/3 mode. The interrupt program is always started by the 1st high-speed input of the numerical control.

The M number defined in the machine data replaces M96 in external language mode.

Restrictions: Refer to MD10715 \$MN\_M\_NO\_FCT\_CYCLE

Related to:

MD10714 \$MN\_M\_NO\_FCT\_EOP,  
 MD10715 \$MN\_M\_NO\_FCT\_CYCLE,  
 MD20094 \$MC\_SPIND\_RIGID\_TAPPING\_M\_NR,  
 MD22254 \$MC\_AUXFU\_ASSOC\_MO\_VALUE

For external language mode:

MD10814 \$MN\_EXTERN\_M\_NO\_MAC\_CYCLE,  
 MD10804 \$MN\_EXTERN\_M\_NO\_SET\_INT  
 MD10806 \$MN\_EXTERN\_M\_NO\_DISABLE\_INT,  
 MD10800 \$MN\_EXTERN\_CHAN\_SYNC\_M\_NO\_MIN,  
 MD10802 \$MN\_EXTERN\_CHAN\_SYNC\_M\_NO\_MAX  
 MD20095 \$MC\_EXTERN\_RIGID\_TAPPING\_M\_NR

For nibbling:

\$MC\_NIBBLE\_PUNCH\_CODE

10806	EXTERN_M_NO_DISABLE_INT	EXP, N12	H2,K1
-	M function to deactivate ASUB	DWORD	PowerOn
-			
-	-	97	-
-	-	-	7/2
-	-	-	M

**Description:** M function number used to deactivate an interrupt program (ASUB) in ISO2/3 mode.

The M number defined in the machine data replaces M97 in external language mode.

Restrictions: refer to MD10715 \$MN\_M\_NO\_FCT\_CYCLE

MD10714 \$MN\_M\_NO\_FCT\_EOP,  
 MD10715 \$MN\_M\_NO\_FCT\_CYCLE,  
 MD20094 \$MC\_SPIND\_RIGID\_TAPPING\_M\_NR,  
 MD22254 \$MC\_AUXFU\_ASSOC\_MO\_VALUE

For external language mode:

MD10814 \$MN\_EXTERN\_M\_NO\_MAC\_CYCLE,  
 MD10804 \$MN\_EXTERN\_M\_NO\_SET\_INT  
 MD10806 \$MN\_EXTERN\_M\_NO\_DISABLE\_INT,  
 MD10800 \$MN\_EXTERN\_CHAN\_SYNC\_M\_NO\_MIN,

MD10802 \$MN\_EXTERN\_CHAN\_SYNC\_M\_NO\_MAX  
 MD20095 \$MC\_EXTERN\_RIGID\_TAPPING\_M\_NR  
 For nibbling:  
 MD26008 \$MC\_NIBBLE\_PUNCH\_CODE

10808	EXTERN_INTERRUPT_BITS_M96	EXP, N12	FBFA
-	Activate interrupt program (ASUB)	DWORD	PowerOn
-			
-	0	-	-
		7/2	M

**Description:** Setting the various bits can influence the processing of the interrupt routine activated by M96 P...

Bit 0 = 0,  
 No interrupt program possible, M96/M97 are normal M functions

Bit 0 = 1,  
 Using M96/M97 to activate an interrupt program is allowed

Bit 1 = 0,  
 Continue processing part program at the final position of the next block after the interrupt block

Bit 1 = 1,  
 Continue processing part program from interrupt position

Bit 2 = 0,  
 The interrupt signal immediately interrupts the current block and starts the interrupt routine

Bit 2 = 1,  
 The interrupt routine will not be started until the end of the block

Bit 3 = 0,  
 Interrupt machining cycle at an interrupt signal

Bit 3 = 1,  
 Do not start interrupt program until the end of a machining cycle.

10810	EXTERN_MEAS_G31_P_SIGNAL	EXP, N12	FBFA
-	Config. of measuring inputs for G31 P..	BYTE	PowerOn
-			
-	4	1, 1, 1, 1	0
		3	7/2
			M

**Description:** This machine data defines the assignment of measurement inputs 1 and 2 to the P numbers programmed with G31 P1 (- P4). The machine data is bit-coded. Only bits 0 and 1 are evaluated. For example, if bit 0 = 1 in MD10810 \$MN\_EXTERN\_MEAS\_G31\_P\_SIGNAL[1], the 1st measurement input is activated with G31 P2. If MD10810 \$MN\_EXTERN\_MEAS\_G31\_P\_SIGNAL[3]=2, the 2nd measurement input is activated with G31 P4.

Bit 0: = 0, Do not evaluate measurement input 1 with G31 P1 (- P4)  
 Bit 0: = 1, Activate measurement input 1 with G31 P1 (- P4)  
 Bit 1: = 0, Do not evaluate measurement input 2 with G31 P1 (- P4)  
 Bit 1: = 1, Activate measurement input 2 with G31 P1 (- P4)

10812	EXTERN_DOUBLE_TURRET_ON	EXP, N12	FBFA
-	Double turret with G68	BOOLEAN	PowerOn
-			
-	-	FALSE	-
-	-	-	7/2
-	-	-	M

**Description:** This machine data is used to determine whether double-slide machining (channel synchronization for 1st and 2nd channel) is to be started using G68 or whether the second tool of a double turret (= two closely-linked tools at a distance defined in the MD42162 SC\_EXTERN\_DOUBLE\_TURRET\_DIST) is to be activated.

FALSE:

Channel synchronization for double-slide machining

TRUE:

Load 2nd tool of a double turret (that is, activate

\$SC\_EXTERN\_DOUBLE\_TURRET\_DISTANCE as additive work offset and mirroring around Z axis)

10814	EXTERN_M_NO_MAC_CYCLE	EXP, N12	H2,K1
-	Macro call via M function	DWORD	PowerOn
-			
-	30	-1, -1, -1, -1, -1, -1, -1, -1, -1...	-
-	-	-	7/2
-	-	-	M

**Description:** A macro is called with this M number.

The name of the subprogram is stated in MD10815

\$MN\_EXTERN\_M\_NO\_MAC\_CYCLE\_NAME[n].

If the M function specified with MD10814 \$MN\_EXTERN\_M\_NO\_MAC\_CYCLE[n] is programmed in a part program block, the subprogram defined in MD10815 \$MN\_EXTERN\_M\_NO\_MAC\_CYCLE\_NAME[n] is started. All addresses programmed in the block are written into the corresponding variables.

If the M function is programmed again in the subprogram, there is no longer a replacement by a subprogram call.

MD10814 \$MN\_EXTERN\_M\_NO\_MAC\_CYCLE[n] is only active in the external language mode G291.

The subprograms configured with MD10815 \$MN\_EXTERN\_M\_NO\_MAC\_CYCLE\_NAME[n] must not be active simultaneously in a block (part program line), i.e. only one M function replacement can become active in any one block. Neither an M98 nor a modal subprogram call may be programmed in the block with the M function replacement.

Subprogram return and the part program end are also not permitted. Alarm 14016 is issued in case of a conflict. Restrictions: see MD10715

\$MN\_M\_NO\_FCT\_CYCLE

Related to:

MD10714 \$MN\_M\_NO\_FCT\_EOP,

MD10715 \$MN\_M\_NO\_FCT\_CYCLE,

MD20094 \$MC\_SPIND\_RIGID\_TAPPING\_M\_NR,

MD22254 \$MC\_AUXFU\_ASSOC\_M0\_VALUE

For external language mode:

MD10814 \$MN\_EXTERN\_M\_NO\_MAC\_CYCLE,

MD10804 \$MN\_EXTERN\_M\_NO\_SET\_INT

MD10806 \$MN\_EXTERN\_M\_NO\_DISABLE\_INT,

MD10800 \$MN\_EXTERN\_CHAN\_SYNC\_M\_NO\_MIN,

MD10802 \$MN\_EXTERN\_CHAN\_SYNC\_M\_NO\_MAX

## 1.3 NC machine data

MD20095 \$MC\_EXTERN\_RIGID\_TAPPING\_M\_NR  
 For nibbling: MD26008 \$MC\_NIBBLE\_PUNCH\_CODE

10815	EXTERN_M_NO_MAC_CYCLE_NAME	EXP, N12	H2
-	Name of subroutine for M function macro call	STRING	PowerOn
-			
-	30	...	-
			7/2
			M

**Description:** Name of the subprogram started by a call via the M function defined by MD10814 \$MN\_EXTERN\_M\_NO\_MAC\_CYCLE[n].

10816	EXTERN_G_NO_MAC_CYCLE	EXP, N12	FBFA
-	Macro call via G function	DOUBLE	PowerOn
-			
-	50	-1., -1., -1., -1., -1., -1., -1., -1., -1....	-
			7/2
			M

**Description:** G number for calling a macro.  
 The name of the subprogram is stated in MD10817 \$MN\_EXTERN\_G\_NO\_MAC\_CYCLE\_NAME[n].  
 If the G function specified with MD10816 \$MN\_EXTERN\_G\_NO\_MAC\_CYCLE[n] is programmed in a part program block, the subprogram defined in MD10817 \$MN\_EXTERN\_M\_NO\_MAC\_CYCLE\_NAME[n] is started. All addresses programmed in the block are written in the corresponding \$C\_xx variables.  
 No subprogram call is executed if a subprogram call is already active via an M/G macro or an M replacement. If a standard G function is programmed in this case, this code is executed. Otherwise, alarm 12470 is issued.  
 MD10816 \$MN\_EXTERN\_G\_NO\_MAC\_CYCLE[n] is only active in the external language mode G291.  
 Only a single subprogram call may be included in any one block. This means that only a single M/G function replacement may be programmed in a block, and no additional subprogram (M98) or cycle call may be included in the block. Furthermore, a subprogram return and a part program end are not permitted in the same block.  
 Alarm 14016 is issued in case of a conflict.

10817	EXTERN_G_NO_MAC_CYCLE_NAME	EXP, N12	FBFA
-	Name of subroutine for G function macro call	STRING	PowerOn
-			
-	50	...	-
			7/2
			M

**Description:** Name of the subprogram started by call via the G function defined by MD10816 \$MN\_EXTERN\_G\_NO\_MAC\_CYCLE[n].

10818	EXTERN_INTERRUPT_NUM_ASUP	EXP, N12	FBFA
-	Interrupt number for ASUB start (M96)	BYTE	PowerOn
-			
-	-	1	1
			8
			7/2
			M

**Description:** Number of the interrupt input starting an asynchronous subprogram activated in ISO mode. (M96 <program number>)

10820	EXTERN_INTERRUPT_NUM_RETRAC	EXP, N12	FBFA			
-	Interrupt number for rapid retraction (G10.6)	BYTE	PowerOn			
-						
-	-	2	1	8	7/2	M

**Description:**

Number of the interrupt input triggering rapid retraction to the position programmed with G10.6 in ISO mode.

10830	EXTERN_PRINT_DEVICE	EXP, N12	FBFA			
-	Output device for ISOPRINT	STRING	PowerOn			
-						
-	-		-	-	7/2	M

**Description:** Path of output device for ISOPRINT

10831	EXTERN_PRINT_MODE	EXP, N12	FBFA			
-	Parameterize output device for ISOPRINT	DWORD	PowerOn			
-						
-	-	0	0	63	7/2	M

**Description:**

Parameterize output device for ISOPRINT  
 Bit 0: 0= Synchronous output  
       1= Asynchronous output  
 Bit 1: 0= Exclusive assignment  
       1= Shared assignment  
 Bit 2: Output of DC2 (H12) on opening  
 Bit 3: Output of DC4 (H14) on closing  
 Bit 4: Output string concluded with LF  
 Bit 5: Output string concluded with CR + LF

10850	MM_EXTERN_MAXNUM_OEM_GCODES	EXP, N01, N12	-			
-	Maximum number of OEM G codes	DWORD	PowerOn			
-						
-	-	0	0	1000	1/1	M

**Description:** This machine data is used to define the number of G codes implemented for an external language via an OEM application.

10880	MM_EXTERN_CNC_SYSTEM	N01, N12	FBFA			
-	Definition of the control system to be adapted	DWORD	PowerOn			
-						
-	-	1	1	3	7/2	M

**Description:**

Definition of the external CNC system whose part programs are to be executed on the SINUMERIK control in addition to SINUMERIK code (ISO\_1):  
 1: ISO\_21: System Fanuc0 milling (5.1 and higher)  
 2: ISO\_31: System Fanuc0 turning (P5.2 and higher)  
 3: External language via OEM application (P6.2 and higher)  
 4: ISO\_22: System Fanuc0 Milling (P7 and higher)  
 5: ISO\_32: System Fanuc0 Turning (P7 and higher)

10881	MM_EXTERN_GCODE_SYSTEM			N01, N12	FBFA	
-	ISO_3 Mode: GCodeSystem			DWORD	PowerOn	
-						
-	-	0	0	2	7/2	M

**Description:** Definition of the GCodeSystem to be actively executed in ISO\_3 Mod (turning):  
Value = 0 : ISO\_3: Code system B  
Value = 1 : ISO\_3: Code system A  
Value = 2 : ISO\_3: Code system C

10882	NC_USER_EXTERN_GCODES_TAB			N12	FBFA	
-	List of user-specific G commands of an external NC language			STRING	PowerOn	
-						
-	60	...	-	-	2/2	M

**Description:** List of G commands of external NC languages which have been reconfigured by the user.  
The implemented G commands are to be taken from the current Siemens documentation for this programming language.  
The list is structured as follows:  
Even address: G command to be changed  
Subsequent odd address: New G command  
Only G codes can be reconfigured, e.g.: G20, G71.

10884	EXTERN_FLOATINGPOINT_PROG			N12	FBFA	
-	Evaluation of programmed values without decimal point			BOOLEAN	PowerOn	
-						
-	-	TRUE	-	-	7/2	M

**Description:** This MD defines how programmed values without a decimal point are evaluated:  
0: Values without a decimal point are interpreted in internal units. For example, X1000 = 1 mm (for 0.001 mm input resolution) X1000.0 = 1000 mm  
1: Values without decimal point are interpreted as mm, inch or degrees. For example, X1000 = 1000 mm X1000.0 = 1000 mm  
Related to:  
MD10886 \$MN\_EXTERN\_INCREMENT\_SYSTEM

10886	EXTERN_INCREMENT_SYSTEM			N12	FBFA	
-	Incremental system in external language mode			BOOLEAN	PowerOn	
-						
-	-	FALSE	-	-	7/2	M

**Description:** This machine data is active for external programming languages, that is if MD18800 \$MN\_MM\_EXTERN\_LANGUAGE = 1.  
This machine data specifies which incremental system is active:  
0: Incremental system IS-B = 0.001 mm/degree  
= 0.0001 inch  
1: Incremental system IS-C = 0.0001 mm/degree  
= 0.00001 inch  
Related to:  
MD10884 \$MN\_EXTERN\_FLOATINGPOINT\_PROG

10888	EXTERN_DIGITS_TOOL_NO		N12	FBFA		
-	Digits for T number in ISO mode		BYTE	PowerOn		
-						
-	-	2	0	8	7/2	M

**Description:** This machine data is only active when MD10880 \$MN\_MM\_EXTERN\_CNC\_SYSTEM == 2.  
Number of digits of the tool number in the programmed T word.  
From the programmed T word, the number of leading digits specified in MD10888 \$MN\_EXTERN\_DIGITS\_TOOL\_NO are interpreted as the tool number.  
The following digits address the offset memory.  
Entering a value > 0 in MD \$MN\_EXTERN\_DIGITS\_OFFSET\_NO renders MD \$MN\_EXTERN\_DIGITS\_TOOL\_NO ineffective.  
\$MN\_EXTERN\_DIGITS\_OFFSET\_NO has priority over \$MN\_EXTERN\_DIGITS\_TOOL\_NO.

10889	EXTERN_DIGITS_OFFSET_NO		N12	FBFA		
-	Digits for offset number in ISO mode		BYTE	PowerOn		
-						
-	-	0	0	8	7/2	M

**Description:** This machine data is only active when \$MN\_MM\_EXTERN\_CNC\_SYSTEM == 2.  
Number of digits of the offset number in the programmed T word.  
From the programmed T word, the number of leading digits specified in \$MN\_EXTERN\_DIGITS\_OFFSET\_NO are interpreted as the offset number.  
The following digits address the tool number.

10890	EXTERN_TOOLPROG_MODE		N12	FBFA		
-	Tool change programming for external language		DWORD	PowerOn		
-						
-	-	0x0	-	-	7/2	M

**Description:** Configuration for programming the tool change in an external programming language:  
Bit0=0:  
Only active if MD10880 \$MN\_MM\_EXTERN\_CNC\_SYSTEM =2: The tool number and offset number are programmed in the T word. \$MN\_DIGITS\_TOOLNO defines the number of leading digits that form the tool number.  
Example:  
\$MN\_DIGITS\_TOOLNO = 2  
T=1234 ; Tool number 12,  
; Offset number 34  
Bit0=1:  
Only active if MD10880 \$MN\_MM\_EXTERN\_CNC\_SYSTEM =2: Only the tool number is programmed in the T word. Offset number = Tool number. \$MN\_DIGITS\_TOOLNO is irrelevant.  
Example:  
T=12 ; Tool number 12  
; Offset number 12  
Bit1=0:  
Only active if MD10880 \$MN\_MM\_EXTERN\_CNC\_SYSTEM =2: A leading 0 is added if the number of digits programmed in the T word is the same as that in MD10888 \$MN\_EXTERN\_DIGITS\_TOOL\_NO.

Bit1=1:

Only active if MD10880 \$MN\_MM\_EXTERN\_CNC\_SYSTEM =2: If the number of digits programmed in the T word is equal to the number of digits defined in MD10888 \$MN\_EXTERN\_DIGITS\_TOOL\_NO, the programmed number is both the offset number and the tool number

Bit2=0:

Only active if MD10880 \$MN\_MM\_EXTERN\_CNC\_SYSTEM =2: ISO T offset selection only with D (Siemens cutting edge number)

Bit2=1:

Only active if MD10880 \$MN\_MM\_EXTERN\_CNC\_SYSTEM =2: ISO T offset selection only with H (\$TC\_DPH[t,d])

Bit6=0:

The offset memories for the tool length and tool radius are linked so that tool length and tool radius are always selected when either H or D is programmed.

Bit6=1:

The offset memories for the tool length and tool radius are not linked, so that the number of the tool length value is selected when H is programmed, and the number of the tool radius value is selected when D is programmed.

Bit7=0:

Only active if \$MN\_MM\_EXTERN\_CNC\_SYSTEM =2. If T substitution ( \$MN\_T\_NO\_FCT\_CYCLE\_NAME ) is active, the H number programmed in the T word is transferred to the cycle in the variable \$C\_D.

Bit7=1:

Only active if \$MN\_MM\_EXTERN\_CNC\_SYSTEM =2. If T substitution ( \$MN\_T\_NO\_FCT\_CYCLE\_NAME ) is active, the Siemens cutting edge number D corresponding to the H number programmed in the T word is transferred to the cycle in the variable \$C\_D.

10900	INDEX_AX_LENGTH_POS_TAB_1			N09	T1	
-	Number of positions for indexing axis table 1			DWORD	Reset	
-						
-	-	0	0	60	7/2	M

**Description:**

The indexing position table is used to assign the axis positions in the valid unit of measurement (mm, inches or degrees) to the indexing positions [n] on the indexing axis. The number of indexing positions used in table 1 is defined by MD10900 \$MN\_INDEX\_AX\_LENGTH\_POS\_TAB\_1.

These indexing positions must be assigned valid values in table 1. Any indexing positions in the table above the number specified in the machine data are ignored. Up to 60 indexing positions (0 to 59) can be entered in the table. Table length = 0 means that the table is not evaluated. If the length is not equal to 0, then the table must be assigned to an axis with MD30500 \$MA\_INDEX\_AX\_ASSIGN\_POS\_TAB.

If the indexing axis is defined as a rotary axis (MD30300 \$MA\_IS\_ROT\_AX = "1") with modulo 360° (MD30310 \$MA\_ROT\_IS\_MODULO = "1"), the machine data defines the last indexing position after which, with a further traversing movement in the positive direction, the indexing positions begin again at 1.

Special cases:

Alarm 17090 "Value violates upper limit" if values over 60 are entered in MD10900 \$MN\_INDEX\_AX\_LENGTH\_POS\_TAB\_1.



Related to:

MD30500 \$MA\_INDEX\_AX\_ASSIGN\_POS\_TAB (axis is an indexing axis)

MD10910 \$MN\_INDEX\_AX\_POS\_TAB\_1 (indexing position table 1)

MD30300 \$MA\_IS\_ROT\_AX (rotary axis)

MD30310 \$MA\_ROT\_IS\_MODULO (modulo conversion for rotary axis)

10910	INDEX_AX_POS_TAB_1			N09	T1	
mm/inch, degrees	Indexing position table 1			DOUBLE	Reset	
-						
-	60	0., 0., 0., 0., 0., 0., 0., 0...	-	-	7/2	M

**Description:**

The indexing position table is used to assign the axis positions in the valid unit of measurement (mm, inches or degrees) to the indexing positions [n] on the indexing axis.

[n] = indexing for the entry of the indexing positions in the indexing position table.

Range: 0 y n x 59, where 0 corresponds to the 1st indexing position and 59 to the 60th indexing position.

Note.

Programming with the absolute indexing position (e.g. CAC) starts with indexing position 1. This corresponds to the indexing position with indexing n = 0 in the indexing position table.

The following should be noted when entering the indexing positions:

- Up to 60 different indexing positions can be stored in the table.
- The 1st entry in the table corresponds to indexing position 1; the nth entry corresponds to indexing position n.
- The indexing positions must be entered in the table in ascending order (starting with the negative and going to the positive traversing range) with no gaps between the entries. Consecutive position values must not be identical.
- If the indexing axis is defined as a rotary axis (MD30300 \$MA\_IS\_ROT\_AX = "1") with modulo 360° (MD30310 \$MA\_ROT\_IS\_MODULO = "1"), then the position values are limited to a range of 0° x pos. < 360°.

The number of indexing positions used in the table is defined by MD10900 \$MN\_INDEX\_AX\_LENGTH\_POS\_TAB\_1.

Entering the value 1 in axial MD30500 \$MA\_INDEX\_AX\_ASSIGN\_POS\_TAB assigns indexing position table 1 to the current axis.

Special cases:

Alarm 17020 "Illegal array index" if over 60 positions are entered in the table.

Related to:

MD30500 \$MA\_INDEX\_AX\_ASSIGN\_POS\_TAB (axis is an indexing axis)

MD10900 \$MN\_INDEX\_AX\_LENGTH\_POS\_TAB\_1 (number of indexing positions used in table 1)

MD30300 \$MA\_IS\_ROT\_AX (rotary axis)

MD30310 \$MA\_ROT\_IS\_MODULO (modulo conversion for rotary axis)

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10920	INDEX_AX_LENGTH_POS_TAB_2			N09	T1	
-	Number of positions for indexing axis table 2			DWORD	Reset	
-						
-	-	0	0	60	7/2	M

**Description:**

The indexing position table is used to assign the axis positions in the valid unit of measurement (mm, inches or degrees) to the indexing positions [n] on the indexing axis. The number of indexing positions used in table 2 is defined by MD10920 \$MN\_INDEX\_AX\_LENGTH\_POS\_TAB\_2.

These indexing positions in table 2 must be assigned valid values. Any indexing positions in the table above the number specified in the machine data are ignored.

Up to 60 indexing positions (0 to 59) can be entered in the table.

Table length = 0 means that the table is not evaluated. If the length is not equal to 0, the table must be assigned to an axis with MD30500 \$MA\_INDEX\_AX\_ASSIGN\_POS\_TAB.

If the indexing axis is defined as a rotary axis (MD30300 \$MA\_IS\_ROT\_AX = "1") with modulo 360° (MD30310 \$MA\_ROT\_IS\_MODULO = "1"), the machine data defines the last indexing position after which, with a further traversing movement in the positive direction, the indexing positions begin again at 1. Not relevant for tool magazines (revolvers, chain magazines)

Special cases:

Alarm 17090 "Value violates upper limit" if a value over 60 is entered in MD10920 \$MN\_INDEX\_AX\_LENGTH\_POS\_TAB\_2.

Related to:

MD30500 \$MA\_INDEX\_AX\_ASSIGN\_POS\_TAB (axis is an indexing axis)

MD10930 \$MN\_INDEX\_AX\_POS\_TAB\_2 (indexing position table 2)

MD30300 \$MA\_IS\_ROT\_AX (rotary axis)

MD30310 \$MA\_ROT\_IS\_MODULO (modulo conversion for rotary axis)

10930	INDEX_AX_POS_TAB_2			N09	T1	
mm/inch, degrees	Indexing position table 2			DOUBLE	Reset	
-						
-	60	0., 0., 0., 0., 0., 0., 0., 0....	-	-	7/2	M

**Description:**

The indexing position table is used to assign the axis positions in the valid unit of measurement (mm, inches or degrees) to the indexing positions [n] on the indexing axis.

[n] = indexing for the entry of the indexing positions in the indexing position table.

Range: 0 y n x 59, where 0 corresponds to the 1st indexing position and 59 to the 60th indexing position.

Note:

Programming with the absolute indexing position (e.g. CAC) starts with indexing position 1. This corresponds to the indexing position with indexing n = 0 in the table.

The following should be noted when entering the indexing positions:

- Up to 60 different indexing positions can be stored in the table.
- The 1st entry in the table corresponds to indexing position 1; the nth entry corresponds to indexing position n.

- The indexing positions should be entered in the table in ascending order (starting with the negative and going to the positive traversing range) with no gaps between the entries. Consecutive position values must not be identical.
- If the indexing axis is defined as a rotary axis (MD30300 \$MA\_IS\_ROT\_AX = "1") with modulo 360° (MD30310 \$MA\_ROT\_IS\_MODULO = "1"), then the position values are limited to a range of 0° x pos. < 360°.

The number of indexing positions used in the table is defined by MD10920 \$MN\_INDEX\_AX\_LENGTH\_POS\_TAB\_2.

Entering the value 1 in axial MD30500 \$MA\_INDEX\_AX\_ASSIGN\_POS\_TAB assigns indexing position table 1 to the current axis.

Special cases:

Alarm 17020 "Illegal array index" if over 60 positions are entered in the table.

Related to:

MD30500 \$MA\_INDEX\_AX\_ASSIGN\_POS\_TAB (axis is an indexing axis)

MD10920 \$MN\_INDEX\_AX\_LENGTH\_POS\_TAB\_2 (number of indexing positions used in table 2)

MD30300 \$MA\_IS\_ROT\_AX (rotary axis)

MD30310 \$MA\_ROT\_IS\_MODULO (modulo conversion for rotary axis)

10940	INDEX_AX_MODE			EXP	T1	
-	Settings for indexing position			DWORD	PowerOn	
-						
-	-	0	0	1	7/2	M

**Description:** Affects the display of indexing positions (AA\_ACT\_INDEX\_AX\_POS\_NO and aaActIndexAxPosNo).

Bit 0 = 0:  
Indexing position display changes on reaching/passing the indexing position (indexing range lies between the indexing positions, compatible behavior).

Bit 0 = 1:  
Indexing position display changes on passing the half indexing axis position (indexing range lies quasi symmetrically round the indexing position)

11100	AUXFU_MAXNUM_GROUP_ASSIGN			N01, N07, N02	H2	
-	Number of auxiliary functions distr. amongst aux. fct. groups			DWORD	PowerOn	
-						
-	-	1	1	255	7/2	M

**Description:** The maximum number of auxiliary functions that can be assigned to a group by AUXFU\_ASSIGN\_TYPE, AUXFU\_ASSIGN\_EXTENTION, AUXFU\_ASSIGN\_VALUE and AUXFU\_ASSIGN\_GROUP.

This number includes only the user-defined auxiliary functions, not the pre-defined auxiliary functions.

Related to:  
MD22010 \$MC\_AUXFU\_ASSIGN\_TYPE [n].

11110	AUXFU_GROUP_SPEC			N07	H2	
-	Auxiliary function group specification			DWORD	PowerOn	
-						
-	168	0x81, 0x21, 0x41, 0x41, 0x41, 0x41, 0x41...	-	-	7/2	M

**Description:** Defines the output options for the auxiliary functions belonging to a group. However, the output option of an auxiliary function configured by MD22080 \$MC\_AUXFU\_PREDEF\_SPEC[ preIndex ] or MD22035 \$MC\_AUXFU\_ASSIGN\_SPEC[ auxIndex ] has a higher priority.

Bit 0=1"Normal" acknowledgement after an OB1 cycle  
 Bit 1=1"Quick" acknowledgement with OB40  
 Bit 2=1No predefined auxiliary function  
 Bit 3=1No output to PLC  
 Bit 4=1Spindle response after acknowledgement by the PLC  
 Bit 5=1Output prior to motion  
 Bit 6=1Output during motion  
 Bit 7=1Output at end of block  
 Bit 8=1No output after block search types 1, 2, 4  
 Bit 9=1Collection during block search type 5 (SERUPRO)  
 Bit 10 = 1 No output during block search type 5 (SERUPRO)  
 Bit 11 = 1Cross-channel auxiliary function (SERUPRO)  
 Bit 12 = 1Output via synchronized action  
 Bit 13 = 1 Implicit auxiliary function  
 Bit 14 = 1 Active M01  
 Bit 15 = 1 No output during running-in test  
 Bit 16 = 1 Nibbling off  
 Bit 17 = 1 Nibbling on  
 Bit 18 = 1 Nibbling

The MD must be defined for each existing auxiliary function group.  
 The index [n] corresponds to the auxiliary function group: 0...63  
 The assignment of individual auxiliary functions to specific groups is defined in channel-specific machine data ( AUXFU\_PREDEF\_TYPE, AUXFU\_PREDEF\_EXTENTION, AUXFU\_PREDEF\_VALUE, AUXFU\_PREDEF\_GROUP, AUXFU\_ASSIGN\_TYPE, AUXFU\_ASSIGN\_EXTENTION, AUXFU\_ASSIGN\_VALUE, AUXFU\_ASSIGN\_GROUP ).  
 M0, M1, M2, M17 and M30 are assigned to group 1 by default.  
 The specification of this group ( 0x81: output duration 1 OB1 pass, output at end of block ) must not be changed.  
 All spindle-specific auxiliary functions ( M3, M4, M5, M19, M70 ) are assigned to group 2 by default.  
 If several auxiliary functions with different output types ( before / during / at end of motion ) are programmed in one motion block, then the output of the individual auxiliary functions occurs in accordance with their output types.  
 All auxiliary functions are output simultaneously in a block without motion.  
 Default setting:  
 AUXFU\_GROUP\_SPEC[0]=81H  
 AUXFU\_GROUP\_SPEC[1]=21H  
 AUXFU\_GROUP\_SPEC[2]=41H

...  
 AUXFU\_GROUP\_SPEC [n] =41H

11120	LUD_EXTENDED_SCOPE	N01	PG
-	Function "program global user data (PUD)" is active	BOOLEAN	PowerOn
-			
-	-	FALSE	-
-			7/2
			M

**Description:** Activate function "Program-global user data (PUD)":  
 MD = 0: User data of the main program level are only active on this level.  
 MD = 1: User data of the main program level are also visible in the subprogram levels.

11140	GUD_AREA_SAVE_TAB	N01	-
-	Additional saving for GUD modules	DWORD	Immediately
-			
-	9	0, 0, 0, 0, 0, 0, 0, 0, 0...	-
-			7/2
			M

**Description:** This data indicates in which area the contents of the GUD module are also saved.

MD11140 \$MN\_GUD\_AREA\_SAVE\_TAB [0] : SGUD\_DEF  
 MD11140 \$MN\_GUD\_AREA\_SAVE\_TAB [1] : MGUD\_DEF  
 MD11140 \$MN\_GUD\_AREA\_SAVE\_TAB [2] : UGUD\_DEF  
 MD11140 \$MN\_GUD\_AREA\_SAVE\_TAB [3] : GUD4\_DEF  
 MD11140 \$MN\_GUD\_AREA\_SAVE\_TAB [4] : GUD5\_DEF  
 MD11140 \$MN\_GUD\_AREA\_SAVE\_TAB [5] : GUD6\_DEF  
 MD11140 \$MN\_GUD\_AREA\_SAVE\_TAB [6] : GUD7\_DEF  
 MD11140 \$MN\_GUD\_AREA\_SAVE\_TAB [7] : GUD8\_DEF  
 MD11140 \$MN\_GUD\_AREA\_SAVE\_TAB [8] : GUD9\_DEF  
 BitNo. Hexadec. Meaning when bit is set  
 Value  
 0 (LSB) 0x00000001 TOA area

11160	ACCESS_EXEC_CST	N01	-
-	Execution right for /_N_CST_DIR	BYTE	PowerOn
-			
-	-	7	-
-			7/2
			M

**Description:** Execution right assigned to the program stored in directory /\_N\_CST\_DIR :  
 Value 0: Siemens password  
 Value 1: Machine OEM password  
 Value 2: Password of setup engineer, service  
 Value 3: End user password  
 Value 4: Keyswitch position 3  
 Value 5: Keyswitch position 2  
 Value 6: Keyswitch position 1  
 Value 7: Keyswitch position 0  
 Machine data can only be written with values 0 and 1, and with the corresponding password also active.

11161	ACCESS_EXEC_CMA	N01	-
-	Execution right for /_N_CMA_DIR	BYTE	PowerOn
-			
-	-	7	-
-	-	-	-
-	-	-	7/2
-	-	-	M

**Description:** Execution right assigned to the programs stored in directory /\_N\_CMA\_DIR :

Value 0: Siemens password  
Value 1: Machine OEM password  
Value 2: Password of setup engineer, service  
Value 3: End user password  
Value 4: Keyswitch position 3  
Value 5: Keyswitch position 2  
Value 6: Keyswitch position 1  
Value 7: Keyswitch position 0

Machine data can only be written with values 0 and 1, and with the corresponding password also active.

11162	ACCESS_EXEC_CUS	N01	-
-	Execution right for /_N_CUS_DIR	BYTE	PowerOn
-			
-	-	7	-
-	-	-	-
-	-	-	7/3
-	-	-	M

**Description:** Execution right assigned to the programs stored in directory /\_N\_CUS\_DIR :

Value 0: Siemens password  
Value 1: Machine OEM password  
Value 2: Password of setup engineer, service  
Value 3: End user password  
Value 4: Keyswitch position 3  
Value 5: Keyswitch position 2  
Value 6: Keyswitch position 1  
Value 7: Keyswitch position 0

Machine data can only be written with values 0, 1 and 2, and with the corresponding password also active.

11165	ACCESS_WRITE_CST	N01	-
-	Write protection for directory /_N_CST_DIR	DWORD	PowerOn
-			
-	-	-1	-
-	-	-	-
-	-	-	7/2
-	-	-	M

**Description:** Set write protection for cycle directory /\_N\_CST\_DIR:  
Assigned to the programs:

Value -1: Keep the value currently set  
Value 0: Siemens password  
Value 1: Machine OEM password  
Value 2: Password of setup engineer, service  
Value 3: End user password  
Value 4: Keyswitch position 3  
Value 5: Keyswitch position 2  
Value 6: Keyswitch position 1  
Value 7: Keyswitch position 0

The machine data can only be written with values 0 and 1, and with the corresponding password also active.

11166	ACCESS_WRITE_CMA		N01	-		
-	Write protection for directory /_N_CMA_DIR		DWORD	PowerOn		
-						
-	-	-1	-	-	7/2	M

**Description:** Set write protection for cycle directory /\_N\_CMA\_DIR:  
Assigned to the programs:  
Value -1: Keep the value currently set  
Value 0: Siemens password  
Value 1: Machine OEM password  
Value 2: Password of setup engineer, service  
Value 3: End user password  
Value 4: Keyswitch position 3  
Value 5: Keyswitch position 2  
Value 6: Keyswitch position 1  
Value 7: Keyswitch position 0  
The machine data can only be written with values 0 and 1, and with the corresponding password also active.

11167	ACCESS_WRITE_CUS		N01	-		
-	Write protection for directory /_N_CUS_DIR		DWORD	PowerOn		
-						
-	-	-1	-	-	7/3	M

**Description:** Set write protection for cycle directory /\_N\_CUS\_DIR:  
Assigned to the programs:  
Value -1: Keep the value currently set  
Value 0: Siemens password  
Value 1: Machine OEM password  
Value 2: Password of setup engineer, service  
Value 3: End user password  
Value 4: Keyswitch position 3  
Value 5: Keyswitch position 2  
Value 6: Keyswitch position 1  
Value 7: Keyswitch position 0  
The machine data can only be written with values 0, 1 and 2, and with the corresponding password also active.

11170	ACCESS_WRITE_SACCESS		N01	-		
-	Write protection for _N_SACCESS_DEF		BYTE	PowerOn		
-						
-	-	7	-	-	7/2	M

**Description:** Set write protection for definition file /\_N\_DEF\_DIR/\_N\_SACCESS\_DEF:  
Value 0: Siemens password  
Value 1: Machine OEM password  
Value 2: Password of setup engineer, service  
Value 3: End user password  
Value 4: Keyswitch position 3

Value 5: Keyswitch position 2  
 Value 6: Keyswitch position 1  
 Value 7: Keyswitch position 0

The machine data can only be written with values 0 and 1, and with the corresponding password also active.

11171	ACCESS_WRITE_MACCESS	N01	-
-	Write protection for _N_MACCESS_DEF	BYTE	PowerOn
-			
-	-	7	-
-	-	-	-
-	-	-	7/2
-	-	-	M

**Description:** Set write protection for definition file /\_N\_DEF\_DIR/\_N\_SACCESS\_DEF:  
 Value 0: Siemens password  
 Value 1: Machine OEM password  
 Value 2: Password of setup engineer, service  
 Value 3: End user password  
 Value 4: Keyswitch position 3  
 Value 5: Keyswitch position 2  
 Value 6: Keyswitch position 1  
 Value 7: Keyswitch position 0  
 The machine data can only be written with values 0 and 1, and with the corresponding password also active.

11172	ACCESS_WRITE_UACCESS	N01	-
-	Write protection for _N_UACCESS_DEF	BYTE	PowerOn
-			
-	-	7	-
-	-	-	-
-	-	-	7/3
-	-	-	M

**Description:** Set write protection for definition file /\_N\_DEF\_DIR/\_N\_UACCESS\_DEF:  
 Value 0: Siemens password  
 Value 1: Machine OEM password  
 Value 2: Password of setup engineer, service  
 Value 3: End user password  
 Value 4: Keyswitch position 3  
 Value 5: Keyswitch position 2  
 Value 6: Keyswitch position 1  
 Value 7: Keyswitch position 0  
 The machine data can only be written with values 0, 1 and 2, and with the corresponding password also active.

11200	INIT_MD	EXP, N01	IAF, IAD, IA
-	Standard machine data loaded at next Power On	BYTE	PowerOn
-			
-	-	0	-
-	-	-	-
-	-	-	7/2
-	-	-	M

**Description:** A power on must be triggered after setting MD11200 \$MN\_INIT\_MD. The function is executed and the MD reset to "0" at power on.  
 Meaning of the input:  
 Bit 0 set:  
 All machine data (with the exception of the memory-configuring data) will be overwritten with the compiled values at the next NCK power on.



Bit 1 set:

All memory-configuring machine data will be overwritten with the compiled values at the next NCK power on.

Bit 2 set:

The OEM machine data and the SIEMENS cycle machine data brought in by compile cycles will be deleted from the buffered memory at the next power on.

Bit 3 set:

All setting data will be overwritten with the compiled values at the next power on.

Bit 4 set:

All option data will be overwritten with the compiled values at the next power on.

INIT\_MD is automatically set to 0 at power on.

Memory configuring MDs are described in:

References: /IAD/, Installation and Setup Guide, Memory Configuration

- MD10010 \$MN\_ASSIGN\_CHAN\_TO\_MODE\_GROUP
- All machine data starting with "MM\_"

MD 18000 - 18999 (general MD)

MD 28000 - 28999 (channel-specific MD)

MD 38000 - 38999 (axis-specific MD)

11202	MD_MODE_MASK	EXP, N01	IA
-	Behavior of machine data changes	BYTE	PowerOn
-			
-	-	0	-
-	-	-	-
-	-	7/2	M

**Description:**

Behavior of machine data changes

Bit 0 (LSB): When configuring linear/rotary axes, do not load initial values for axis type-dependent MDs

Due to the existence of one plausible default value each for a linear axis or rotary axis, axial machine data can facilitate commissioning for the user. With the switchover process (Lin -> Rot, or Rot -> Lin), the respectively configured default values become active as actual values at the next warm restart of the controller.

11210	UPLOAD_MD_CHANGES_ONLY	N01, N05	IAD
-	Machine data backup of changed machine data only	BYTE	Immediately
-			
-	-	0xFF	-
-	-	-	-
-	-	7/3	M

**Description:**

Either all data or only those data which differ from the default setting can be set to be output when creating standard archives (ARC) and copying 'NC active data'.

Bit0(LSB) Effectiveness of the differential upload with INI/TEA files

0: All data are output

1: Only those MDs which have changed in comparison to the compiled values are output

Bit1 is reserved and acts like bit 0

Bit2 Change to an array element

0: Complete array is output

1: Only those elements of an array which have changed are output

Bit3 R variables (only for INI files)

0: All R variables are output

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1: Only those R variables not equal to '0' are output  
 Bit4 Frames (only for INI files)  
 0: All frames are output  
 1: Only those frames which are not zero frames are output.  
 Bit5 Tool data (cutting edge parameters) (only for INI files)  
 0: All tool data are output  
 1: Only those tool data not equal to '0' are output.  
 Bit6 Buffered system variables (\$AC\_MARKER[], \$AC\_PARAM[] only for INI files)  
 0: All system variables are output  
 1: Only those system variables not equal to '0' are output  
 Bit7 Synchronized actions GUD (for INI files only)  
 0: All Syna GUD are output  
 1: Only those Syna GUD not equal to '0' are output  
 Active: The change in the data becomes active on the start of the upload for the next range.  
 The settings are only effective if the following applies  
 \$MN\_UPLOAD\_CHANGES\_ONLY=FALSE

11212	UPLOAD_CHANGES_ONLY		N01, N05	IAD
-	Data backup type for an active file system.		BOOLEAN	Immediately
-				
-	-	TRUE	-	7/3 M

**Description:** Only those values of the selected file of the active file system that deviate from the default settings are backed up.  
 TRUE = Only the values of the selected file of the active file system that deviate from the standard setting are backed up. (differential data backup)  
 The value of \$MN\_UPLOAD\_MD\_CHANGES\_ONLY then has no effect.  
 FALSE = All values of the selected file of the active file system are backed up.  
 Same meaning as \$MN\_UPLOAD\_MD\_CHANGES\_ONLY=0.  
 However, if \$MN\_UPLOAD\_MD\_CHANGES\_ONLY is not equal to 0, this setting is effective.

11220	INI_FILE_MODE		N01, N05	G2
-	Error response to INI file errors		BYTE	Reset
-				
-	-	1	0	2 7/2 M

**Description:** If, while reading machine data files (INI files) into controls, data are read in

- that are faulty or
- do not agree with the check sum

then alarms are generated and the reading in may be canceled. The following control behaviors can be selected via machine data settings:

0: Output of an alarm, cancelation on detection of 1st error. (As SW versions 1 and 2).  
 1: Output of an alarm, continuation of execution. An alarm with the number of errors is output at the end of execution.

2: Execution continues despite possible errors. An alarm with the number of errors is output at the end of execution.

11230	MD_FILE_STYLE		N01, N05	IAD		
-	Structure of machine data backup files		BYTE	Immediately		
LINK						
-	-	0x3	-	-	7/3	M

**Description:** Appearance of a machine data file at 'upload'

Bit 0 (LSB): Line check sum is generated

Bit 1:  
MD numbers are generated

Bit 2:  
Channel axis name as field index with axis-MD in the TEA file

Bit 3:  
With an NCU-link, the MDs of the LINK axes are also output.

Bit 4:  
All local axes are output (even when they are not activated by MD20070 \$MC\_AXCONF\_MACHAX\_USED)

Active:  
The change in the data becomes active on the start of the upload for the next area.

Default setting:  
The line check sums and MD numbers are generated, but not channel names as field index with axis-MD.

11250	PROFIBUS_SHUTDOWN_TYPE		EXP, N01	G3, FBU		
-	PROFIBUS/PROFINET shutdown handling		BYTE	PowerOn		
-						
-	-	0	0	2	7/2	M

**Description:** For PROFIBUS/PROFINET only:  
Handling of PROFIBUS/PROFINET when shutting down NCK (NCK reset)

Value 0:  
The bus is shut down directly from cyclic operation, without 'prewarning'

Value 1:  
When shutting down NCK, the bus is changed to the CLEAR state for at least 20 cycles. Then, it is shut down. If this is not possible on the hardware side, the procedure described for value 2 is used instead.

Value 2:  
When shutting down NCK, the bus is changed to a state where all drives are sent a zero word as control word1 and control word2 (pseudoclear) for at least 20 cycles. The bus itself remains in the Operate status.

11280	WPD_INI_MODE		N01	IAD		
-	Handling of INI files in workpiece directory		BYTE	PowerOn		
-						
-	-	0	0	1	7/2	M

**Description:** Processing mode of INI files in the workpiece directory:

Value = 0:  
An INI file, `_N_werkstück_INI`, stored in the workpiece directory is executed on the first NC start after workpiece selection.

1.3 NC machine data

Value = 1:

INI files with the names of the selected part program and extensions are executed on the first NC start after workpiece selection

- SEA,
- GUD,
- RPA,
- UFR,
- PRO,
- TOA,
- TMA and
- CEC

11285	MACH_MODEL_MODE	EXP	IAD
-	Type of file with machine model	BYTE	Immediately
-			
-	-	0	0
		1	3/3
			M

**Description:** If 3D protection zones have been defined, creation of a machine model can be requested with this machine data.  
 Value 0: No model is created.  
 Value 1: After each change (including activation) of the 3D protection zones, a machine model is created in user directory /\_N\_VRML\_DIR with the name \_N\_VRMLMODEL\_WRL.

11294	SIEM_TRACEFILES_CONFIG	EXP	-
-	Configuration of the SIEM* trace file	DWORD	PowerOn
-			
-	-	0	-
			2/2
			M

**Description:** Configuration of the tracefiles SIEM\*  
 Bit0:  
 Additional information about the PDUs sent is to be entered in \_N\_SIEMDOMAINSEQ\_MPF for download  
 Bit1:  
 Additional information about the PDUs received is to be entered in \_N\_SIEMDOMAINSEQ\_MPF for download  
 Bit2:  
 Trace of warm start and connection cancelation in \_N\_SIEMDOMAINSEQ\_MPF  
 Bit4:  
 Additional information about the PDUs sent is to be entered in \_N\_SIEMDOMAINSEQ\_MPF for upload  
 Bit5:  
 Additional information about the PDUs received is to be entered in \_N\_SIEMDOMAINSEQ\_MPF for upload

11295	PROTOK_FILE_MEM	N01	-
-	Memory type for log files	BYTE	PowerOn
-			
-	10	1, 1, 1, 1, 1, 1, 1, 1...	0
			1
			1/1
			M

**Description:** Type of memory in which the contents of log files are stored.  
 0: SRAM

1: DRAM area TMP

11297	PROTOK_IPOCYCLE_CONTROL			N01	-	
-	Prevent overrun of IPO time level			BYTE	PowerOn	
-						
-	10	1, 1, 1, 1, 1, 1, 1, 1...	0	1	1/1	M

**Description:** Setting whether an overflow of the time level is to be prevented during the recording of data in the time level of the IPO.

If applicable, data sets are discarded when the function is active, and are not entered in the log file in order to prevent an impending overflow of the IPO time level.

This may mean that data sets are also then lost if a level overflow would not yet have occurred with the function inactive.

11298	PROTOK_PREPTIME_CONTROL			N01	-	
-	Interruption time prep time level in seconds.			DOUBLE	PowerOn	
-						
-	10	1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0...	-	-	1/1	M

**Description:** Time in seconds, for which the prep time level may be blocked. If the PREP does not manage to pass through within the set time, the cyclic events are not logged. It is thus ensured that operation cannot be completely blocked by data recording.

11300	JOG_INC_MODE_LEVELTRIGGRD			N01	H1,R1	
-	INC and REF in jog mode			BOOLEAN	PowerOn	
-						
-	-	TRUE	-	-	7/2	M

**Description:** 1: Jog mode for JOG-INC and reference point approach

JOG-INC:

When the traversing key is pressed in the required direction (e.g. +), the axis begins to traverse the set increment. If the key is released before the increment has been completely traversed, the movement is interrupted and the axis stops. If the same key is pressed again, the axis completes the remaining distance-to-go until this is 0.

0: Continuous operation for JOG-INC and reference point approach

JOG-INC:

When the traversing key is pressed (first rising edge) the axis travels the whole set increment. If the same key is pressed again (second rising edge) before the axis has completed traversing the increment, the movement is canceled, i.e. not completed.

The differences in axis travel behavior between the jog mode and continuous operation in incremental traversing are described in detail in the relevant chapters.

For travel behavior in reference point approach see

References: /FB/, R1, "Reference Point Approach"

MD irrelevant for:

Continuous traversing (JOG continuous)

11310	HANDWH_REVERSE	N09	H1
-	Threshold for direction change handwheel	BYTE	PowerOn
-			
-	-	2	-
-	-	-	-
-	-	7/2	M

**Description:** Handwheel travel:  
Value = 0:  
No immediate travel in the opposite direction  
Value > 0:  
Immediate travel in the opposite direction if the handwheel is turned at least the stated number of pulses in the opposite direction.  
Whether this machine data is also active for handwheel travel with DRF depends on bit10 of MD20624 \$MC\_HANDWH\_CHAN\_STOP\_COND.

11320	HANDWH_IMP_PER_LATCH	N09	H1
-	Handwheel pulses per detent position	DOUBLE	PowerOn
-			
-	6	1., 1., 1., 1., 1., 1.	-
-	-	-	-
-	-	7/2	M

**Description:** The connected handwheels are adapted to the control in MD11320 \$MN\_HANDWH\_IMP\_PER\_LATCH.  
The number of pulses generated by the handwheel for each handwheel detent position has to be entered. The handwheel pulse weighting must be defined separately for each connected handwheel (1 to 3). With this adaptation, each handwheel detent position has the same effect as one press of the traversing key in incremental traversal.  
Entering a negative value reverses the direction of rotation of the handwheel.  
Related to:  
MD31090 \$MA\_JOG\_INCR\_WEIGHT  
(weighting of an increment of a machine axis for INC/manual).

11322	CONTOURHANDWH_IMP_PER_LATCH	N09	H1
-	Contour handwheel pulses per detent position	DOUBLE	PowerOn
-			
-	6	1., 1., 1., 1., 1., 1.	-
-	-	-	-
-	-	7/2	M

**Description:** Adaptation factor to the hardware of the contour handwheel:  
Enter the number of pulses issued per detent position by the contour handwheel.  
Because of this normalization, a detent position of the contour handwheel corresponds to one press of a key with incremental jog processes.  
Sign reversal reverses the direction of evaluation.

11324	HANDWH_VDI_REPRESENTATION	N01	OEM
-	Display of handwheel number in VDI Interface	DWORD	PowerOn
-			
-	-	0	0
-	-	1	1
-	-	7/2	M

**Description:** The number of the handwheel is displayed in the channel/axis-specific signals of the VDI interface:

Value = 0 :  
 Bit coded (1 of 3, only 3 handwheels can be displayed)  
 Value = 1 :  
 Binary coded (6 handwheels can be displayed)

11330	JOG_INCR_SIZE_TAB			EXP, N09	H1	
-	Increment size for INC/handwheel			DOUBLE	PowerOn	
-						
-	5	1., 10., 100., 1000., 10000.	-	-	7/2	M

**Description:** In incremental traversal or handwheel travel, the number of increments to be traversed by the axis can be defined by the user, e.g. via the machine control panel.

In addition to the variable increment size (INCvar), 5 fixed increment sizes (INC...) can also be set.

The increment size for each of these 5 fixed increments is defined collectively for all axes by entering values in JOG\_INCR\_SIZE\_TAB [n]. The default setting is INC1, INC10, INC100, INC1000 and INC10000.

The entered increment sizes are also active for DRF.

The size of the variable increment is defined in SD41010 \$SN\_JOG\_VAR\_INCR\_SIZE.

Related to:

MD31090 \$MA\_JOG\_INCR\_WEIGHT (weighting of an increment for INC/manual)

NC/PLC interface signal DB21-30 DBX41.0-.4, DBX47.0-.4, DBX53.0-.4  
 (Geometry axis 1-3 active machine function: INC1; ...; INC10000)

NC/PLC interface signal DB31, ... DBB65.0 - .5  
 (active machine function: INC1; ...; INC10000).

11342	ENC_HANDWHEEL_MODULE_NR			N01	H1	
-	3rd handwheel: drive number / measuring circuit number			BYTE	PowerOn	
-						
-	-	0	0	31	7/2	M

**Description:** For SIMODRIVE611D only (or for PROFIBUS/PROFINET for test purposes):  
 Number of the module within a segment (MD11340 \$MN\_ENC\_HANDWHEEL\_SEGMENT\_NR) used to address the 3rd handwheel. On the SIMODRIVE611D, the logical drive number must be entered here (see MD13010 \$MN\_DRIVE\_LOGIC\_NR).

= 0: The configuration of a 3rd handwheel is deactivated,  
 in this case the settings of MD11340 \$MN\_ENC\_HANDWHEEL\_SEGMENT\_NR and MD11344 \$MN\_ENC\_HANDWHEEL\_INPUT\_NR are irrelevant.

Related to

MD13010 \$MN\_DRIVE\_LOGIC\_NR  
 MD11340 \$MN\_ENC\_HANDWHEEL\_SEGMENT\_NR  
 MD11344 \$MN\_ENC\_HANDWHEEL\_INPUT\_NR

11344	ENC_HANDWHEEL_INPUT_NR			N01	H1	
-	3rd handwheel: Input to module/meas. circ. Board			BYTE	PowerOn	
-						
-	-	1	1	2	7/2	M

**Description:** For SIMODRIVE611D only (or for PROFIBUS/PROFINET for test purposes):  
 Number of the input on a module used to address the 3rd handwheel.

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840D: 1/2 = upper/lower actual value input  
 Related to MD11340 \$MN\_ENC\_HANDWHEEL\_SEGMENT\_NR  
 MD11342 \$MN\_ENC\_HANDWHEEL\_MODULE\_NR

11346	HANDWH_TRUE_DISTANCE			N01		H1,P1,W1
-	Handwheel default path or velocity			BYTE		PowerOn
-						
-		1	0	7	7/2	M

**Description:** Setting the behavior for traversing with the handwheel, contour handwheel and with FDA=0:

Value = 1: (default value)

The default settings of the handwheel are path defaults. No pulses are lost. Residual axis motions occur as a result of the limitation to a maximal permissible velocity.

Value = 0:

The default settings of the handwheel are velocity defaults. The axes stop as soon as the handwheel stops. The motion is immediately braked if no pulses come from the handwheel in an interpolation cycle.

Therefore, only a short residual motion of the axes can occur as a result of the braking ramp. The handwheel pulses do not supply a path default.

Value = 2:

The default settings of the handwheel are velocity defaults. The axes are to stop as soon as the handwheel stops. The motion is immediately braked if no pulses come from the handwheel in an interpolation cycle.

However, in contrast to

value = 0 braking is not along the shortest possible path but to the next possible point in a notional grid.

Each increment in the grid corresponds to a displacement which the selected axis travels per handwheel detent position (see MD31090 \$MA\_JOG\_INCR\_WEIGHT and

MD11330 \$MN\_JOG\_INCR\_SIZE\_TAB, MD20620 \$MC\_HANDWH\_GEOAX\_MAX\_INCR\_SIZE, MD32080 \$MA\_HANDWH\_MAX\_INCR\_SIZE). The start of the traversing is taken as the zero point of the grid.

Value = 3:

The default settings of the handwheel are path defaults. If premature braking is required

on account of settings in other machine data (MD11310 \$MN\_HANDWH\_REVERSE != 0, MD20624 \$MC\_HANDWH\_CHAN\_STOP\_COND,

MD32084 \$MA\_HANDWH\_STOP\_COND), then, in

contrast to value = 1 braking is not along the shortest possible path, but to the next possible point in a notional grid (see

value = 2).

Value = 6:

Same as value = 2, but travel does not stop at the last possible grid position in front of a limit, but at the limit.

Value = 7:

Same as value = 3, but travel does not stop at the last possible grid position in front of a limit, but at the limit.



11350	HANDWHEEL_SEGMENT	N09	H1
-	Handwheel segment	BYTE	PowerOn
-			
-	6	0, 0, 0, 0, 0, 0	-
-			7/2
-			M

**Description:** Machine data defines which hardware segment the handwheel is connected to:

- 0 = SEGMENT\_EMPTY ;no handwheel
- 1 = SEGMENT\_840D\_HW ;handwheel at 840D HW
- 2 = SEGMENT\_8xxD\_HW ;handwheel at 828D s1, 808D -HW
- 5 = SEGMENT\_PROFIBUS ;handwheel at PROFIBUS
- 7 = SEGMENT\_ETHERNET ;handwheel at Ethernet

11351	HANDWHEEL_MODULE	N09	H1
-	Handwheel module	BYTE	PowerOn
-			
-	6	0, 0, 0, 0, 0, 0	0
-			6
-			7/2
-			M

**Description:** Machine data specifies the hardware module to which the handwheel is connected.  
(Content dependent on MD11350 \$MN\_HANDWHEEL\_SEGMENT):

- 0 = no handwheel configured
- \$MN\_HANDWHEEL\_MODUL =
- 1 ;SEGMENT\_840D\_HW
- 1 ;SEGMENT\_8xxD\_HW; 828D s1, 808D -HW
- 1..6 ;SEGMENT\_PROFIBUS/PROFINET ;index for MD11353
- \$MN\_HANDWHEEL\_LOGIC\_ADDRESS[(x-1)]
- 1 ;SEGMENT\_ETHERNET

11352	HANDWHEEL_INPUT	N09	H1
-	Handwheel connection	BYTE	PowerOn
-			
-	6	0, 0, 0, 0, 0, 0	0
-			6
-			7/2
-			M

**Description:** Machine data which is intended to select the handwheels connected to a hardware module:

- 0 = No handwheel configured
- 1..6 = Handwheel connection to HW module/Ethernet interface

11353	HANDWHEEL_LOGIC_ADDRESS	N04, N10	H1
-	Logical handwheel slot addresses	DWORD	PowerOn
-			
-	6	0, 0, 0, 0, 0, 0	0
-			16383
-			7/2
-			M

**Description:** For PROFIBUS/PROFINET only:  
Logical start address of the hand wheel slots if handwheels are connected by PROFIBUS/PROFINET (\$MN\_HANDWHEEL\_SEGMENT = 5)

11354	HANDWHEEL_FILTER_TIME	N09	-
s	Filter time for handwheel pulses	DOUBLE	PowerOn
-			
-	6	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	0.0
		2.0	7/2
			M

**Description:** The filter time indicates the time during which the pulses from the handwheel are output to the interpolator. The values are incremented internally in interpolation cycles.

In the case of a filter time setting = 0.0, the pulses from the handwheel are output to the interpolator within a single interpolation cycle. This can cause the controlled axis to exhibit jerk during traversing.

Machine data is valid for the following types of handwheel (see 11350 \$MN\_HANDWHEEL\_SEGMENT):

SEGMENT\_ETHERNET:

- Recommended filter time: 0.2 - 0.5 s

11380	MONITOR_ADDRESS	EXP, N06	STZ
-	Test MD for changing the NCK code or data for Safety Integrated	DWORD	Immediately
NBUP, NDLD			
-	-	0	-
		-	0/0
			M

**Description:** Address of an NCU memory location whose content is displayed in the MD11382 \$MN\_MONITOR\_DISPLAY\_INT and 11384 \$MN\_MONITOR\_DISPLAY\_REAL.

There are no protective measures incorporated to prevent unauthorized access. That is the input address points to a memory area protected by the system or unoccupied, so refreshing the MD values MONITOR\_DISPLAY\_INT and MONITOR\_DISPLAY\_REAL causes a time-out and the NCU remains at a standstill (watchdog LED lights up)!

There is a list of permissible addresses for the test, which depends on the software version.

A restart resets the address to its starting value.

It then points to any writable and readable memory location that is not used by any other system function.

11382	MONITOR_DISPLAY_INT	EXP, N06	STZ
-	INTEGER display of the addressed location	DWORD	Immediately
NBUP, NDLD			
-	-	0	-
		-	0/0
			M

**Description:** INTEGER display of the addressed location SW3.2

This MD displays the content of the NCU memory location that is defined in MD11380 \$MN\_MONITOR\_ADDRESS. The displayed values contains the four consecutive bytes from the stated address, whereby the first byte is on the extreme right and the fourth on the extreme left.

This MD is a display MD whose content is read anew on every display refresh. Writing to this MD is ignored (without alarm).

11384	MONITOR_DISPLAY_REAL	EXP, N06	STZ
-	REAL display of the addressed location	DOUBLE	Immediately
NBUP, NDLD			
-	-	0.0	-
		-	0/0
			M

**Description:** REAL display of the addressed location SW3.2

This MD displays the content of the NCU memory location that is defined in MDMD11380 \$MN\_MONITOR\_ADDRESS. The displayed value interprets the eight consecutive memory locations from the stated address as a floating point number with double accuracy (64 bit IEEE format). 0.0 is displayed if this value does not correspond to a valid floating point number.

This MD is a display MD whose content is read anew on every display refresh. Writing to this MD is ignored (without alarm).

11386	MONITOR_INPUT_INT	EXP, N06	STZ
-	INTEGER input for the addressed location	DWORD	Immediately
NBUP, NDLD			
-	-	0	-
			0/0
			M

**Description:** INTEGER input for addressed location, SW3.2

The value is written with the aid of MD11390 \$MN\_MONITOR\_INPUT\_STROBE into the address selected with MD11380 \$MN\_MONITOR\_ADDRESS. The 4 bytes from the stated address are taken over by writing the value 1 in the MD11390 \$MN\_MONITOR\_INPUT\_STROBE.

In so doing, the byte moves to the extreme right of the memory location MONITOR\_ADDRESS, the byte to its left into the memory location MONITOR\_ADDRESS+1, etc.

11388	MONITOR_INPUT_REAL	EXP, N06	STZ
-	REAL input for addressed location	DOUBLE	Immediately
NBUP, NDLD			
-	-	0.0	-
			0/0
			M

**Description:** REAL input for addressed location, SW3.2

The value is written with the aid of MD11390 \$MN\_MONITOR\_INPUT\_STROBE into the address selected with MD11380 \$MN\_MONITOR\_ADDRESS. The 8 bytes from the stated address are taken over by writing the value 2 in the MD11390 \$MN\_MONITOR\_INPUT\_STROBE.

In so doing, the input floating point number is converted into 64 bit IEEE format.

11390	MONITOR_INPUT_STROBE	EXP, N06	STZ
-	Overwrite the addressed location with MONITOR_INT/REAL	BYTE	Immediately
NBUP, NDLD			
-	-	0	0
		2	0/0
			M

**Description:** Overwriting the addressed location with MD11386 \$MN\_MONITOR\_INPUT\_INT/REAL or MD11388 \$MN\_MONITOR\_INPUT\_REAL SW3.2

An input into this MD takes over the content of the MD11386 \$MN\_MONITOR\_INPUT\_INT or the MD11388 \$MN\_MONITOR\_INPUT\_REAL. The input value decides which data is taken over:

0: No action

1: Content of MD11386 \$MN\_MONITOR\_INPUT\_INT is written in four NCU bytes from MD11380 \$MN\_MONITOR\_ADDRESS.

2: Content of MD11388 \$MN\_MONITOR\_INPUT\_REAL is written in eight NCU bytes from MD11380 \$MN\_MONITOR\_ADDRESS.

The content of MONITOR\_INPUT\_STROBE is reset to 0 after the takeover (no action). A new input can therefore be made immediately.

In order to familiarize oneself with this function, one should first leave MD11380 \$MN\_MONITOR\_ADDRESS at its default value. One can then write data without causing damage.

1.3 NC machine data

Examples:

```
MONITOR_INPUT_INT = 55AA
MONITOR_INPUT_STROBE = 1
=> in MONITOR_DISPLAY_INT appears 55AA
MONITOR_INPUT_REAL = 1.234
MONITOR_INPUT_STROBE = 2
=> in MONITOR_DISPLAY_REAL appears 1.234
```

Caution!!!

Writing data to unknown addresses can even destroy the NCK system program! That may have unforeseen consequences (danger to machine and people!). If the machine and those present survive such an action undamaged, the system program can usually be restored by power off/on.

11398	AXIS_VAR_SERVER_SENSITIVE	EXP	B3
-	Axis-Var server response	BYTE	PowerOn
-			
-	-	0	-
			7/2 M

**Description:** The axis-variable server supplies the data for the OPI blocks SMA/SEMA, SGA/SEGA and SSP.  
 If no value can be supplied for an axis (e.g. because the axis is a link axis) then a default value (usually 0) is returned.  
 For debugging purposes, this machine data can be used to set the axis-var-server to sensitive so that an error message is returned instead of a default value.  
 0: default value  
 1: error message

11400	TRACE_SELECT	EXP	-
-	Activation of internal trace functions	DWORD	PowerOn
-			
-	-	0	-
			0/0 M

**Description:** Bit string for activating internal trace functions for NCK time measurements, analog output of variables etc.

11405	TCI_TRACE_ACTIVE	EXP	-
-	Activation of internal task trace function	BOOLEAN	PowerOn
-			
-	-	FALSE	-
			0/0 M

**Description:** Control the activation of the TCI interface for the NRKpro. It will activate the tci and kernel task traces modules.

11410	SUPPRESS_ALARM_MASK	EXP, N06	D1,M3,K3,S1,V1,W1
-	Mask for support of special alarm outputs	DWORD	PowerOn
-			
-	-	0x108000	0
			0xFFFFFFFF 7/2 M

**Description:** Mask for suppressing special alarm outputs  
 Bit set: The corresponding alarm (warning) is NOT triggered.  
 Bit 0:  
 Alarm 15110 "Channel %1 block %2 REORG not possible"

Bit 1:  
Alarm 10763 "Channel %1 block %2. The path component of the block in the contour plane is zero"

Bit 2:  
Alarm 16924 "Channel %1 Caution: Program testing can modify tool/magazine data"  
--> Note: The alarm is only a message alarm

Bit 3:  
Alarm 22010 "Channel %1 spindle %2 block %3. Actual gear stage does not correspond to set gear stage"

Bit 4:  
Alarm 17188 "Channel %1 D number %2 with tool T nos. %3 and %4 defined"  
Alarm 17189 "Channel %1 D number %2 of the tools in magazines/magazine locations %3 and %4 defined". The two alarms are of equal status and are only message alarms.

Bit 5:  
Alarm 22071 "TO unit %1 tool %2 duplo no. %3 is active but not in the active wear grouping." The alarm is only a message alarm.

Bit 6:  
Alarm 4027 "NOTICE! MD %1 was also changed for the other axes in the axis container %2 "  
Alarm 4028 "NOTICE! The axial MDs in the axis container will be aligned on the next runup "

Bit 7:  
Alarm 22070 "TO unit %1 please change tool T= %2 to magazine. Repeat data backup". The alarm is only a message alarm.

Bit 8:  
Alarm 6411 "Channel %1 tool %2 with duplo no. %3 has reached tool prewarning limit"  
Alarm 6413 "Channel %1 tool %2 with duplo no. %3 has reached tool monitoring limit."  
The two alarms are only message alarms. They occur during program execution.

Bit 9:  
Alarm 6410 "TO unit %1 tool %2 with duplo no. %3 has reached tool prewarning limit ."  
Alarm 6412 "TO unit %1 tool %2 with duplo no. %3 has reached tool monitoring limit ".  
The two alarms are only message alarms. They occur as a result of an operator action.

Bit10:  
Alarm 10604 "channel %1 block %2 "Thread lead increase too high"  
Alarm 10605 "channel %1 block %2 "Thread lead decrease too high"

Bit 11:  
Alarm 14088 "Channel 51 block %2 axis %3 doubtful position".

Bit 12:  
obsolete (Alarm 10607)"

Bit13:  
Alarm 10704 " channel %1 block %2 Protection area monitoring is not guaranteed."

Bit14:  
Alarm 21701 "Measuring reactivated too soon (<2 IPO cycles)"

Bit15:  
Alarm 5000 "Communication order cannot be executed"

Bit16:  
Alarm 21600 "Monitoring active for ESR"

Bit17:  
Alarm 16945 "Channel %1 action %2<ALNX> is delayed until block end"  
Note: The alarm is only a message alarm.

Bit18:  
Alarm 10750 "Channel %1 block %2 Activation of the tool radius compensation without tool number"

Bit19: Alarm 17193 "Channel %1 block %2 The active tool ist no longer at tool holder no./spindle no. %3, program %4"

Bit20:  
Alarm 2900 "Reboot is delayed"

Bit21:  
Alarm 22012 "Channel %1 block %2. Leading axis %3 is in simulation mode"  
Alarm 22013 "Channel %1 block %2. Following axis %3 is in simulation mode"  
Alarm 22014 "Channel %1 block %2. The dynamics of leading axis %3 and following axis %4 are very different"  
Alarm 22040 "Channel%1 Block %3 Spindle %2 not referenced with zero mark" is no longer checked (cyclically) with  
    Bit21 set after power ON of the closed loop position control.

Bit22:  
Alarm 26080 "Channel %1 retraction position of axis %2 not programmed or invalid"  
Alarm 26081 "Channel %1 single axis trigger axis %2 is triggered, but axis is not PLC controlled"

Bit23:  
Alarm 16949 "Correspondence between marks of channel %1 and channel %2 is invalid"

Bit24:  
Alarm 16950 "Channel %1 search run with holding block"

Bit25:  
Alarm 22016 "Channel %1 block %2 following spindle %3 in range of reduced acceleration capacity"

Bit26:  
Alarm 22015 "Channel %1 block %2 following spindle %3 no dynamic response for additional motion"

Bit27:  
Alarms 16112 and 22030 "Channel %1 block %2 following spindle %3 impermissible programming"

Bit28:  
Alarm 26083 "Channel %1 ESR for PLC controlled axis %2 was triggered"

Bit29:  
Alarm 16772 "Channel %1 block %2 axis %3 is following axis, coupling is opened"

Bit30:  
Alarm 16600 "Channel %1 block %2 spindle %3 gear stage change not possible"

Bit31:  
Alarm 16774 "Channel %1 axis %2 synchronization canceled"

11411	ENABLE_ALARM_MASK	EXP	D1,K1
-	Activation of warnings	DWORD	Reset
-			
-	-	0x0	0
-		0xFFFFFFFF	7/2
			M

**Description:**

Mask for generating alarms that are normally suppressed.

Bit set: Alarms of this alarm group are output.

Bit not set: Alarms of this alarm group are not output.

Bit Hex.Meaning

value

```
=====
0:  0x1Alarms that have SHOWALARMAUTO as the alarm response are output.
1:  0x2Alarms that have SHOWWARNING as the alarm response are output.
2:  0x4Alarm 22280 "Thread power up path too short" is output.
3:  0x8Alarms that are triggered by the NCU LINK MODULE are switched on.
4:  0x10Alarm 10883 "Chamfer or rounding must be shortened" allowed.
5:  0x20Alarm 20096 "Brake test canceled" is output.
6:  0x40Alarm 16956 "Program cannot be started because of global start dis-
    able" is output.
```

Alarm14005 "Program cannot be started because of program-specific start disable" is output. Alarm can only be switched on in channel status RESET, in all other channel states it is output without conditions.

```
7:  0x80Alarm 16957 "Stop delay range is suppressed" is output.
```

```
8:  0x100Alarm 1011 fine coding150019 or 150020 "Incorrect axis number in
    the LINK".
```

```
9:  0x200Alarm 22033 Diagnostics 1 to 6 for "Track synchronism" (linkages).
```

```
10: 0x400Alarm 15122 "PowerOn after Powerfail: %1 data were restored,
    thereof %2 machine data, %3 errors" is output.
```

```
11: 0x800Alarms 10722, 10723, 10732 or 10733 are output instead of alarms
    10720, 10721, 10730 or 10731.
```

```
12: 0x1000Alarm 22033 diagnostics greater than or equal to 7 for "Track syn-
    chronism" (linkages)
```

11412	ALARM_REACTION_CHAN_NOREADY	EXP, N01	D1
-	Alarm response CHAN_NOREADY permitted	BOOLEAN	PowerOn
-			
-	-	FALSE	-
-			7/2
			M

**Description:**

This MD is used for compatibility with the PLC systems older than SW4.1.

If this MD is not set, the behavior implemented before SW4.1 (configured alarm reaction) is set

With SW 4.1 and higher, it is possible to set signal CHANNEL\_NOREADY on the PLC in response to alarms.

If this MD is not set, then the alarm handler internally re-configures BAG\_NOREADY into CHAN\_NOREADY.

11413	ALARM_PAR_DISPLAY_TEXT	EXP, N01	D1
-	Alarm parameter as text output	BOOLEAN	PowerOn
-			
-	-	FALSE	-
-			0/0
			M

**Description:**

If the MD is set, texts can be output as alarm parameters instead of numbers.

1.3 NC machine data

11414	ALARM_CLR_NCSTART_W_CANCEL	EXP, N01	D1
-	Clear NCSTART alarms with CANCEL	BOOLEAN	PowerOn
-			
-	-	FALSE	-
-	-	-	-
-	-	7/2	M

**Description:** If this MD is set, then alarms that have ClearInfo=NCSTART are cleared by the Alarm Cancel button as well as by NC-Start.  
 If this MD is not set, then NCSTART alarms are not cleared by Cancel.  
 The purpose of this MD is to provide compatibility with system behavior.

11415	SUPPRESS_ALARM_MASK_2	EXP, N06	-
-	Masking of alarm outputs	DWORD	PowerOn
-			
-	-	0x8	-
-	-	-	-
-	-	7/2	M

**Description:** Screen form for suppressing special alarm outputs  
 Bit set:Corresponding alarm (warning) is NOT triggered.  
 Bit Hex. Meaning  
 value  
 =====  
 =====  
 0: 0x116773 "Channel %1 axis %3 is slave axis. The axis/spindle disables for the master axes differ."  
 1: 0x22100 "NCK battery warning level reached"  
     2101 "NCK battery alarm"  
     2102 "NCK battery alarm"  
 2: 0x42120 "NCK fan alarm" (ineffective on modules which do not require a fan by design)  
 3: 0x815120 "PowerFail: Show buffer overflow"  
 4: 0x1015187 "Error during execution of PROGEVENT file"  
 5: 0x2015188 "Error during execution of ASUB file"  
 6: 0x4026120 "\$AA\_ESR\_ENABLE = 1 and axis is to become neutral"  
     26121 "Axis is neutral and \$AA\_ESR\_ENABLE =1 is to be set"  
     26123 "\$AA\_ESR\_ENABLE = 1 is to be set, but \$MA\_ESR\_REACTION is not set"  
     26124 "\$AC\_TRIGGER triggered, but axis is neutral, ESR ignores this axis"  
 7: 0x80:10724 "Software limit violated at start of block"  
     10734 "Operating range limit violated at start of block"  
     10737 "Work (WCS) operating range limit violated at start of block"  
 8: 0x100:14008 "WRITE command in /\_N\_EXT\_DIR"  
     10734 "Operating range limit violated at start of block"  
     10737 "Work (WCS) operating range limit violated at start of block"  
 9: 0x20014006 "Invalid program name"  
 10: 0x400:4006 "Maximum number of axes that can be activated exceeded"  
 11: 0x80016017 "LIFTFAST ignores this axis, as it cannot be used for the current axis type"  
 12: 0x100022025 "Channel %1 Block %2 Following axis/spindle %3 Synchronism (2): Fine tolerance exceeded"  
     - Exception: Alarm is generated if CPMALARM[FAX] bit 8 = 0 is programmed for the corresponding slave axis/spindle.



22026 "Channel %1 Block %2 Following axis/spindle %3 Synchronism (2):  
Coarse tolerance exceeded"  
- Exception: Alarm is generated if CPMALARM[FAx] bit 9 = 0 is  
programmed for the corresponding slave axis/spindle.  
13: 0x200022001 "Braking ramp longer than Stop D time."  
22002 "Braking ramp longer than Stop D time with gear stage %3  
reason %4"  
14: 0x400016963 "ASUB start refused."  
15: 0x800021751, "Limit velocity %2 deg/min on modulo axis %1 exceeded  
(defective cam output)"  
21752, "Axis %1 minimum cam width cam %3 undershot at curr. velocity %2 "  
16: 0x1000017212 "Channel %1 Tool management: Load manual tool %3, Duplo no.  
%2 to spindle/toolholder"  
17214 "Channel %1 Tool management: Unload manual tool %3 from  
spindle/toolholder %2"  
17215 "Channel %1 Tool management: Unload manual tool %3 from buf-  
fer location %2"  
17216 "Channel %1 Unload manual tool from toolholder %4 and load  
manual tool %3 %2"  
17: 0x2000016771 "Channel %1 Block %3 Following axis %2 Overlaid movement not  
enabled"  
18: 0x400004039 "Channel %1 Axis container %2 Advance not allowed: Channel  
has no container axes"  
19: 0x800007204 "The compile cycle %1 is a preliminary version  
20: 0x100000 This bit is effective at RESET. This means that the SHOWALARM  
and SETVDI responses of the following alarms can be suppressed:  
10700 "Channel %1 block %2 NCK protection area %3 in automatic  
or MDI violated"  
10701 "Channel %1 block %2 channel-specific protection area %3  
in automatic or MDI violated"  
21: 0x20000026295 "Protection area %1 was only roughly approximated."

11420	LEN_PROTOCOL_FILE	N01		PGA		
-	Size of protocol files (kB)	DWORD		PowerOn		
-						
-	-	1	1	1000000	7/2	M

**Description:** Blocks from the part program can be stored in a file in the passive file system with the WRITE command. The length of the log file is limited. If this maximum length is exceeded, the WRITE command returns an error (error code 10).

11422	PROTOCOL_FILE_MODE	EXP, N01		PGA		
-	Setting the behavior of the WRITE command	DWORD		PowerOn		
-						
-	-	0	0	0x3	7/2	M

**Description:** Setting the behavior of the WRITE command for writing to the passive file system  
Bit 0 = 0:  
The file created with WRITE is stored persistently in the USR area (see \$MM\_U\_FILE\_MEM\_SIZE).  
The block written with WRITE becomes persistent immediately, i.e. it is stored power failsafe.

WRITE is slowed down by the backup with this setting.

Bit 0 = 1:

The file created with WRITE is stored persistently in the USR area (see \$MM\_U\_FILE\_MEM\_SIZE).

The block written with WRITE becomes persistent after a time delay.

WRITES less than one second old may be lost in the event of a power failure.

WRITE runs faster with this setting.

Bit 1: Reserved

11450	SEARCH_RUN_MODE	EXP, N01	K1,TE3,N4,H2,Z1			
-	Parameterization for search run	DWORD	PowerOn			
-						
-	-	0	0	0x3F	7/2	M

**Description:**

The behavior during the action blocks after search run can be affected by the following bits:

Bit 0 = 0:

Machining is stopped after loading of the last action block after search run, the NC/PLC interface signal DB21-30 DBX32.6 (last action block active) and alarm 10208 is output.

Bit 0 = 1:

Machining is stopped with the loading of the last action block after search run, and the NC/PLC interface signal DB21-30 DBX32.6 (last action block active) is set. Alarm 10208 is not output until the PLC requests it by setting the NC/PLC interface signal DB21-30 DBX1.6 (PLC action finished).

Usage:

Starting an ASUB from the PLC after search run.

The message to the operator that another NC start is required in order to continue with the program is not to be displayed until after the end of the ASUB.

Bit1 = 1

Automatic ASUB start after output of the action blocks (see also MD11620 \$MN\_PROG\_EVENT\_NAME). Alarm 10208 is not output until the ASUB has finished.

Bit2 = 0:

Spindle: The auxiliary functions are output in the action blocks

Bit2 = 1:

The output of the auxiliary functions in the action blocks is suppressed. The spindle programming collected by search run can be output at a later point in time (e.g. in an ASUB).

The program data for this are stored in the following system variables:

- \$P\_SEARCH\_S,
- \$P\_SEARCH\_SDIR,
- \$P\_SEARCH\_SGEAR,
- \$P\_SEARCH\_SPOS,
- \$P\_SEARCH\_SPOSMODE.

Bit 3 = 1:

The cascaded search run is disabled (default setting: release).

Cascaded search run means that the search run is restarted immediately after finding a search target.

Bit 4:Reserved

Bit 5 = 0:

During block search on a nibbling block the 1st nibbling stroke is not executed.

Bit 5 = 1:

During block search on a nibbling block a punching stroke is triggered at block start (1st nibbling stroke).

11460	OSCILL_MODE_MASK		N09	P5		
-	Mode mask for asynchronous oscillation		DWORD	PowerOn		
-						
-	-	0x0	0	0xFFFF	7/2	M

**Description:**

Bit 0

Value 1

In the case of block search, the oscillation movement is started immediately after NC start, i.e. during approach to approach position, provided it has been activated in the program section being processed.

Value 0

(default value)

The oscillation movement is not started until the approach position is reached.

11470	REPOS_MODE_MASK		EXP, N01	K1		
-	Repositioning properties		DWORD	PowerOn		
-						
-	-	0x8	0	0xFFFF	7/2	M

**Description:**

This bit mask can be used to set the behavior of the control during repositioning.

Bit no.            Meaning when bit set

-----

-

0 (LSB)

The dwell time is continued in the residual block from where it was interrupted. (If the bit is not set, the dwell time is repeated completely).

1    Reserved

2    When the bit is set, the repositioning of individual axes can be prevented or delayed via the VDI interface.

3    When the bit is set, positioning axes are repositioned in the approach block during search run via program test.

4    As 3, but after every Repos, not only during search run.

5    When the bit is set, changed feeds and spindle speeds already become valid in the residual block, otherwise not until the following block.

6    When the bit is set, neutral axes and positioning spindles are repositioned after SERUPRO as command axes in the approach block.

7    The bit changes the behavior of the VDI-AXIN interface signal "Repos Delay". The level of "Repos Delay" is read if REPOSA is interpreted. Axes that are neither geo nor orientation axes are then excluded from the REPOS, that is REPOS does NOT move these axes.

11480	PLC_OB1_TRACE_DEPTH			EXP, N03, N09	-	
-	Buffer depth of PLC trace data at OB1			DWORD	PowerOn	
-						
-	-	2	2	8	2/2	M

**Description:**

Buffer depth of PLC trace data at OB1.

Multiple values of PLC data are buffered, between the time of collection in the PLC and the time of inspection in NCK. Variables traced at "OB1" are collected once per complete PLC scan, but can only be inspected once per IPO cycle.

The buffer size must accommodate at least one more value than the total number of buffered values to be inspected. This is to prevent NCK from inspecting a value that the PLC is in the process of collecting.

A good value to start with is one more than MD10074 \$MN\_PLC\_IPO\_TIME\_RATIO. The larger the buffer depth, the fewer PLC variables that can be traced, because there is a single, small, fixed pool of data slots for sending data samples from the PLC to NCK (64 data slots). Every PLC variable being traced is allocated as many data slots from the pool as the value of the buffer depth.

This single pool of data slots is shared by data collected at OB1, OB35, and OB40 (even though the buffer depths of OB1, OB35, and OB40 can be configured to be different from one another). It is also shared by all concurrent users of trace, even though the users might have no knowledge of one another.

11481	PLC_OB35_TRACE_DEPTH			EXP, N03, N09	-	
-	Buffer depth of PLC trace data at OB35			DWORD	PowerOn	
-						
-	-	2	2	8	2/2	M

**Description:**

Buffer depth of PLC trace data at OB35.

Multiple values of PLC data are buffered, between the time of collection in the PLC and the time of inspection in NCK. Variables traced at "OB35" are collected every time the PLC timer interrupts, but can only be inspected once per IPO cycle.

The buffer size must accommodate at least one more value than the number of buffered values to be inspected. This is to prevent NCK from inspecting a value that the PLC is in the process of collecting.

A good value to start with is one more than the number of PLC timer interrupts expected to occur every IPO cycle.

The larger the buffer depth, the fewer PLC variables that can be traced, because there is a single, small, fixed pool of data slots for sending data samples from the PLC to NCK (64 data slots). Every PLC variable being traced is allocated as many data slots from the pool as the value of the buffer depth.

The single pool of data slots is shared by data collected at OB1, OB35, and OB40 (even though the buffer depths of OB1, OB35, and OB40 can be configured to be different from each other). It is also shared by all concurrent users of trace, even though the users might have no knowledge of one another.

11482	PLC_OB40_TRACE_DEPTH	EXP, N03, N09			-	
-	Buffer depth of PLC trace data at OB40	DWORD			PowerOn	
-						
-	-	2	2	8	2/2	M

**Description:**

Buffer depth of PLC trace data at OB40.

Multiple values of PLC data are buffered, between the time of collection in the PLC and the time of inspection in NCK. Variables traced at "OB40" are collected just when the PLC receives the special, programmably initiated OB40 interrupt from NCK, but can only be inspected once per IPO cycle.

The buffer size must accommodate at least one more value than the number of buffered values to be inspected. This is to prevent NCK from inspecting a value that the PLC is in the process of collecting.

If the OB40 interrupt is issued less frequently than once per IPO cycle, then the OB40 buffer depth should be 2. Otherwise it should be one more than the largest number of interrupts expected during any one IPO cycle.

The larger the buffer depth, the fewer PLC variables that can be traced, because there is a single, small, fixed pool of data slots for sending data samples from the PLC to NCK (64 data slots). Every PLC variable being traced is allocated as many data slots from the pool as the value of the buffer depth.

The single pool of data slots is shared by data collected at OB1, OB35, and OB40 (even though the buffer depths of OB1, OB35, and OB40 can be configured to be different from each other). It is also shared by all concurrent users of trace, even though the users might have no knowledge of one another.

11500	PREVENT_SYNACT_LOCK	N01, N09, -			S5,FBSY	
-	Protected synchronized actions	DWORD			PowerOn	
-						
-	2	0, 0	0	255	7/2	M

**Description:**

First and last IDs of a protected synchronized action area.

Synchronized actions with ID numbers in the protected area can no longer be

- overwritten
- disabled (CANCEL)
- locked (LOCK)

once they have been defined. Furthermore, protected synchronized actions cannot be locked by the PLC (LOCK). They are shown at the interface to the PLC as non-lockable.

Note:

The protection should be suspended while creating the synchronized actions to be protected, as otherwise a Power On will be necessary after every change in order to be able to redefine the logic. There is no area of protected synchronized actions with 0.0. The function is disabled. The values are read as absolute values, and over and under values can be given in any order.

11510	IPO_MAX_LOAD	N01, N05			-	
%	Max. permitted IPO load	DOUBLE			PowerOn	
-						
-	-	0.00	0.0	100.0	7/2	M

**Description:**

Enable utilization analysis via synchronized actions.

This MD11510 \$MN\_IPO\_MAX\_LOAD sets the IPO computing time (in % of the IPO cycle) after which the variable \$AN\_IPO\_LOAD\_LIMIT is to be set to TRUE. The variable is reset to FALSE if the value falls below this after having once exceeded it.

This diagnostics function is disabled if the machine data is 0.

11550	STOP_MODE_MASK			N01	V1	
-	Defines the stop behavior.			DWORD	PowerOn	
-						
-	-	0	0	0x1	7/2	M

**Description:** This MD describes the stop behavior of the NCK under certain conditions:

Bit no. Meaning

Bit 0 == 0 :=  
No stop if G codes G331/G332 are active and a path motion or G4 has also been programmed.

Bit 0 == 1 :=  
Same behavior as until SW version 6.4, i.e. a stop is possible during G331/G332.

Bits 1.....15  
Not assigned

11600	BAG_MASK			N01	K1,Z1	
-	Defines the mode group behavior			DWORD	PowerOn	
-						
-	-	0	0	0x3	7/2	M

**Description:** This MD describes the effect of the VDI signals on the channels of a mode group (BAG) in respect of ASUBs and interrupt routines.

Bit no. Hexadec. Meaning when bit set value

Bit0: 0x0 Normal response to mode group signals in all channels of the mode group (as SW 3)All channels switch into a program operating mode on interrupt.

Bit0: 0x1 No response of other mode group VDI signals in the channel in which an interrupt handling (ASUB) is running. (BAG-RESET, BAG-STOP. individual block types A and B, mode selection). Furthermore, there is an internal operating mode changeover only in those channels which have received an interrupt request.

Bit1: 0x1 There is an internal operating mode changeover only in those channels which have received an interrupt request.

This is similar to Bit0, however, mode group VDI signals effect the interrupt.

11602	ASUP_START_MASK			N01, -	K1,M3,TE3,TE7	
-	Ignore stop conditions for ASUB			DWORD	PowerOn	
-						
-	-	0	0	0xf	7/2	M

**Description:** This machine data defines which stop reasons are to be ignored on an ASUB start. The ASUB is started or the following stop reasons are ignored:

Bit 0 :

STOP reason: STOP key, M0 or M01

An ASUB is started immediately if NCK is in RESET status (or JOG mode) (no ASUB can be started in RESET/JOG without this bit).

Bit 1 :

Reserved! This bit was replaced by MD20105 \$MC\_PROG\_EVENT\_IGN\_REFP\_LOCK and MD20115 \$MC\_IGNORE\_REFP\_LOCK\_ASUP.

Bit 2:

Start allowed even if a read-in disable is active; in other words, the blocks of the ASUB program are loaded and executed immediately. This disables machine data IGNORE\_INHIBIT\_ASUP. The NCK behavior corresponds to the machine data content of IGNORE\_INHIBIT\_ASUP== FFFFFFFF.

If the bit is not set:

The ASUB is selected internally but is not processed until the read-in disable is canceled.

The assignment of the machine data IGNORE\_INHIBIT\_ASUP is evaluated.

If IGNORE\_INHIBIT\_ASUP = 0 also applies, then an ASUB is triggered internally immediately but the blocks of the ASUB program are not loaded until the read-in disable is canceled.

The path is decelerated immediately when the ASUB is triggered (except with option BLSYNC).

The read-in disable is set once more in the ASUB program.

Bit 3:

Notice:

The following function can always be activated in single-channel systems. Multi-channel systems require bit1 in MD11600 \$MN\_BAG\_MASK in addition. The function is active *o\_n\_l\_y* for those ASUBs that were activated from the cancelation program status (Reset channel status). The function is not active in multi-channel systems without MD11600 \$MN\_BAG\_MASK bit1.

If an ASUB is started automatically from JOG, the user may stop in the middle of the ASUB program. JOG mode is displayed continuously for the user. With bit 3 set, the user may jog in this situation. This is not possible without bit 3. In this case mode change is locked with alarm 16927. By pressing the Start key, the user can continue the ASUB program. As long as the ASUB program is running, the user is naturally not able to jog. After ASUB program end the user may jog again.

Bits 4 to 15:Reserved

Related to:

MD11604 \$MN\_ASUP\_START\_PRIO\_LEVEL

11604	ASUP_START_PRIO_LEVEL	N01,-	K1,TE3,TE7		
-	Priorities from which 'ASUP_START_MASK' is effective	DWORD	PowerOn		
-					
-	-	0	0	128	7/2 M

**Description:** This machine data defines the ASUB priority from which MD11602 \$MN\_ASUP\_START\_MASK is to be applied. MD11602 \$MN\_ASUP\_START\_MASK is applied from the level specified here up to the highest ASUB priority level 1.

Related to:

MD11602 \$MN\_ASUP\_START\_MASK

11610	ASUP_EDITABLE			N01	K1	
-	Activation of a user-specific ASUB program			DWORD	PowerOn	
-						
-	-	0	0	0x7	7/2	M

**Description:** This MD determines whether user-specific routine: `_N_ASUP_SPF` stored in directory `_N_CUS_DIR/` `_N_CMA_DIR` is to be used to process RET and REPOS. The user ASUB is searched for first in `_N_CUS_DIR`.

Value:      Meaning:

0      Routine `_N_ASUP_SPF` is not activated for either RET or REPOS.

Bit0 = 1User-specific routine `_N_ASUP_SPF` is executed for RET, the routine supplied by the system is executed for REPOS.

Bit1 = 1User-specific routine `_N_ASUP_SPF` is executed for REPOS, the routine supplied by the system is executed for RET

Bit0= + bit1 = 3User-specific routine `_N_ASUP_SPF` is executed for both RET and REPOS

Bit2 = 1User ASUB `_N_ASUP_SPF` is searched for first in `_N_CMA_DIR`

Related to:

MD11612 `$MN_ASUP_EDIT_PROTECTION_LEVEL`

References:

/IAD/ "Installation and Setup Guide"

11612	ASUP_EDIT_PROTECTION_LEVEL			N01	K1	
-	Protection level of the user-specific ASUB program			DWORD	PowerOn	
-						
-	-	2	0	7	7/2	M

**Description:** Protection level of the user-specific ASUB program for RET and/or REPOS. The data is active only if MD11610 `$MN_ASUP_EDITABLE` is set to a value other than 0.

This machine data defines the protection level of the program `_N_ASU_CUS`.

MD irrelevant for:

MD11610 `$MN_ASUP_EDITABLE` set to 0

Related to:

MD11610 `$MN_ASUP_EDITABLE`

11620	PROG_EVENT_NAME			EXP, N12	K1	
-	Program name for PROG_EVENT			STRING	PowerOn	
-						
-	-		-	-	7/2	M

**Description:** Name of the user program called by the "event-driven program calls" and "automatic ASUB start after block search" functions (MD11450 `$MN_SEARCH_RUN_MODE`, bit 1). `_N_PROG_EVENT_SPF` is the default setting. The default setting is activated if MD11620 `$MN_PROG_EVENT_NAME` includes a blank string.

If the machine data does not contain a blank string, then the syntax of the string is checked as in the case of a subprogram identifier. This means that the first two characters must be letters (not numbers) or underscores. If this is not the case, alarm 4010 is output during ramp-up.

The program must be located in a cycle directory. When it is called, the search runs through the cycle directories in accordance with the setting of `$MN_PROG_EVENT_PATH`.



The prefix (N) and the suffix (SPF) of the program name are added automatically if they have not been specified.

11622	PROG_EVENT_PATH			N01	-	
-	Call path for PROG_EVENT			BYTE	PowerOn	
-						
-	-	3	0	3	7/2	M

**Description:** Path on which the user program set with \$MN\_PROG\_EVENT\_NAME is called in response to an event-driven program call configured with \$MC\_PROG\_EVENT\_MASK:

0: /\_N\_CMA\_DIR  
 1: /\_N\_CUS\_DIR  
 2: /\_N\_CST\_DIR  
 3: Search path in the sequence /\_N\_CUS\_DIR, /\_N\_CMA\_DIR, and /\_N\_CST\_DIR

11640	ENABLE_CHAN_AX_GAP			N01, N11	K2	
-	Allow channel axis gaps in AXCONF_MACHAX_USED			DWORD	PowerOn	
-						
-	-	0x0	0	0x1	2/2	M

**Description:** Bit0 = 1  
 Machine data allows configuration of channel axis gaps in the MD20070 \$MC\_AXCONF\_MACHAX\_USED.  
 Permits following MD assignment:  
 \$AXCONF\_MACHAX\_USED[0] = 1 ; 1st MA is 1st axis in channel  
 \$AXCONF\_MACHAX\_USED[1] = 2 ; 2nd MA is 2nd axis in channel  
 \$AXCONF\_MACHAX\_USED[2] = 0 ; Channel axis gap  
 \$AXCONF\_MACHAX\_USED[3] = 3 ; 3rd MA is 3rd axis in channel  
 \$AXCONF\_MACHAX\_USED[4] = 0  
 C A U T I O N:  
 (BIT0 set with MD20070 \$MC\_AXCONF\_MACHAX\_USED):  
 If a geo axis is placed in a channel axis gap with MD20050 \$MC\_AXCONF\_GEOAX\_ASSIGN\_TAB[1]= 3, the control responds as with MD20050 \$MC\_AXCONF\_GEOAX\_ASSIGN\_TAB[1]= 0. This eliminates the geo axis!  
 Transformation machine data must not be assigned a channel axis number specified as a gap.  
 BIT1 - BIT31: not used.  
 Related to:  
 MD20080 \$MC\_AXCONF\_CHANAX\_NAME\_TAB,  
 MD20050 \$MC\_AXCONF\_GEOAX\_ASSIGN\_TAB,  
 MD20060 \$MC\_AXCONF\_GEOAX\_NAME\_TAB  
 MD20070 \$MC\_AXCONF\_MACHAX\_USED  
 MD24... \$MC\_TRAFO\_AXES\_IN...  
 MD24... \$MC\_TRAFO\_GEOAX\_ASSIGN\_TAB...

11717	D_NO_FCT_CYCLE_NAME			EXP, N12, N07	K1	
-	Subroutine name for D function replacement			STRING	PowerOn	
-						
-	-		-	-	7/2	M

**Description:** Cycle name for replacement routine of the D function.

If a D function is programmed in a part program block, then, depending on machine data MD10717 \$MN\_T\_NO\_FCT\_CYCLE\_NAME, MD10719 \$MN\_T\_NO\_FCT\_CYCLE\_MODE and MD10718 \$MN\_M\_NO\_FCT\_CYCLE\_PAR, the MD subprogram defined in MD11717 \$MN\_D\_NO\_FCT\_CYCLE\_NAME is called.

The programmed D number can be polled in the cycle via system variable \$C\_D / \$C\_D\_PROG.

MD11717 \$MN\_D\_NO\_FCT\_CYCLE\_NAME is only active in Siemens mode (G290). No more than one M/T/D function replacement can be active per part program line.

A modal subprogram call must not be programmed in the block with the D function replacement. Furthermore, neither subprogram return nor part program end are allowed.

In the event of a conflict alarm 14016 is output.

11750	NCK_LEAD_FUNCTION_MASK			N09	-	
-	Functions for master value coupling			DWORD	NEW CONF	
-						
-	-	0x00	0	0x10	1/1	M

**Description:** Special functions of the master value coupling are set with this MD. The MD is bit-coded, the following bits are assigned:

Bits 0-3:  
reserved

Bit 4 == 0:  
the following axis of a master value coupling decelerates independently on NC or mode group stop or channel-specific feed disable

Bit 4 == 1:  
the following axis of a master value coupling does not decelerate independently on NC or mode group stop or channel-specific feed disable

Bits 5-31:  
reserved

11752	NCK_TRAIL_FUNCTION_MASK			N09	-	
-	Functions for coupled motion			DWORD	NEW CONF	
-						
-	-	0x200	0	0x210	1/1	M

**Description:** Special functions for coupled motions are set with this MD. The MD is bit-coded; the following bits are assigned:

Bits 0-3:  
reserved

Bit 4 = 0:  
the following axis of a coupled axis grouping activated by a synchronized action decelerates independently on NC or mode group stop or channel-specific feed disable

Bit 4 = 1:  
the following axis of a coupled axis grouping activated by a synchronized action does not decelerate independently on NC or mode group stop or channel-specific feed disable

Bit 5-31:  
reserved

11756	NCK_EG_FUNCTION_MASK			N09	-	
-	Functions for Electronic Gear			DWORD	NEW CONF	
-						
-	-	0x0	0	0x2F	1/1	M

**Description:** This MD is used to set special functions of Electronic Gear (EG).  
The MD is bit-coded, the following bits are occupied:  
Bit 0 - 4:  
reserved  
Bit 5 = 0:  
Positions indicated in EGONSYN and EGONSYNE are evaluated according to setting G700 or G710 inch or metric that is valid in the currently machined part program block.  
Bit 5 = 1  
Positions indicated in EGONSYN and EGONSYNE are evaluated in the basic system involved.  
Bit 6 - 31:  
reserved

12000	OVR_AX_IS_GRAY_CODE			EXP, N10	V1,Z1	
-	Axis feedrate override switch Gray-coded			BOOLEAN	PowerOn	
-						
-	-	TRUE	-	-	7/2	M

**Description:** This machine data is used to adapt the axis feed override switch to the interface coding of the PLC interface.  
1: The 5 low-order bits of the PLC interface signal DB31, ... DBB0 (Feed override A-H) are interpreted as a Gray code. The value which is read corresponds to a switch setting. It is used as an index for selecting the correct override factor from the table of MD12010 \$MN\_OVR\_FACTOR\_AX\_SPEED [n].  
0: The feed override byte of the PLC interface is interpreted as a binary representation of the override value in percent (limit 200 percent).  
Related to:  
NC/PLC interface signal DB31, ... DBB0 (Feed override A-H), (axis-specific)  
MD12010 \$MN\_OVR\_FACTOR\_AX\_SPEED [n]  
(Evaluation of the axis feed override switch)

12010	OVR_FACTOR_AX_SPEED			EXP, N10	V1,Z1	
-	Evaluation of axis feedrate override switch			DOUBLE	PowerOn	
-						
-	31	0.00, 0.01, 0.02, 0.04, 0.06, 0.08, 0.10...	0.00	2.00	7/2	M

**Description:** Evaluation of the axis velocity override switch with gray-coded interface.  
Not relevant with:  
MD12000 \$MN\_OVR\_AX\_IS\_GRAY\_CODE = 0  
Related to:  
NC/PLC interface signal DB31, ... DBB0 (Feed override A-H), (axis-specific)

12020	OVR_FEED_IS_GRAY_CODE			EXP, N10	V1,Z1	
-	Path feedrate override switch Gray-coded			BOOLEAN	PowerOn	
-						
-	-	TRUE	-	-	7/2	M

**Description:**

This machine data is used to adapt the path feed override switch to the interface coding of the PLC interface.

1: The 5 low-order bits of the NC/PLC interface signal DB31, ... DBB0 (Feed override A-H) are interpreted as a Gray code. The value which is read corresponds to a switch setting. It is used as an index for selecting the correct override factor from the table of MD12030 \$MN\_OVR\_FACTOR\_FEEDRATE [n].

0: The feed override byte of the PLC interface is interpreted as a binary representation of the override value in percent (limit 200 percent).

Related to:

NC/PLC interface signal DB31, ... DBB0 (Feed override A-H)

MD12030 \$MN\_OVR\_FACTOR\_FEEDRATE [n]

(Evaluation of the path feed override switch)

12030	OVR_FACTOR_FEEDRATE			EXP, N10	V1,B1,Z1	
-	Evaluation of path feedrate override switch			DOUBLE	PowerOn	
-						
-	31	0.00, 0.01, 0.02, 0.04, 0.06, 0.08, 0.10...	0.00	2.00	7/2	M

**Description:**

Evaluation of the feedrate override switch with gray-coded interface.

Special function of the 31st value for the velocity control:

The setting of the 31st override value defines the dynamic reserves which take the velocity control to be an excessive increase in the path feed. The setting should correspond to the highest override factor actually used.

The function of the 31st value is thus identical to the effect of MD12100 \$MN\_OVR\_FACTOR\_LIMIT\_BIN when using the binary-coded interface.

Not relevant with:

MD12020 \$MN\_OVR\_FEED\_IS\_GRAY\_CODE = 0

Related to:

NC/PLC interface signal DB31, ... DBB0 (Feed override A-H)

12040	OVR_RAPID_IS_GRAY_CODE			EXP, N10	V1,Z1	
-	Rapid traverse override switch Gray-coded			BOOLEAN	PowerOn	
-						
-	-	TRUE	-	-	7/2	M

**Description:**

This machine data is used to adapt the rapid traverse override switch to the interface coding of the PLC interface.

1: The 5 low-order bits of the PLC interface signal DB21-30 DBB5 (Rapid traverse override A-H) are interpreted as a Gray code. The value which is read corresponds to a switch setting.

It is used as an index for selecting the correct override factor from the table of MD12050 \$MN\_OVR\_FACTOR\_RAPID\_TRA[n].

0: The rapid traverse override byte of the PLC interface is interpreted as a binary representation of the override value in percent (limit 200 percent).

Related to:

NC/PLC interface signal DB21-30 DBB5 (Rapid traverse override A-H)

MD12050 \$MN\_OVR\_FACTOR\_RAPID\_TRA[n]  
(Evaluation of the rapid traverse override switch)

12050	OVR_FACTOR_RAPID_TRA		EXP, N10	V1,Z1		
-	Evaluation of rapid traverse override switch		DOUBLE	PowerOn		
-						
-	31	0.00, 0.01, 0.02, 0.04, 0.06, 0.08, 0.10...	0.00	1.00	7/2	M

**Description:** Evaluation of the rapid traverse override switch with gray-coded interface.  
Not relevant with:  
MD12040 \$MN\_OVR\_RAPID\_IS\_GRAY\_CODE = 0  
Related to:  
NC/PLC interface signal DB21-30 DBB5 (Rapid traverse override A-H)

12060	OVR_SPIND_IS_GRAY_CODE		EXP, N10	V1,Z1		
-	Spindle override switch Gray-coded		BOOLEAN	PowerOn		
-						
-	-	TRUE	-	-	7/2	M

**Description:** This machine data is used to adapt the spindle speed override switch to the interface coding of the PLC interface.  
1: The 5 low-order bits of the "spindle speed override" PLC interface signal are interpreted as a Gray code. The value which is read corresponds to a switch setting. It is used as an index for selecting the correct override factor from the table of MD12070 \$MN\_OVR\_FACTOR\_SPIND\_SPEED [n].  
0: The spindle speed override byte of the PLC interface is interpreted as a binary representation of the override value in percent (limit 200 percent).  
Related to:  
NC/PLC interface signal DB31, ... DBB19 (Spindle speed override)  
MD12070 \$MN\_OVR\_FACTOR\_SPIND\_SPEED[n]  
(Evaluation of the spindle speed override switch)

12070	OVR_FACTOR_SPIND_SPEED		EXP, N10	V1,Z1		
-	Evaluation of spindle override switch		DOUBLE	PowerOn		
-						
-	31	0.5, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80...	0.00	2.00	7/2	M

**Description:** Evaluation of the spindle-specific override switch with Gray-coded interface.  
Special function of the 31st value for the velocity control:  
The setting of the 31st override value defines the dynamic reserves which take the velocity control to be an excessive increase in the spindle feed. The setting should correspond to the highest override factor actually used. The function of the 31st value is thus identical to the effect of MD12100 \$MN\_OVR\_FACTOR\_LIMIT\_BIN when using the binary-coded interface.  
Not relevant for:  
MD12060 \$MN\_OVR\_SPIND\_IS\_GRAY\_CODE = 0  
Related to:  
NC/PLC interface signal DB31, ... DBB19 (Spindle speed override)

## 1.3 NC machine data

12080	OVR_REFERENCE_IS_PROG_FEED	N10, N09	V1
-	Override reference speed	BOOLEAN	PowerOn
-			
-	-	TRUE	-
-	-	-	-
			7/2
			M

**Description:** The entry in this MD specifies whether the spindle override given by the IS refers to the speed limited by MD/SD or to the programmed speed.

1: Spindle override acts with reference to the programmed speed  
(programmed speed \_ spindle override 100%)

0: Spindle override acts on the speed limited by MD or SD  
(speed limited by MD/SD \_ spindle override 100%)

Related machine data:

A speed limitation is effected by the following MDs or SDs:

MD35100 \$MA\_SPIND\_VELO\_LIMIT Maximum spindle speed

MD35130 \$MA\_GEAR\_STEP\_MAX\_VELO\_LIMIT Maximum speed of gear stage

MD35160 \$MA\_SPIND\_EXTERN\_VELO\_LIMIT Spindle speed limitation by PLC

SD43220 \$\$SA\_SPIND\_MAX\_VELO\_G26 Maximum spindle speed

SD43230 \$\$SA\_SPIND\_MAX\_VELO\_LIMS Spindle speed limitation with G96

12082	OVR_REFERENCE_IS_MIN_FEED	N10, N09	V1
-	Specification of the reference of the path override	BOOLEAN	PowerOn
-			
-	-	FALSE	-
-	-	-	-
			7/2
			M

**Description:** The reference speed for the path feed override specified via the machine control panel can be set differently from the standard.

0: Standard:

The override is relative to the programmed feed.

1: Special case:

The override is relative to the programmed feed or to the path feed limit, depending on which resulting value is lower. In this way, even for a great feed reduction (due to the permissible axis dynamics), the effect of the override value (in the range 0 to 100%) is always visible.

12090	OVR_FUNCTION_MASK	N01, N10, N09	-
-	Selection of override specifications	DWORD	Reset
-			
-	-	0	0
-	-	0x01	0x01
			7/2
			M

**Description:** The functionality of the override switches can be affected by the bits.

Bit 0: = 0,

Standard: Spindle override active with G331/G332

= 1,

Path override is active instead of spindle override with G331/G332

(Tapping without compensating chuck)

12100	OVR_FACTOR_LIMIT_BIN	EXP, N10	V1, B1, Z1
-	Limitation for binary-coded override switch	DOUBLE	PowerOn
-			
-	-	1.2	0.0
-	-	2.0	2.0
			7/2
			M

**Description:** This machine data can be used as an additional limit for the override factor when using the binary-coded interface for path, axis and spindle feeds.

In this case, the maximum values

- 200% for channel-specific feed override
- 100% for channel-specific rapid traverse override
- 200% for axis-specific feed override
- 200% for spindle override

are replaced with the limit value entered in MD: OVR\_FACTOR\_LIMIT\_BIN when this value is lower.

Example: OVR\_FACTOR\_LIMIT\_BIN = 1.20

--> maximum override factor for

- channel-specific feed override =120%
- channel-specific rapid traverse override =100%
- axis-specific feed override =120%
- spindle override =120%

This value also defines the dynamic reserves maintained by the speed control for increasing the path and spindle feedrates.

References: /FB/, B1, "Continuous Path Mode, Exact Stop and Look Ahead"

12200	RUN_OVERRIDE_0		N01, N09	FBMA,V1,Z1	
-	Traversing response with override 0		BOOLEAN	PowerOn	
-					
-	-	FALSE	-	-	7/2 M

**Description:** = 0

Override 0 is active and means deceleration (JOG mode, safety function).

Bits 0 and 1 in MD32084 \$MA\_HANDWH\_STOP\_COND for hand wheels and in MD20624 \$MC\_HANDWH\_CHAN\_STOP\_COND for machine axes define whether the pulses are collected for geometry axes and contour handwheel.

= 1

Traversing with handwheels and in JOG mode with fixed feedrates is also possible with a 0 % override.

Related to:

MD32084 \$MA\_HANDWH\_STOP\_COND

MD20624 \$MC\_HANDWH\_CHAN\_STOP\_COND

12202	PERMANENT_FEED		N01, N09	Z1,V1	
mm/min	Fixed feedrates for linear axes		DOUBLE	Reset	
-					
-	4	0., 0., 0., 0.	-	-	7/2 M

**Description:** In AUTOMATIC mode:

After activating a fixed feedrate via an interface signal, traversing is done with a fixed feedrate instead of the programmed feedrate.

Note:

The fixed feedrate is also evaluated in continuous-path mode in order to optimize the overhead for the Look Ahead calculation. Unnecessarily high values should therefore be avoided. Enter zero if a fixed feedrate is not wanted

In JOG mode:

After activating a fixed feedrate via an interface signal, and traversing the linear axis with a traversing key, traversing proceeds in the selected direction with the fixed feedrate.

n = 0, 1, 2, 3 mean fixed feedrates 1, 2, 3, 4. The values must be entered in ascending order.

Special cases, errors, .....

1.3 NC machine data

The maximum velocity defined by MD32000 \$MA\_MAX\_AX\_VELO is active. An override setting of 100 % is assumed. MD12200 \$MN\_RUN\_OVERRIDE\_0 is active if the override is 0.

Related to:

MD12200 \$MN\_RUN\_OVERRIDE\_0

12204	PERMANENT_ROT_AX_FEED		N01, N09	V1
rev/min	Fixed feedrates for rotary axes		DOUBLE	Reset
-				
-	4	0., 0., 0., 0.	-	-
				7/2 M

**Description:**

Fixed feedrate values:

In AUTOMATIC mode:

After activating a fixed feedrate via an interface signal, traversing is done with a fixed feedrate instead of the programmed feedrate.

Note: PERMANENT\_ROT\_AX\_FEED is used instead of PERMANENT\_FEED for the path motion if all synchronously traversed axes in the current block are rotary axes. PERMANENT\_FEED applies if linear and rotary axes are to be synchronously traversed together.

The fixed feedrate is also evaluated in continuous-path mode in order to optimize the overhead for the Look Ahead calculation. Unnecessarily high values should therefore be avoided. Enter zero if a fixed feedrate is not wanted

In JOG mode:

After activating a fixed feedrate via an interface signal, and traversing the rotary axis with a traversing key, traversing proceeds in the selected direction with the fixed feedrate.

n = 0, 1, 2, 3 mean fixed feedrates 1, 2, 3, 4.

Special cases, errors, .....

The maximum velocity defined by MD32000 \$MA\_MAX\_AX\_VELO is active. An override setting of 100 % is assumed. MD12200 \$MN\_RUN\_OVERRIDE\_0 is active if the override is 0.

Related to:

MD12200 \$MN\_RUN\_OVERRIDE\_0

12205	PERMANENT_SPINDLE_FEED		N01, N09	FBMA
rev/min	Fixed feedrates for spindles		DOUBLE	Reset
-				
-	4	0., 0., 0., 0.	-	-
				7/2 M

**Description:**

Fixed feedrate values:

JOG: A spindle is traversed with a fixed feedrate by activating the traversing keys and activating the appropriate signals in the PLC interface.

The override is not active.

Depending upon MD12200 \$MN\_RUN\_OVERRIDE\_0, traversing also takes place with override 0.

The value defined by MD32000 \$MA\_MAX\_AX\_VELO is taken as the upper limit. If the fixed feedrate has a larger value, the aforementioned limiting value applies.



12300	CENTRAL_LUBRICATION			N01, N09		
-	Central lubrication active			BOOLEAN	PowerOn	
-						
-	-	FALSE	-	-	7/2	M

**Description:**

When a settable axial path has been exceeded, the axial VDI signals request a lubrication pulse from the PLC (compare MD33050 \$MA\_LUBRICATION\_DIST). These axial pulses act (by default) independently of each other.

If the machine construction requires a central lubrication, i.e. the lubrication pulse of any axis is acting on all axes, the corresponding path monitoring of all axes must be restarted after lubrication pulse output. This start synchronization of the monitoring is executed via MD12300 \$MN\_CENTRAL\_LUBRICATION=TRUE.

12510	NCU_LINKNO			N01	B3	
-	NCU number in an NCU cluster			DWORD	PowerOn	
-						
-	-	1	1	16	7/2	M

**Description:**

Number or name for identifying an NCU within an NCU grouping.

In an NCU grouping (NCU cluster), the NCUs are connected to one another by a link bus.

Related to:

MD18780 \$MN\_MM\_NCU\_LINK\_MASK

12520	LINK_TERMINATION			N01	B3	
-	NCU numbers for which bus termination resistances are activated			BYTE	PowerOn	
LINK						
-	2	0, 1	0	15	3/2	M

**Description:**

LINK\_TERMINATION defines with which NCUs the bus termination resistances for the timing circuit must be switched in through the link module.

Related to: MD18780 \$MN\_MM\_NCU\_LINK\_MASK

12540	LINK_BAUDRATE_SWITCH			N01	B3	
-	Link bus baud rate			DWORD	PowerOn	
LINK						
-	-	9	0	9	3/2	M

**Description:**

The assigned baud rate for the link communication is defined by the values entered:

Set value	Rate
0	9,600 kBd
1	19,200 kBd
2	45,450 kBd
3	93,750 kBd
4	187,000 kBd
5	500,000 kBd
6	1,500 MBd
7	3,000 MBd
8	6,000 MBd
9	12,000 MBd

1.3 NC machine data

Not relevant for:  
 Systems without link modules  
 Related to:  
 MD18780 \$MN\_MM\_NCU\_LINK\_MASK

12550	LINK_RETRY_CTR	N01			B3	
-	maximum number of message frame transmission retries	DWORD			PowerOn	
LINK						
-	-	4	1	15	3/2	M

**Description:** Maximum retry limit in cases of error.  
 Not relevant for:  
 Systems without link modules  
 Related to:  
 MD18780 \$MN\_MM\_NCU\_LINK\_MASK

12551	TIMEOUT_LINK_COMMUNICATION	EXP			-	
s	Wait time at start of link communication	DOUBLE			PowerOn	
-						
-	6	110.0, 60.0, 9.0, 60.0, 0.0, 0.0	110.0, 0.0, 0.0, 0.0, 0.0, 0.0	1000.0, 1000.0, 1000.0, 1000.0, 1000.0...	0/0	M

**Description:** Configuration data is exchanged between the individual NCUs during NCK ramp-up. For this purpose, the NCUs involved in data replication must be synchronized in time. The machine data specifies timeouts for data exchange. In the case of Solutionline this is achieved via PROFINET communication. During ramp-up this is standard Ethernet communication; IRT communication takes over subsequently. The significance of the individual elements is as follows:  
 Element 0: Timeout for the first synchronization for data replication during ramp-up  
 Element 1: Timeout for synchronization for isochronous transition to cyclic operation  
 Element 2: Timeout for a non-real-time telegram during ramp-up (Solutionline only)  
 Element 3: Timeout until the PROFINET software switches to the 'Operate' state (Solutionline only)

12552	LINK_LIFECYCLE_MAX_LOOP	EXP			-	
-	Maximum number of loops for synchronization of the link life cycle.	DWORD			PowerOn	
-						
-	-	5000	-	-	0/0	M

**Description:** During NCK ramp-up, the NCK switches to the cyclic plane at a certain point in time (in other words, the IPO and servo tasks start to work). If these points in time deviate too significantly in the NCK link grouping, alarm 280003 will be output. This wait time can be increased in IPO clock steps by increasing this machine data.



1.3 NC machine data

The actually assigned axis at a specific time is dependent upon the container rotation status. All channels that access an axis container use the same axis entries stored there. If channels of various NCUs access this container, then inter-NCU consistency must be ensured.

Example:

```
CHANDATA(1)
$MC_MACHAX_USED[4]=9
$MN_AXCONF_LOGIC_MACHAX_TAB[8]=CL1_SL1
$MN_AXCT_AXCONF_ASSIGN_TAB1[0]="NC1_AX1"
$MN_AXCT_AXCONF_ASSIGN_TAB1[1]="NC2_AX1"
```

This machine data is distributed via NCU-link.

Related to:

```
MD10002 $MN_AXCONF_LOGIC_MACHAX_TAB
```

12703	AXCT_AXCONF_ASSIGN_TAB3	N01	B3
-	Assignment of an axis container location	STRING	PowerOn
CTDE			
-	32	...	-
			3/2 M

**Description:** Assignment of an axis container location (slot s) to a machine axis or link axis. A maximum of 32 locations can be assigned axes in an axis container.

Method of writing entries:

```
NCm_AXn          with NCU number m: 1..16
                  and machine axis address n: 1... 31
```

Example:

```
NC2_AX1 ; The axis is on the NCU2 and is the
          ; 1st machine axis there
AX5     ; local axis 5, with only one NCU
          ; the axis container mechanism is only used by
          ; several channels of one NCU.
```

The reference to an axis container location of a channel is determined by the definitions in MD20070 \$MC\_AXCONF\_MACHAX\_USED and MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB.

The axis actually assigned at a given time is dependent upon the container rotation status. All channels that access an axis container use the same axis entries stored there. If channels from various NCUs access this container, ensure that there is consistency between the NCUs.

Example:

```
CHANDATA(1)
$MC_MACHAX_USED[4]=9      $MN_AXCONF_LOGIC_MACHAX_TAB[8]=CL1_SL1
$MN_AXCT_AXCONF_ASSIGN_TAB1[0]="NC1_AX1"
$MN_AXCT_AXCONF_ASSIGN_TAB1[1]="NC2_AX1"
```

This machine data is distributed over the NCU-link.

Related to:

```
MD10002 $MN_AXCONF_LOGIC_MACHAX_TAB
```

12704	AXCT_AXCONF_ASSIGN_TAB4			N01	B3	
-	Assignment of an axis container location			STRING	PowerOn	
CTDE						
-	32	...	-	-	3/2	M

**Description:** Assignment of an axis container location (slot s) to a machine axis or link axis. A maximum of 32 locations can be assigned axes in an axis container. Method of writing entries:

```
NCm_AXn          with NCU number m: 1..16
                  and machine axis address n: 1... 31
```

Example:

```
NC2_AX1 ; The axis is on the NCU2 and is the
          ; 1st machine axis there

AX5      ; local axis 5, with only one NCU
          ; the axis container mechanism is only used by
          ; several channels from one NCU.
```

The reference to an axis container location of a channel is determined by the definitions in MD20070 \$MC\_AXCONF\_MACHAX\_USED and MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB.

The axis actually assigned at a given time is dependent upon the container rotation status. All channels that access an axis container use the same axis entries stored there. If channels from various NCUs access this container, ensure that there is consistency between the NCUs!

Example:

```
CHANDATA(1)
$MC_MACHAX_USED[4]=9      $MN_AXCONF_LOGIC_MACHAX_TAB[8]=CL1_SL1
$MN_AXCT_AXCONF_ASSIGN_TAB1[0]="NC1_AX1"
$MN_AXCT_AXCONF_ASSIGN_TAB1[1]="NC2_AX1"
```

This machine data is distributed over the NCU-link.

Related to:

```
MD10002 $MN_AXCONF_LOGIC_MACHAX_TAB
```

12705	AXCT_AXCONF_ASSIGN_TAB5			N01	B3	
-	Assignment of an axis container location			STRING	PowerOn	
CTDE						
-	32	...	-	-	3/2	M

**Description:** Assignment of an axis container location (slot s) to a machine axis or link axis. A maximum of 32 locations can be assigned axes in an axis container. Method of writing entries:

```
NCm_AXn          with NCU number m: 1..16
                  and machine axis address n: 1... 31
```

Example:

```
NC2_AX1 ; The axis is on the NCU2 and is the
          ; 1st machine axis there

AX5      ; local axis 5, with only one NCU
          ; the axis container mechanism is only used by
          ; several channels of one NCU.
```

The reference to an axis container location of a channel is determined by the definitions in MD20070 \$MC\_AXCONF\_MACHAX\_USED and MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB.

1.3 NC machine data

The axis actually assigned at a given time is dependent upon the container rotation status. All channels that access an axis container use the same axis entries stored there. If channels from various NCUs access this container, ensure that there is consistency between the NCUs!

Example:

```
CHANDATA(1)
$MC_MACHAX_USED[4]=9
$MN_AXCONF_LOGIC_MACHAX_TAB[8]=CL1_SL1
$MN_AXCT_AXCONF_ASSIGN_TAB1[0]="NC1_AX1"
$MN_AXCT_AXCONF_ASSIGN_TAB1[1]="NC2_AX1"
```

This machine data is distributed over the NCU-link.

Related to:

```
MD10002 $MN_AXCONF_LOGIC_MACHAX_TAB
```

12706	AXCT_AXCONF_ASSIGN_TAB6	N01	B3
-	Assignment of an axis container location	STRING	PowerOn
CTDE			
-	32	...	-
			3/2 M

**Description:** Assignment of an axis container location (slot s) to a machine axis or link axis. A maximum of 32 locations can be assigned axes in an axis container.

Method of writing entries:

```
NCm_AXn          with NCU number m: 1..16
                  and machine axis address n: 1... 31
```

Example:

```
NC2_AX1          ; The axis is on the NCU2 and is the
                  ; 1st machine axis there
AX5              ; local axis 5, with only one NCU
                  ; the axis container mechanism is only used by
                  ; several channels from one NCU.
```

The reference to an axis container location of a channel is determined by the definitions in MD20070 \$MC\_AXCONF\_MACHAX\_USED and MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB.

The axis actually assigned at a given time is dependent upon the container rotation status. All channels that access an axis container use the same axis entries stored there. If channels from various NCUs access this container, ensure that there is consistency between the NCUs!

Example:

```
CHANDATA(1)
$MC_MACHAX_USED[4]=9      $MN_AXCONF_LOGIC_MACHAX_TAB[8]=CL1_SL1
$MN_AXCT_AXCONF_ASSIGN_TAB1[0]="NC1_AX1"
$MN_AXCT_AXCONF_ASSIGN_TAB1[1]="NC2_AX1"
```

This machine data is distributed over the NCU-link.

Related to:

```
MD10002 $MN_AXCONF_LOGIC_MACHAX_TAB
```

12707	AXCT_AXCONF_ASSIGN_TAB7			N01	B3	
-	Assignment of an axis container location			STRING	PowerOn	
CTDE						
-	32	...	-	-	3/2	M

**Description:** Assignment of an axis container location (slot s) to a machine axis or link axis. A maximum of 32 locations can be assigned axes in an axis container.

Method of writing entries:

NCm\_AXn               with NCU number m: 1..16  
                          and machine axis address n: 1... 31

Example:

```
NC2_AX1               ; The axis is on the NCU2 and is the
                          ; 1st machine axis there

AX5                    ; local axis 5, with only one NCU
                          ; the axis container mechanism is only used by
                          ; several channels from one NCU.
```

The reference to an axis container location of a channel is determined by the definitions in MD20070 \$MC\_AXCONF\_MACHAX\_USED and MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB.

The axis actually assigned at a given time is dependent upon the container rotation status. All channels that access an axis container use the same axis entries stored there. If channels from various NCUs access this container, ensure that there is consistency between the NCUs!

Example:

```
CHANDATA(1)
$MC_MACHAX_USED[4]=9     $MN_AXCONF_LOGIC_MACHAX_TAB[8]=CL1_SL1
$MN_AXCT_AXCONF_ASSIGN_TAB1[0]="NC1_AX1"
$MN_AXCT_AXCONF_ASSIGN_TAB1[1]="NC2_AX1"
```

This machine data is distributed over the NCU-link.

Related to:

MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB

12708	AXCT_AXCONF_ASSIGN_TAB8			N01	B3	
-	Assignment of an axis container location			STRING	PowerOn	
CTDE						
-	32	...	-	-	3/2	M

**Description:** Assignment of an axis container location (slot s) to a machine axis or link axis. A maximum of 32 locations can be assigned axes in an axis container.

Method of writing entries:

NCm\_AXn               with NCU number m: 1..16  
                          and machine axis address n: 1... 31

Example:

```
NC2_AX1               ; The axis is on the NCU2 and is the
                          ; 1st machine axis there

AX5                    ; local axis 5, with only one NCU
                          ; the axis container mechanism is only used by
                          ; several channels from one NCU.
```

The reference to an axis container location of a channel is determined by the definitions in MD20070 \$MC\_AXCONF\_MACHAX\_USED and MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB.

1.3 NC machine data

The axis actually assigned at a given time is dependent upon the container rotation status. All channels that access an axis container use the same axis entries stored there. If channels from various NCUs access this container, ensure that there is consistency between the NCUs!

Example:

```
CHANDATA(1)
$MC_MACHAX_USED[4]=9      $MN_AXCONF_LOGIC_MACHAX_TAB[8]=CL1_SL1
$MN_AXCT_AXCONF_ASSIGN_TAB1[0]="NC1_AX1"
$MN_AXCT_AXCONF_ASSIGN_TAB1[1]="NC2_AX1"
```

This machine data is distributed over the NCU-link.

Related to:

MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB

12709	AXCT_AXCONF_ASSIGN_TAB9	N01	B3
-	Assignment of an axis container location	STRING	PowerOn
CTDE			
-	32	...	-
			3/2
			M

**Description:** Assignment of an axis container location (slot s) to a machine axis or link axis. A maximum of 32 locations can be assigned axes in an axis container.

Method of writing entries:

NCm\_AXn with NCU number m: 1..16  
and machine axis address n: 1... 31

Example:

```
NC2_AX1 ; The axis is on the NCU2 and is the
        ; 1st machine axis there
AX5     ; local axis 5, with only one NCU
        ; the axis container mechanism is only used by
        ; several channels from one NCU.
```

The reference to an axis container location of a channel is determined by the definitions in MD20070 \$MC\_AXCONF\_MACHAX\_USED and MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB.

The axis actually assigned at a given time is dependent upon the container rotation status. All channels that access an axis container use the same axis entries stored there. If channels from various NCUs access this container, ensure that there is consistency between the NCUs!

Example:

```
CHANDATA(1)
$MC_MACHAX_USED[4]=9      $MN_AXCONF_LOGIC_MACHAX_TAB[8]=CL1_SL1
$MN_AXCT_AXCONF_ASSIGN_TAB1[0]="NC1_AX1"
$MN_AXCT_AXCONF_ASSIGN_TAB1[1]="NC2_AX1"
```

This machine data is distributed over the NCU-link.

Related to:

MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB

12710	AXCT_AXCONF_ASSIGN_TAB10	N01	B3
-	Assignment of an axis container location	STRING	PowerOn
CTDE			
-	32	...	-
			3/2
			M

**Description:** Assignment of an axis container location (slot s) to a machine axis or link axis. A maximum of 32 locations can be assigned axes in an axis container.



Method of writing entries:

```
NCm_AXn          with NCU number m: 1..16
                  and machine axis address n: 1... 31
```

Example:

```
NC2_AX1          ; The axis is on the NCU2 and is the
                  ; 1st machine axis there

AX5              ; local axis 5, with only one NCU
                  ; the axis container mechanism is only used by
                  ; several channels from one NCU.
```

The reference to an axis container location of a channel is determined by the definitions in MD20070 \$MC\_AXCONF\_MACHAX\_USED and MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB.

The axis actually assigned at a given time is dependent upon the container rotation status. All channels that access an axis container use the same axis entries stored there. If channels from various NCUs access this container, ensure that there is consistency between the NCUs!

Example:

```
CHANDATA(1)
$MC_MACHAX_USED[4]=9      $MN_AXCONF_LOGIC_MACHAX_TAB[8]=CL1_SL1
$MN_AXCT_AXCONF_ASSIGN_TAB1[0]="NC1_AX1"
$MN_AXCT_AXCONF_ASSIGN_TAB1[1]="NC2_AX1"
```

This machine data is distributed over the NCU-link.

Related to:

```
MD10002 $MN_AXCONF_LOGIC_MACHAX_TAB
```

12711	AXCT_AXCONF_ASSIGN_TAB11	N01	B3
-	Assignment of an axis container location	STRING	PowerOn
CTDE			
-	32	...	-
			3/2
			M

**Description:** Assignment of an axis container location (slot s) to a machine axis or link axis. A maximum of 32 locations can be assigned axes in an axis container.

Method of writing entries:

```
NCm_AXn          with NCU number m: 1..16
                  and machine axis address n: 1... 31
```

Example:

```
NC2_AX1          ; The axis is on the NCU2 and is the
                  ; 1st machine axis there

AX5              ; local axis 5, with only one NCU
                  ; the axis container mechanism is only used by
                  ; several channels from one NCU.
```

The reference to an axis container location of a channel is determined by the definitions in MD20070 \$MC\_AXCONF\_MACHAX\_USED and MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB.

The axis actually assigned at a given time is dependent upon the container rotation status. All channels that access an axis container use the same axis entries stored there. If channels from various NCUs access this container, ensure that there is consistency between the NCUs!

Example:

```
CHANDATA(1)
$MC_MACHAX_USED[4]=9      $MN_AXCONF_LOGIC_MACHAX_TAB[8]=CL1_SL1
$MN_AXCT_AXCONF_ASSIGN_TAB1[0]="NC1_AX1"
$MN_AXCT_AXCONF_ASSIGN_TAB1[1]="NC2_AX1"
```

This machine data is distributed over the NCU-link.

Related to:

MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB

12712	AXCT_AXCONF_ASSIGN_TAB12	N01	B3
-	Assignment of an axis container location	STRING	PowerOn
CTDE			
-	32	...	-
			3/2
			M

**Description:** Assignment of an axis container location (slot s) to a machine axis or link axis. A maximum of 32 locations can be assigned axes in an axis container.

Method of writing entries:

NCm\_AXn                 with NCU number m: 1..16  
                              and machine axis address n: 1... 31

Example:

```
NC2_AX1                 ; The axis is on the NCU2 and is the
                              ; 1st machine axis there
AX5                       ; local axis 5, with only one NCU
                              ; the axis container mechanism is only used by
                              ; several channels from one NCU.
```

The reference to an axis container location of a channel is determined by the definitions in MD20070 \$MC\_AXCONF\_MACHAX\_USED and MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB.

The axis actually assigned at a given time is dependent upon the container rotation status. All channels that access an axis container use the same axis entries stored there. If channels from various NCUs access this container, ensure that there is consistency between the NCUs!

Example:

```
CHANDATA(1)
$MC_MACHAX_USED[4]=9      $MN_AXCONF_LOGIC_MACHAX_TAB[8]=CL1_SL1
$MN_AXCT_AXCONF_ASSIGN_TAB1[0]="NC1_AX1"
$MN_AXCT_AXCONF_ASSIGN_TAB1[1]="NC2_AX1"
```

This machine data is distributed over the NCU-link.

Related to:

MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB

12713	AXCT_AXCONF_ASSIGN_TAB13	N01	B3
-	Assignment of an axis container location	STRING	PowerOn
CTDE			
-	32	...	-
			3/2
			M

**Description:** Assignment of an axis container location (slot s) to a machine axis or link axis. A maximum of 32 locations can be assigned axes in an axis container.

Method of writing entries:

NCm\_AXn                 with NCU number m: 1..16  
                              and machine axis address n: 1... 31

Example:

```
NC2_AX1      ; The axis is on the NCU2 and is the
              ; 1st machine axis there

AX5          ; local axis 5, with only one NCU
              ; the axis container mechanism is only used by
              ; several channels from one NCU.
```

The reference to an axis container location of a channel is determined by the definitions in

MD20070 \$MC\_AXCONF\_MACHAX\_USED and MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB.

The axis actually assigned at a given time is dependent upon the container rotation status. All channels that access an axis container use the same axis entries stored there. If channels from various NCUs access this container, ensure that there is consistency between the NCUs!

Example:

```
CHANDATA(1)
$MC_MACHAX_USED[4]=9      $MN_AXCONF_LOGIC_MACHAX_TAB[8]=CL1_SL1
$MN_AXCT_AXCONF_ASSIGN_TAB1[0]="NC1_AX1"
$MN_AXCT_AXCONF_ASSIGN_TAB1[1]="NC2_AX1"
```

This machine data is distributed over the NCU-link.

Related to:

MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB

12714	AXCT_AXCONF_ASSIGN_TAB14	N01	B3
-	Assignment of an axis container location	STRING	PowerOn
CTDE			
-	32	...	-
			3/2
			M

**Description:** Assignment of an axis container location (slot s) to a machine axis or link axis. A maximum of 32 locations can be assigned axes in an axis container.

Method of writing entries:

```
NCm_AXn      with NCU number m: 1..16
              and machine axis address n: 1... 31
```

Example:

```
NC2_AX1      ; The axis is on the NCU2 and is the
              ; 1st machine axis there

AX5          ; local axis 5, with only one NCU
              ; the axis container mechanism is only used by
              ; several channels from one NCU.
```

The reference to an axis container location of a channel is determined by the definitions in MD20070 \$MC\_AXCONF\_MACHAX\_USED and MD10002

\$MN\_AXCONF\_LOGIC\_MACHAX\_TAB.

The axis actually assigned at a given time is dependent upon the container rotation status. All channels that access an axis container use the same axis entries stored there. If channels from various NCUs access this container, ensure that there is consistency between the NCUs!

Example:

```
CHANDATA(1)
$MC_MACHAX_USED[4]=9      $MN_AXCONF_LOGIC_MACHAX_TAB[8]=CL1_SL1
$MN_AXCT_AXCONF_ASSIGN_TAB1[0]="NC1_AX1"
$MN_AXCT_AXCONF_ASSIGN_TAB1[1]="NC2_AX1"
```

This machine data is distributed over the NCU-link.

1.3 NC machine data

Related to:  
MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB

12715	AXCT_AXCONF_ASSIGN_TAB15	N01	B3
-	Assignment of an axis container location	STRING	PowerOn
CTDE			
-	32	...	-
			3/2
			M

**Description:** Assignment of an axis container location (slot s) to a machine axis or link axis. A maximum of 32 locations can be assigned axes in an axis container.

Method of writing entries:

NCm\_AXn with NCU number m: 1..16  
and machine axis address n: 1... 31

Example:

NC2\_AX1 ; The axis is on the NCU2 and is the  
; 1st machine axis there  
AX5 ; local axis 5, with only one NCU  
; the axis container mechanism is only used by  
; several channels from one NCU.

The reference to an axis container location of a channel is determined by the definitions in MD20070 \$MC\_AXCONF\_MACHAX\_USED and MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB.

The axis actually assigned at a given time is dependent upon the container rotation status. All channels that access an axis container use the same axis entries stored there. If channels from various NCUs access this container, ensure that there is consistency between the NCUs!

Example:

CHANDATA(1)  
\$MC\_MACHAX\_USED[4]=9 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB[8]=CL1\_SL1  
\$MN\_AXCT\_AXCONF\_ASSIGN\_TAB1[0]="NC1\_AX1"  
\$MN\_AXCT\_AXCONF\_ASSIGN\_TAB1[1]="NC2\_AX1"

This machine data is distributed over the NCU-link.

Related to:  
MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB

12716	AXCT_AXCONF_ASSIGN_TAB16	N01	B3
-	Assignment of an axis container location	STRING	PowerOn
CTDE			
-	32	...	-
			3/2
			M

**Description:** Assignment of an axis container location (slot s) to a machine axis or link axis. A maximum of 32 locations can be assigned axes in an axis container.

Method of writing entries:

NCm\_AXn with NCU number m: 1..16  
and machine axis address n: 1... 31

Example:

NC2\_AX1 ; The axis is on the NCU2 and is the  
; 1st machine axis there  
AX5 ; local axis 5, with only one NCU  
; the axis container mechanism is only used by  
; several channels from one NCU.

The reference to an axis container location of a channel is determined by the definitions in MD20070 \$MC\_AXCONF\_MACHAX\_USED and MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB.

The axis actually assigned at a given time is dependent upon the container rotation status. All channels that access an axis container use the same axis entries stored there. If channels from various NCUs access this container, ensure that there is consistency between the NCUs!

Example:

CHANDATA(1)

\$MC\_MACHAX\_USED[4]=9 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB[8]=CL1\_SL1

\$MN\_AXCT\_AXCONF\_ASSIGN\_TAB1[0]="NC1\_AX1"

\$MN\_AXCT\_AXCONF\_ASSIGN\_TAB1[1]="NC2\_AX1"

This machine data is distributed over the NCU-link.

Related to:

MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB

12750	AXCT_NAME_TAB			N01	B3	
-	Axis container identifier			STRING	PowerOn	
CTDE						
-	16	CT1, CT2, CT3, CT4, CT5, CT6...	-	-	1/1	M

**Description:** List of axis container identifiers

In addition to the channel identifier of an axis, the axis container identifier, which can be defined by the user here, can also be used as an axis container name for e.g. a rotation of an axis container (AXCTSWE(CT1)).

12760	AXCT_FUNCTION_MASK			N09	-	
-	Functions for the axis container			DWORD	NEW CONF	
-						
-	-	0x0	0	0x1	1/1	M

**Description:** This MD is used to set the specific functions for the axis container.

The MD is bit-coded, the following bits are assigned:

Bit 0 = 0: For a direct axis container switch (AXCTSWED), all other channels must be in RESET status.

Bit 0 = 1: For a direct axis container switch (AXCTSWED), only those other channels which have interpolation right on axes of the axis container must be in RESET status.

12970	PLC_DIG_IN_LOGIC_ADDRESS			N10	-	
-	Logical start address of the digital PLC input address			DWORD	PowerOn	
-						
-	-	0	0	1023	0/0	M

**Description:** Logical start address of the digital input addresses of the PLC

Related to:

MD12971 \$MN\_PLC\_DIG\_IN\_NUM

12971	PLC_DIG_IN_NUM			N10	-	
-	Number of digital input addresses			DWORD	PowerOn	
-						
-	-	64	1	1023	0/0	M

**Description:** Number of digital input addresses as from the start address

1.3 NC machine data

Related to:  
MD12970 \$MN\_PLC\_DIG\_IN\_LOGIC\_ADDRESS

12974	PLC_DIG_OUT_LOGIC_ADDRESS	N10	-
-	Logical start address of the digital PLC output addresses	DWORD	PowerOn
-			
-	-	0	0
		1023	0/0
			M

**Description:** Logical start address of the digital output addresses of the PLC  
Related to:  
MD12975 \$MN\_PLC\_DIG\_OUT\_NUM

12975	PLC_DIG_OUT_NUM	N10	-
-	Number of digital output addresses	DWORD	PowerOn
-			
-	-	48	1
		1023	0/0
			M

**Description:** Number of digital output addresses as from the start address

12978	PLC_ANA_IN_LOGIC_ADDRESS	N10	-
-	Logical start address of the analog PLC input addresses	DWORD	PowerOn
-			
-	-	0	0
		1023	0/0
			M

**Description:** Logical start address of the analog input addresses of the PLC  
Related to:  
MD12979 \$MN\_PLC\_ANA\_IN\_NUM

12979	PLC_ANA_IN_NUM	N10	-
-	Number of analog input addresses	DWORD	PowerOn
-			
-	-	0	0
		1023	0/0
			M

**Description:** Number of analog input addresses as from the start address  
Related to:  
MD12978 \$MN\_PLC\_ANA\_IN\_LOGIC\_ADDRESS

12982	PLC_ANA_OUT_LOGIC_ADDRESS	N10	-
-	Logical start address of the analog PLC output addresses	DWORD	PowerOn
-			
-	-	0	0
		1023	0/0
			M

**Description:** Logical start address of the analog output addresses of the PLC  
Related to:  
MD12983 \$MN\_PLC\_ANA\_OUT\_NUM

12983	PLC_ANA_OUT_NUM	N10	-
-	Number of analog output addresses	DWORD	PowerOn
-			
-	-	0	0
		1023	0/0
			M

**Description:** Number of analog output addresses as from the start address  
Related to:  
MD12982 \$MN\_PLC\_ANA\_OUT\_LOGIC\_ADDRESS

13050	DRIVE_LOGIC_ADDRESS			N04, N10	G2	
-	Logical drive addresses			DWORD	PowerOn	
-						
-	31	4100, 4140, 4180, 4220, 4260, 4300, 4340...	258	16383	7/2	M

**Description:** For PROFIdrive only:  
Logical I/O addresses of the PROFIdrive drives on the PROFIBUS/PROFINET. An address is assigned to a drive.  
This MD is the link to the description of the PROFIBUS/PROFINET configuration in SDB.  
The MD value is the address index of the logical I/O drive address assigned with HW-Config (SIMATIC Manager S7).  
Example:  
DRIVE\_LOGIC\_ADDRESS[1] = 272 (The start address 272 is assigned to drive 1.)  
The SDB defines the logical I/O address of the drives on the PROFIBUS/PROFINET. An address is assigned to a drive or to a slave.  
The address index is used for actual-value and setpoint-value assignment (MD30220 \$MA\_ENC\_MODULE\_NR[n], MD30110 \$MA\_CTRL\_OUT\_MODULE\_NR[n]).  
Note:  
The same drive (I/O address) must be assigned to the MD30220 \$MA\_ENC\_MODULE\_NR[0] and MD30110 \$MA\_CTRL\_OUT\_MODULE\_NR[0] of a machine axis.  
Each drive or slave must be assigned to a single logical address index.  
The index [n] of the machine data has the following coding: [Drive index]:  
Drive 1 -->n=0  
Drive 2 -->n=1,

13060	DRIVE_TELEGRAM_TYPE			N04, N10	G2	
-	Standard message frame type for PROFIdrive			DWORD	PowerOn	
-						
-	31	116, 116, 116, 116, 116, 116, 116, 116...	-	-	7/2	M

**Description:** For PROFIdrive only:  
Standard telegram type for PROFIdrive axes:  
0 = No standard type, user-defined  
(telegram type 103 is then used internally in the NCK, whereby other process data can be added.)  
1... 6 = PROFIdrive type  
101...107 = SIEMENS type  
116 = SIEMENS type as 106 plus trace data  
118 = SIEMENS type as 116, but use of encoders 2+3  
136 = SIEMENS type as 116 plus torque feedforward control  
138 = SIEMENS type as 136, but use of encoders2+3  
139 = SIEMENS type telegram specifically for Weiss spindle functionality  
201...203 = internal type  
Notes: Alarm 26015 is issued with reference to this machine data

1.3 NC machine data

if the telegram configuration exhibits inconsistencies, i.e. if the telegram type selected on the NCK does not match the telegram type set on the drive (see parameter P922) and the process data configuration does not match (see parameters P923, P915, P916). The check for telegram configuration errors can be disabled using MD DRIVE\_FUNCTION\_MASK bit 15.

The SIEMENS telegram types lxx must be operated in the SINUMERIK context in 611U interface mode.

13070	DRIVE_FUNCTION_MASK		N04, N10	G2		
-	PROFIdrive expansion functions		DWORD	PowerOn		
-						
-	31	2, 2, 2, 2, 2, 2, 2...	-	-	7/2	M

**Description:** For PROFIdrive only:  
 Bit-coded mask for skipping the scope of available functions for PROFIdrive axes expected by the NCK.  
 Meaning of set bits:  
 Bit 0: Deactivation of axial drive alarm display  
     Note: the effect of this bit may be hidden, depending on the value in MD13140 \$MN\_PROFIBUS\_ALARM\_ACCESS.  
 Bit 1: Deactivation of 611U description file intermediate storage in the NCK  
 Bit 2: Deactivation of axial encoder driver parameter accesses  
 Bit 3: Deactivation of axial output driver parameter accesses  
 Bit 4: Reserved, free (previously activation of DSC bits)  
 Bit 5: Deactivation of the 611U-specific drive parking (STW2.7/STA2.7)  
 Bit 6: Deactivation of the 611U-specific travel to fixed stop (STW2.8/STA2.8)  
 Bit 7: Deactivation of the 611U-specific motor switching int. (STW2.9 to 2.11)  
 Bit 8: Deactivation of the 611U-specific ramp block (STW1.11+13)  
 Bit 9: Deactivation of the 611U-specific function generator bits (STW1.8/STA1.13)  
 Bit 10: Deactivation of the control of the holding brake (STW1.12 / STA2.5)  
 Bit 11: Deactivation of the effect of OFF2/OFF3 on DB31, ... DBX93.5 (Drive Ready)  
 Bit 12: Deactivation of the error/warning class SINAMICS (STA1.11 to STA1.12)  
 Bit 13: Drive parking simulation (STA2.7 = STW2.7)  
 Bit 14: Selection of non-cyclical communication 0 = DPT 1 = DPV1  
 Bit 15: Deactivation of the consistency check of the PROFIdrive message frame configuration  
 Configuration of bits 5 - 10, which is new for SW 6.3 and higher, allows adaptation of certain control or status bits that are not standardized in the PROFIdrive profile. The bits may have a different significance and effect in the default setting of third-party drives.

13080	DRIVE_TYPE_DP		EXP	G2		
-	PROFIBUS/PROFINET drive type		BYTE	PowerOn		
-						
-	31	0, 0, 0, 0, 0, 0, 0...	0	4	7/2	M

**Description:** MD is relevant to PROFIdrive drives at the PROFIBUS/PROFINET:  
 Drive type:  
 0: No drive or drive type unknown (default), software-internally treated as:  
     1: FDD drive (SRM: Synchronous rotary drive)



- 2: MSD drive (ARM: Asynchronous rotary drive)  
 3: Linear drive  
 4: Analog drive (no automatic entry)

**Note:**

In general, the drive type is entered automatically with Siemens drives as soon as the drives start operating.

With non-Siemens drives (at least with linear drives) the value must be entered manually if automatic drive recognition is not possible.

13100	DRIVE_DIAGNOSIS		EXP, N05	IAD,Kap.3		
-	Diagnostics drive link		DWORD	PowerOn		
-						
-	9	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/2	M

**Description:**

13110	PROFIBUS_TRACE_ADDRESS		EXP	-		
-	PROFIBUS/PROFINET trace of I/O slots		DWORD	NEW CONF		
-						
-	14	0, 0, 0, 0, 0, 0, 0, 0...	-	-	2/2	M

**Description:** For PROFIBUS/PROFINET only:  
 Logical I/O address that is to be recorded.

13111	PROFIBUS_TRACE_TYPE		EXP	-		
-	PROFIBUS/PROFINET trace settings		DWORD	NEW CONF		
-						
-	-	0	0	3	2/2	M

**Description:** For PROFIBUS/PROFINET only:  
 0: Recording to the part program memory /\_N\_MPF\_DIR/\_N\_SIEMDPTRC\_MPF  
 1: Recording to mass storage /user/sinumerik/data/temp/siemdptrc.trc  
 2: Recording to the part program memory with runtime measurement  
 3: Recording of cyclic PN-NCULINK communication

13112	PROFIBUS_TRACE_FILE_SIZE		EXP	-		
-	Maximum trace file size in kbytes		DWORD	NEW CONF		
-						
-	-	40	-	-	2/2	M

**Description:** For PROFIBUS/PROFINET only:  
 0: Trace without file size limitation  
 >0: Trace with file size limitation

13113	PROFIBUS_TRACE_START		EXP	-		
-	Activation of PROFIBUS/PROFINET trace		DWORD	Immediately		
-						
-	-	0	0	1	2/2	M

**Description:** For PROFIBUS/PROFINET only:  
 0: Trace off  
 1: Trace on  
 MD13112 \$MN\_PROFIBUS\_TRACE\_FILE\_SIZE > 0: Trace is automatically disabled when the file size is reached.

13114	PROFIBUS_TRACE_START_EVENT			EXP	-	
-	Trigger conditions for PROFIBUS/PROFINET trace			DWORD	NEW CONF	
-						
-	14	0, 0, 0, 0, 0, 0, 0, 0...	0x00000000	0x111ffff	2/2	M

**Description:** For PROFIBUS/PROFINET only:  
The trigger frequency is configured bit-by-bit  
Bits 0-15: 0x0001-0xffff: bit mask  
Bits 16-23: 0x01-0x14: process data number (a maximum of 20 words are permissible)  
Bits 24-27:0x01: status change 0->1  
                  0x00: status change 1->0  
Bits 28-31:0x10: send slot  
                  0x00: receive slot  
When MD13113=1 and MD13114=0x0 Recording starts immediately  
When MD13113=1 and MD13114=0x1 Recording starts on control power on  
When MD13113=1 and MD13114=0x2 Recording starts on loss of the sign of life

13120	CONTROL_UNIT_LOGIC_ADDRESS			N04, N10	-	
-	Logical address of SINAMICS CU			DWORD	PowerOn	
-						
840dsl-71	9	6500, 0, 0, 0, 0, 0, 0, 0, 0...	0	16383	7/2	M
840dsl-72	13	6500, 0, 0, 0, 0, 0, 0, 0, 0...	0	16383	7/2	M
840dsl-73	15	6500, 0, 0, 0, 0, 0, 0, 0, 0...	0	16383	7/2	M

**Description:** For PROFIBUS/PROFINET, SINAMICS:  
Logical I/O address of a SINAMICS-CU (Control Unit) on the PROFIBUS/PROFINET.  
The cyclic DP communication with SINAMICS-CU is activated by taking over the associated slot address from the STEP7 project. The onboard I/Os cannot be accessed until after configuration.

13140	PROFIBUS_ALARM_ACCESS			N04, N10	-	
-	Alarm response of PROFIBUS/PROFINET drives on power up			DWORD	Immediately	
-						
-	-	1	0	2	2/7	M

**Description:** For PROFIBUS/PROFINET only:  
Specifies the time of activation for evaluation/transmission of PROFIBUS/PROFINET node alarms or warnings (fine diagnostics messages) on the NCK.  
Affects drive alarms or warnings 380500, 380501 (or alarms 200000ff etc. created from these in the HMI) as well as drive safety alarms 27900.  
Meaning of the MD values:  
0 = alarms/warnings are evaluated immediately  
1 = alarms/warnings are not evaluated  
2 = alarms are evaluated only after power up, i.e. as soon as HMI has set value 2 active again (NCK automatically resets the MD value to 1 at every power up; HMI must

explicitely articulate its readiness for message processing  
by setting value 2)

Note: the MD restricts the range or effectiveness  
of MD13150 \$MN\_SINAMICS\_ALARM\_MASK

Default: the display default behavior of the mentioned drive  
alarms changes with the introduction of this MD.  
Now the alarms are not transported and displayed  
by default.

The previous default behavior can be restored  
with MD13140 \$MN\_PROFIBUS\_ALARM\_ACCESS=0.

13150	SINAMICS_ALARM_MASK	N04, N05	-
-	Activate fault and warning buffer output for Sinamics	DWORD	Immediately
-			
-	-	0x0909	-
-			7/2 M

**Description:**

For PROFIBUS/PROFINET only, especially SINAMICS:

Relevant to SINAMICS diagnostics:

Note: the effect of this MD may be hidden independently of  
the value of \$MN\_PROFIBUS\_ALARM\_ACCESS.

Mask for displaying the SINAMICS DOS fault and warning buffers

Bit set: Alarms in this DO group are output

Bit not set: Alarms in this DO group are not output

Bit Hex. Meaning

value

=====  
=====

0: 0x1 Output faults of the Control Units  
1: 0x2 Reserved  
2: 0x4 Output faults of the Drive Controls  
3: 0x8 Output faults of the Line Modules  
4: 0x10 Output faults of the Terminal Boards  
5: 0x20 Output faults of the Terminal Modules  
8: 0x100 Output warnings of the Control Units  
9: 0x200 Output warnings of the Communication Objects  
10: 0x400 Output warnings of the Drive Controls  
11: 0x800 Output warnings of the Line Modules  
12: 0x1000 Output warnings of the Terminal Boards  
13: 0x2000 Output warnings of the Terminal Modules

13200	MEAS_PROBE_LOW_ACTIVE	N10, N09	M5
-	Polarity reversal of sensor	BOOLEAN	PowerOn
-			
-	2	FALSE, FALSE	-
-			7/2 M

**Description:**

This MD defines the electrical polarity of each connected sensor.

Value 0:

(Default setting)

Non-deflected state 0 V

Deflected state 24 V

Value 1:

Non-deflected state            24 V

Deflected state                0 V

The programmed edges of the sensor are independent of the electrical polarity, and are to be regarded as purely mechanical. The programming of a positive edge always means the transition from the non-deflected into the deflected state. The programming of a negative edge always means the transition from the deflected into the non-deflected state.

13210	MEAS_TYPE	N10, N09			M5	
-	Meas. type with decentralized drives	BYTE			PowerOn	
-						
-	-	0	0	1	7/2	M

**Description:**

For PROFIdrive only:

This MD sets the measuring function of decentralized drives.

The MD currently only functions for PROFIdrive drives.

MEAS\_TYPE = 0 defines:

A probe is used that is connected centrally to the NC.

However, as the encoders only provide actual position values in cycles, the actual measuring position is found by interpolation.

MEAS\_TYPE = 1 defines:

The probe must be wired decentralized to ALL drives.

The measuring functionality of the drive is then used, saving the actual encoder values in the hardware at the time of the measuring edge.

This method is more accurate than that with MEAS\_TYPE = 0, but it requires a more complex wiring and drives that support this measuring functionality (e.g. 611U).

13211	MEAS_CENTRAL_SOURCE	N10, N09			-	
-	Data source central measurement with PROFIBUS/PROFINET drives	BYTE			PowerOn	
-						
-	-	3	1	3	7/2	M

**Description:**

For PROFIBUS/PROFINET only:

This MD is used to set the method used to obtain the time stamps for central measurement with PROFIdrive drives.

The following applies if MEAS\_CENTRAL\_SOURCE = 1:

NRK accesses are used to access the onboard measuring registers.

For this purpose, the appropriate hardware which allows this must be available, e.g. 840Di with MCI extension board.

The following applies if MEAS\_CENTRAL\_SOURCE = 2:

The SINAMICS DO1 telegram is used (telegram type 391), variant "Cyclic measurement" without handshake.

For this purpose, an integrated SINAMICS must be available, e.g. NCU 710. (Not available until supported by SINAMICS).

The following applies if MEAS\_CENTRAL\_SOURCE = 3:

The SINAMICS DO1 telegram is used (telegram type 391), in the variant with handshake. This procedure is

fault-tolerant, however, allows a measuring edge only every 4 PROFIBUS/PROFINET

cycles, i.e. it is considerably slower.

For this purpose, an integrated SINAMICS must be available, e.g. NCU 710.

This MD is only relevant, if MD13210 \$MN\_MEAS\_TYPE == 0.

13220	MEAS_PROBE_DELAY_TIME			N10, N09	FBA/IAD	
s	Delay time between probe deflection and recognition			DOUBLE	PowerOn	
-						
-	2	0.0, 0.0	0	0.1	7/2	M

**Description:** For probes with e.g. radio transmission, the probe deflection can be detected in the NC only with delay.

With this MD, the transmission link delay between the probe deflection and its detection is set in the control.

The measured value is corrected internally by the control by the distance that corresponds to the traversing motion during this time before measuring (modeling). It is practicable to set values only up to a maximum of 15 position controller cycles.

Anyhow, the modeling could not work with the expected accuracy with values greater than that. In this case, the input value is therefore limited internally by the software to 15 position controller cycles (without any further feedback).

13230	MEAS_PROBE_SOURCE			N10, N09	-	
-	Probe simulation			BYTE	PowerOn	
-						
-	-	0	0	9	7/2	M

**Description:** Simulation of the probe only works when all axes are simulated.  
 Value = 0: the probe is triggered on the programmed end position.  
 Value = 1-8: the probe is triggered via digital output with the number=value.  
 Value = 9: reserved

13231	MEAS_PROBE_OFFSET			N10, N09	-	
mm/inch, degrees	Probe offset			DOUBLE	Immediately	
-						
-	-	0.1	-	-	7/7	M

**Description:** The switching position of the probe is offset by the value.  
 The offset is only active with the simulated probes and MD 13230=0.

13300	PROFISAFE_IN_FILTER			N01, N10, -	-	
-	Useful F data filter IN			DWORD	PowerOn	
-						
840dsl-71	16	0xFFFFFFFF, 0xFFFFFFFF, 0xFFFFFFFF...	-	-	7/2	M
840dsl-72	48	0xFFFFFFFF, 0xFFFFFFFF, 0xFFFFFFFF...	-	-	7/2	M
840dsl-73	48	0xFFFFFFFF, 0xFFFFFFFF, 0xFFFFFFFF...	-	-	7/2	M

**Description:** Filter between F user data and \$INSE variables

Machine data \$MN\_PROFISAFE\_IN\_FILTER defines which F user data bits of the PROFIsafe module are accepted from the F user data interface of the PROFIsafe module into the NCK for further processing.

The filtered F user data bits are compressed internally in the NCK to form a contiguous bit field.

Machine data \$MN\_PROFISAFE\_IN\_ASSIGN then also defines the \$INSE variables to which the filtered F user data bits are transferred.

Example:

Note:

Only 16 bits are shown for the sake of simplicity.

Parameterization:

```
$MN_PROFISAFE_IN_FILTER = 1010100101000100
$MN_PROFISAFE_IN_ASSIGN = 011006
n = 16      11      6      1
|x|x|x|x|x|1|1|1|0|0|1|x|x|x|x|x|
$INSE[n], x = irrelevant
|0|0|0|0|0|0|0|0|0|0|0|1|1|1|0|0|1|
NCK-internal image of F user data
|1|0|1|0|1|0|0|1|0|1|0|0|0|1|0|0|
$MN_PROFISAFE_IN_FILTER
|1|0|1|0|1|0|0|0|0|0|0|0|0|1|0|0|
Exemplary value present at F user data interface of the PROFIsafe module
```

13301	PROFISAFE_OUT_FILTER	N01, N10, -	-		
-	Useful F data filter OUT	DWORD	PowerOn		
-					
840dsl-71	16	0xFFFFFFFF, 0xFFFFFFFF, 0xFFFFFFFF...	-	-	7/2 M
840dsl-72	48	0xFFFFFFFF, 0xFFFFFFFF, 0xFFFFFFFF...	-	-	7/2 M
840dsl-73	48	0xFFFFFFFF, 0xFFFFFFFF, 0xFFFFFFFF...	-	-	7/2 M

**Description:** Filter between \$OUTSE variables and F user data

Machine data \$MN\_PROFISAFE\_OUT\_ASSIGN defines which \$OUTSE[n] variables are transferred to the F user data bits of the PROFIsafe module.

Machine data \$MN\_PROFISAFE\_OUT\_FILTER defines the F user data bit to which the relevant \$OUTSE[n] variable is transferred.

Example: Note: Only 16 bits are shown for the sake of simplicity.

Parameterization:

```
$MN_PROFISAFE_OUT_FILTER = 1010100101000100
$MN_PROFISAFE_OUT_ASSIGN = 011006
n = 16      11      6      1
|x|x|x|x|x|1|1|1|1|1|1|x|x|x|x|x|
Exemplary value present in the $OUTSE variables, x = irrelevant
|0|0|0|0|0|0|0|0|0|0|0|1|1|1|1|1|1|
NCK-internal image of F user data
|1|0|1|0|1|0|0|1|0|1|0|0|0|1|0|0|
```

```

$MN_PROFISAFE_OUT_FILTER
|1|0|1|0|1|0|0|1|0|1|0|0|0|1|0|0|
F user data of the PROFIsafe module

```

13302	PROFISAFE_IN_ENABLE_MASK			N01, N10, -	-	
-	Enable mask for connections to PROFIsafe input modules.			DWORD	PowerOn	
-						
840dsl-71	1	0x0	0x0, 0x0	0x0000FFFF	7/2	M
840dsl-72	2	0x0, 0x0	0x0, 0x0	0xFFFFFFFF, 0x0000FFFF	7/2	M
840dsl-73	2	0x0, 0x0	0x0, 0x0	0xFFFFFFFF, 0x0000FFFF	7/2	M

**Description:** The enable mask is used to enable the machine data blocks for the connections to PROFIsafe input modules.

A machine data block comprises the following data:

- \$MN\_PROFISAFE\_IN\_ADDRESS[n]
- \$MN\_PROFISAFE\_IN\_ASSIGN[n]
- \$MN\_PROFISAFE\_IN\_FILTER[n]
- \$MN\_PROFISAFE\_IN\_SUBS[n]

Bit n = 0

The machine data block [n] is checked for consistency but not activated.

The PROFIsafe connection [n] or the slot [n] is not active.

Bit n = 1

The machine data block [n] is active.

The PROFIsafe connection [n] or the slot [n] is active.

13303	PROFISAFE_OUT_ENABLE_MASK			N01, N10, -	-	
-	Enable mask for connections to PROFIsafe output modules.			DWORD	PowerOn	
-						
840dsl-71	1	0x0	0x0, 0x0	0x0000FFFF	7/2	M
840dsl-72	2	0x0, 0x0	0x0, 0x0	0xFFFFFFFF, 0x0000FFFF	7/2	M
840dsl-73	2	0x0, 0x0	0x0, 0x0	0xFFFFFFFF, 0x0000FFFF	7/2	M

**Description:** The enable mask is used to enable the machine data blocks for the connections to PROFIsafe output modules.

A machine data blocks comprises the following data:

- \$MN\_PROFISAFE\_OUT\_ADDRESS[n]
- \$MN\_PROFISAFE\_OUT\_ASSIGN[n]
- \$MN\_PROFISAFE\_OUT\_FILTER[n]

Bit n = 0

The machine data block [n] is checked for consistency but not activated.

The PROFIsafe connection [n] or the slot [n] is not active.

Bit n = 1

The machine data block [n] is active.

The PROFIsafe connection [n] or the slot [n] is active.

13304	PROFISAFE_IN_SUBS_ENAB_MASK			N01, N10, -	-	
-	Activation of substitute value output for PROFIsafe input modules			DWORD	PowerOn	
-						
840dsl-71	1	0x0	0x0, 0x0	0x0000FFFF	7/2	M
840dsl-72	2	0x0, 0x0	0x0, 0x0	0xFFFFFFFF, 0x0000FFFF	7/2	M
840dsl-73	2	0x0, 0x0	0x0, 0x0	0xFFFFFFFF, 0x0000FFFF	7/2	M

**Description:** The enable mask is used to enable substitute value output for connections to PROFIsafe input modules.

Bit n = 0

The PROFIsafe input module's process data is transferred to the SPL input data for the connection parameterized in machine data block [n].

The PROFIsafe connection [n] or the slot [n] is active.

Bit n = 1

The substitute values from \$MN\_PROFISAFE\_IN\_SUBS are transferred to the SPL input data for the connection parameterized in machine data block [n].

The PROFIsafe connection [n] or the slot [n] is passive.

13305	PROFISAFE_IN_SUBS			N01, N10, -	-	
-	Substitute values for passive connections to PROFIsafe input modules			DWORD	PowerOn	
-						
840dsl-71	16	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	-	-	7/2	M
840dsl-72	48	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	-	-	7/2	M
840dsl-73	48	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	-	-	7/2	M

**Description:** For passive connections to PROFIsafe input modules, the substitute values parameterized in the machine data are transferred to the SPL inputs (\$A\_INSE) parameterized via \$MN\_PROFISAFE\_IN\_ASSIGN[n].

If the SPL inputs parameterized with \$MN\_PROFISAFE\_IN\_ASSIGN[n] overlap the SPL inputs of an active slot, the control will modify the passive slot's substitute values in order to prevent duplicate assignment of the SPL inputs.

Here, the states of the signals from the active slots have priority.

13308	PROFISAFE_IN_NAME			N01, N10, -	-	
-	Name of the PROFIsafe IN connection			STRING	PowerOn	
-						
840dsl-71	16	...	-	-	7/2	M
840dsl-72	48	...	-	-	7/2	M
840dsl-73	48	...	-	-	7/2	M

**Description:** A name can be assigned to each PROFIsafe IN connection.

If a name has been assigned, this will be displayed in the alarm text instead of the PROFIsafe address.



13309	PROFISAFE_OUT_NAME		N01, N10, -	-		
-	Name of the PROFIsafe OUT connection		STRING	PowerOn		
-						
840dsl-71	16	...	-	-	7/2	M
840dsl-72	48	...	-	-	7/2	M
840dsl-73	48	...	-	-	7/2	M

**Description:** A name can be assigned to each PROFIsafe OUT connection.  
If a name has been assigned, this will be displayed in the alarm text instead of the PROFIsafe address.

13310	SAFE_SPL_START_TIMEOUT		N01, N06, -	FBSI		
s	Delay in display of alarm 27097		DOUBLE	PowerOn		
-						
-	-	20.	1.	60.	7/2	M

**Description:** After powerup of the control, alarm 27097 is displayed after the time if the SPL start is not carried out.

13312	SAFE_SPL_USER_DATA		N01, -	FBSI		
-	User data		DWORD	PowerOn		
SFCO						
-	4	0x0, 0x0, 0x0, 0x0	-	-	7/2	M

**Description:** User data for storing user-specific information. These data are monitored for changes by the data cross-check between NCK and PLC. Changes to these data are detected when included in the checksums, and reported by alarm 27071. The data must agree with the corresponding PLC data (DB18 DBD256,260,264,268). Deviations between NCK and PLC trigger the programmed stop (Stop D or Stop E) and are displayed via alarm 27090.

13316	SAFE_GLOB_CFG_CHANGE_DATE		N01, N05, -	FBSI		
-	Date/time of last change of SI-NCK MD		STRING	PowerOn		
-						
-	7		-	-	ReadOnly	M

**Description:** Display data for safety functions:  
Date and time of the last configuration change to safety-related NCK machine data.  
Changes to the machine data included in the calculation of the checksums SAFE\_GLOB\_ACT\_CHECKSUM are recorded.

13317	SAFE_GLOB_PREV_CONFIG		EXP, N01, N05, -	FBSI		
-	Data of previous safety configuration		DWORD	PowerOn		
-						
-	11	0, 0, 0, 0, 0, 0, 0, 0...	-	-	ReadOnly	M

**Description:** Intermediate buffer for storing previous safety configuration data  
Index 0: Status flag for change history  
Index 1: Previous value of option data  
Index 2: Previous value of set checksum SAFE\_GLOB\_DES\_CHECKSUM[0]  
Index 3: Last value of option data before standard data were loaded  
Index 4: Last value of set checksum SAFE\_GLOB\_DES\_CHECKSUM[0] before standard data were loaded.

Index 5: Previous value of set checksum SAFE\_GLOB\_DES\_CHECKSUM[1]  
 Index 6: Last value of set checksum SAFE\_GLOB\_DES\_CHECKSUM[1] before standard data were loaded  
 Index 7: Previous value of set checksum SAFE\_GLOB\_DES\_CHECKSUM[2]  
 Index 8: Last value of set checksum SAFE\_GLOB\_DES\_CHECKSUM[2] before standard data were loaded  
 Index 9: Previous value of set checksum SAFE\_GLOB\_DES\_CHECKSUM[3]  
 Index 10: Last value of set checksum SAFE\_GLOB\_DES\_CHECKSUM[3] before standard data were loaded

13318	SAFE_GLOB_ACT_CHECKSUM	N01, N05, -	FBSI
-	Actual checksum NCK	DWORD	PowerOn
-			
-	4	0, 0, 0, 0	-
			ReadOnly M

**Description:** In this data, the actual checksum calculated after POWER ON or on RESET overwrites the current values of the safety-relevant machine data.

Assignment of the field indices:

Index 0: General safety parameterization, parameterization of the SPL-I/O link

Index 1: SPL user data

Index 2: Enable for I/O link (PROFIsafe and F\_SEND/F\_RECV)

Index 3: PROFIsafe parameter from the S7 configuration

13319	SAFE_GLOB_DES_CHECKSUM	N01, N05, -	FBSI
-	Desired (expected) checksum	DWORD	PowerOn
-			
-	4	0, 0, 0, 0	-
			7/1 M

**Description:** In this data, the set checksum stored at the time of the last machine acceptance overwrites the current values of the safety relevant machine data.

Assignment of the field indices:

Index 0: General safety parameterization, parameterization of the SPL-I/O link

Index 1: SPL user data

Index 2: Enable for I/O link (PROFIsafe and F\_SEND/F\_RECV)

Index 3: PROFIsafe parameter from the S7 configuration

13320	SAFE_SRDP_IPO_TIME_RATIO	N01, N10, -	FBSI
-	Factor F_DP communication cycle	DWORD	PowerOn
SFCO			
-	-	10	1
		65535	7/2 M

**Description:** Ratio between interpolator cycle and F\_DP cycle, in which the F\_DP communication is performed. In the resulting time interval the NCK triggers OB40 on the PLC in order to perform the F\_DP communication.

The value for the communication cycle resulting from this MD and the set IPO cycle must not exceed 250ms.

13322	INFO_SAFE_SRDP_CYCLE_TIME		N01, N10, N05,	FBSI		
s	Maximum F_DP communication cycle		DOUBLE	PowerOn		
-						
-	-	0.0	-	-	ReadOnly	M

**Description:** Displays the maximum time grid, in which the OB40 for F\_DP communication is initiated.

The value is obtained from the interpolation cycle and MD \$MN\_SAFE\_SRDP\_IPO\_TIME\_RATIO.

If the set communication cycle in cyclic operation is exceeded, then this is also displayed here.

In the case of a parameterization error (communication cycle exceeds the maximum value of 250.0 ms), then the maximum value that can be set is displayed. This is only a display data. The value cannot be changed.

13330	SAFE_SDP_ENABLE_MASK		N01, N10, -	FBSI		
-	Enable screen F_SENDDP communication relationships		DWORD	PowerOn		
-						
-	-	0x0	0x0	0xFFFF	7/2	M

**Description:** Enable screen for the individual F\_SENDDP communication relationships

13331	SAFE_SDP_ID		N01, N10, -	FBSI		
-	ID for F_SENDDP communication relationship		DWORD	PowerOn		
-						
-	12	0, 0, 0, 0, 0, 0, 0, 0, 0...	-32768	32767	7/2	M

**Description:** Any network unique value as ID for F\_SENDDP communication relationship.  
SIMATIC module parameter: DP\_DP\_ID

13332	SAFE_SDP_NAME		N01, N10, -	FBSI		
-	Name of SPL connection		STRING	PowerOn		
-						
-	12	...	-	-	7/2	M

**Description:** A name can be assigned to each SPL connection.

If a name was assigned, this name will be displayed in the alarm text instead of DP\_DP\_ID.

13333	SAFE_SDP_CONNECTION_NR		N01, N10, -	FBSI		
-	Number of SPL connection		BYTE	PowerOn		
-						
-	12	0, 0, 0, 0, 0, 0, 0, 0, 0...	0	3	7/2	M

**Description:** This machine data is used to set the number of the SPL connection that is parameterized with this data record.

The number of the SPL connection is at the same time also the index for access to the system variables of the user interface of this SPL connection.

This applies to the following system variables:

- \$A\_FSDP\_ERR\_REAC
- \$A\_FSDP\_ERROR
- \$A\_FSDP\_SUBS\_ON
- \$A\_FSDP\_DIAG

Example: \$MN\_SAFE\_SDP\_CONNECTION\_NR[2] = 3 means that the control and status information of the SPL connection that is parameterized via data record 2 can be found in the system variables with field index 3.

13334	SAFE_SDP_LADDR			N01, N10, -	FBSI	
-	Basic address of the input/output data range F_SENDDP			DWORD	PowerOn	
-						
-	12	288, 288, 288, 288, 288, 288, 288, 288...	288	32767	7/2	M

**Description:** The start address of the input and output data range - parameterized in SIMATIC STEP 7 - through which F\_SENDDP of this communication relationship communicates.

SIMATIC module parameter: LADDR

13335	SAFE_SDP_TIMEOUT			N01, N10, -	FBSI	
s	Monitoring time F_SENDDP			DOUBLE	PowerOn	
-						
-	12	0.5, 0.5, 0.5, 0.5, 0.5, 0.5, 0.5, 0.5...	0.0	60.0	7/2	M

**Description:** The monitoring time is the time in which F\_SENDDP must have sent a new F telegram to F\_RECVDP or in which F\_RECVDP must have acknowledged a new F telegram. When the monitoring time is exceeded, F\_RECVDP outputs replacement values to the SPL.

SIMATIC module parameter: TIMEOUT

13336	SAFE_SDP_ASSIGN			N01, N10, -	FBSI	
-	Output assignment.\$A_OUTSE to F_SENDDP user data			DWORD	PowerOn	
-						
840dsl-71	12	0, 0, 0, 0, 0, 0, 0, 0...	0	64064	7/2	M
840dsl-72	12	0, 0, 0, 0, 0, 0, 0, 0...	0	192192	7/2	M
840dsl-73	12	0, 0, 0, 0, 0, 0, 0, 0...	0	192192	7/2	M

**Description:** The SPL signals \$A\_OUTSE to be transmitted can only be selected area by area.

Format: 00 aaa bbb (decimal) with

aaa = area limit 1, SPL signal \$A\_OUTSE[aaa]

bbb = area limit 2, SPL signal \$A\_OUTSE[bbb]

Example: \$MN\_SAFE\_SDP\_ASSIGN[0] = 001 004 or alternatively 004 001

The SPL signals \$A\_OUTSE[1] to \$A\_OUTSE[4] are transmitted to the F\_SENDDP user data selected via MD SAFE\_SDP\_FILTER[0].

13337	SAFE_SDP_FILTER			N01, N10, -	FBSI	
-	F user data filter between \$A_OUTSE and F_SENDDP			DWORD	PowerOn	
-						
-	12	0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF...	0x0	0xFFFF	7/2	M

**Description:** The SPL signals selected via MD \$MN\_SAFE\_SDP\_ASSIGN are transmitted to the F\_SENDDP user data signals in the order of the FILTER bits set to 1. The lowest-value SPL signal to the bit position of the F\_SENDDP user data of the lowest-value filter bit set to 1, etc. for all SPL signals selected.

Bit x = 1: an SPL signal is transmitted to bit position x of the F\_SENDDP user data.

Bit x = 0: no SPL signal is transmitted to bit position x of the F\_SENDDP user data.

13338	SAFE_SDP_ERR_REAC	N01, N10, -		FBSI		
-	Fault reaction	DWORD		PowerOn		
-						
-	12	0, 0, 0, 0, 0, 0, 0, 0...	0	3	7/2	M

**Description:** In the case of a communication error the fault reaction defined here is triggered. This value is valid as long as no other value is specified from the SPL via system variable \$A\_FSDP\_ERR\_REAC.

Meaning of the values:

- 0 = alarm 27350 + stop D/E
- 1 = alarm 27350
- 2 = alarm 27351 (displayed only; self-extinguishing)
- 3 = no system reaction

13340	SAFE_RDP_ENABLE_MASK	N01, N10, -		FBSI		
-	Enable screen F_RECVDP communication relationships	DWORD		PowerOn		
-						
-	-	0x0	0x0	0xFFF	7/2	M

**Description:** Enable screen for the individual F\_RECVDP communication relationships

13341	SAFE_RDP_ID	N01, N10, -		FBSI		
-	ID for F_RECVDP communication relationships	DWORD		PowerOn		
-						
-	12	0, 0, 0, 0, 0, 0, 0, 0...	-32768	32767	7/2	M

**Description:** Any network unique value as ID for F\_RECVDP communication relationships. SIMATIC module parameter: DP\_DP\_ID

13342	SAFE_RDP_NAME	N01, N10, -		FBSI		
-	Name of SPL connection	STRING		PowerOn		
-						
-	12	...	-	-	7/2	M

**Description:** A name can be assigned to each SPL connection.  
If a name was assigned, this name will be displayed in the alarm text instead of DP\_DP\_ID.

13343	SAFE_RDP_CONNECTION_NR	N01, N10, -		FBSI		
-	Assignment SPL connection to system variables	BYTE		PowerOn		
-						
-	12	0, 0, 0, 0, 0, 0, 0, 0...	0	3	7/2	M

**Description:** This machine data is used to set the number of the SPL connection that is parameterized with this data record.

The number of the SPL connection is at the same time also the index for access to the system variables of the user interface of this SPL connection.

This applies to the following system variables:

- \$A\_FRDP\_SUBS
- \$A\_FRDP\_ERR\_REAC
- \$A\_FRDP\_ERROR
- \$A\_FRDP\_SUBS\_ON
- \$A\_FRDP\_ACK\_REQ

- \$A\_FRDP\_DIAG
- \$A\_FRDP\_SENDDDP

Example: \$MN\_SAFE\_RDP\_CONNECTION\_NR[2] = 3 means that the control and status information of the SPL connection that is parameterized via data record 2 can be found in the system variables with field index 3.

13344	SAFE_RDP_LADDR			N01, N10, -	FBSI	
-	Basic address of the input/output data range F_RECVDP			DWORD	PowerOn	
-						
-	12	288, 288, 288, 288, 288, 288, 288, 288...	288	32767	7/2	M

**Description:** The start address of the input and output data range - parameterized in SIMATIC STEP 7 - through which F\_RECVDP of this communication relationship communicates.

SIMATIC module parameter: LADDR

13345	SAFE_RDP_TIMEOUT			N01, N10, -	FBSI	
s	Monitoring time F_RECVDP			DOUBLE	PowerOn	
-						
-	12	0.5, 0.5, 0.5, 0.5, 0.5, 0.5, 0.5, 0.5...	0.0	60.0	7/2	M

**Description:** The monitoring time is the time in which F\_SENDDDP must have sent a new F telegram to F\_RECVDP or in which F\_RECVDP must have acknowledged a new F telegram. When the monitoring time is exceeded, F\_RECVDP outputs replacement values to the SPL.

SIMATIC module parameter: TIMEOUT

13346	SAFE_RDP_ASSIGN			N01, N10, -	FBSI	
-	Input assignment. F_RECVDP user data to \$A_INSE			DWORD	PowerOn	
-						
840dsl-71	12	0, 0, 0, 0, 0, 0, 0, 0...	0	64064	7/2	M
840dsl-72	12	0, 0, 0, 0, 0, 0, 0, 0...	0	192192	7/2	M
840dsl-73	12	0, 0, 0, 0, 0, 0, 0, 0...	0	192192	7/2	M

**Description:** The SPL signals \$A\_INSE to be supplied can only be selected area by area. Format: 00 aaa bbb (decimal) with

aaa = area limit 1, SPL signal \$A\_INSE[aaa]

bbb = area limit 2, SPL signal \$A\_INSE[bbb]

Example: \$MN\_SAFE\_RDP\_ASSIGN[0] = 001 004 or alternatively 004 001

The SPL signals \$A\_INSE[1] to \$A\_INSE[4] are transmitted to the F\_RECVDP user data selected via MD SAFE\_RDP\_FILTER[0].

13347	SAFE_RDP_FILTER			N01, N10, -	FBSI	
-	F user data filter between F_RECVDP and \$A_INSE			DWORD	PowerOn	
-						
-	12	0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF...	0x0	0xFFFF	7/2	M

**Description:** The F\_RECVDP user data signals the filter bits of which are set to 1 are transmitted to the SPL signals via MD \$MN\_SAFE\_RDP\_ASSIGN. The lowest-value F\_RECVDP user data signal to the lowest-value selected SPL signal etc. for all F\_RECVDP user data selected.

Bit x = 1: the F\_RECVDP user data signal of bit position x is transmitted as SPL signal.

Bit x = 0: the F\_RECVDP user data signal of bit position x is not transmitted as SPL signal.

13348	SAFE_RDP_ERR_REAC			N01, N10, -	FBSI	
-	Fault reaction			DWORD	PowerOn	
-						
-	12	0, 0, 0, 0, 0, 0, 0, 0, 0...	0	3	7/2	M

**Description:** In the case of a communication error, the fault reaction defined here is triggered. This value is valid as long as no other value is specified from the SPL via system variable \$A\_FRDP\_ERR\_REAC.

Meaning of the values:

- 0 = alarm 27350 + stop D/E
- 1 = alarm 27350
- 2 = alarm 27351 (displayed only; self-clearing)
- 3 = no system reaction

13349	SAFE_RDP_SUBS			N01, N10, -	FBSI	
-	Replacement values in case of error			DWORD	PowerOn	
-						
-	12	0, 0, 0, 0, 0, 0, 0, 0, 0...	0	0xFFFF	7/2	M

**Description:** In the case of a communication error, the replacement values defined here are activated in the system variables \$A\_INSE assigned to this SPL connection. This value is valid as long as no other value is specified from the SPL via system variable \$A\_FRDP\_SUBS.

14504	MAXNUM_USER_DATA_INT			N03	P3	
-	Number of user data (INT)			DWORD	PowerOn	
-						
-	-	0	0	256	7/2	M

**Description:** Number of NC/PLC user data of type INT

14506	MAXNUM_USER_DATA_HEX			N03	P3	
-	Number of user data (HEX)			DWORD	PowerOn	
-						
-	-	0	0	256	7/2	M

**Description:** Number of NC/PLC user data (HEX)

14508	MAXNUM_USER_DATA_FLOAT			N03	P3	
-	Number of user data (FLOAT)			DWORD	PowerOn	
-						
-	-	0	0	32	7/2	M

**Description:** Number of NC/PLC user data of type FLOAT

14510	USER_DATA_INT			N03	P3	
-	User data (INT)			DWORD	PowerOn	
-						
-	256	0, 0, 0, 0, 0, 0, 0, 0, 0...	-32768	32767	7/2	M

**Description:** User data is stored in the NCK-PLC interface, and can be read by the PLC user from the DB20 during the runup.

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14512	USER_DATA_HEX			N03	P3	
-	User data (HEX)			DWORD	PowerOn	
-						
-	256	0, 0, 0, 0, 0, 0, 0, 0...	0	0x0FF	7/2	M

**Description:** User data is stored in the NCK-PLC interface and can be read by the PLC user from the DB20 during the PLC runup.

14514	USER_DATA_FLOAT			N03	P3	
-	User data (FLOAT)			DOUBLE	PowerOn	
-						
-	32	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-3.40e38	3.40e38	7/2	M

**Description:** User data is stored in the NCK-PLC interface, and can be read by the PLC user from the DB20 during the runup.

14516	USER_DATA_PLC_ALARM			N03	A2,P3	
-	User data (HEX)			BYTE	PowerOn	
-						
-	248	0, 0, 0, 0, 0, 0, 0, 0...	-	-	0/0	M

**Description:** User data is stored in the NCK-PLC interface and can be evaluated by the PLC basic system (currently for software PLC 2xx).

15700	LANG_SUB_NAME			N01	K1	
-	Name for substitution subroutine			STRING	PowerOn	
-						
-	-		-	-	7/2	M

**Description:** Name of the user program called on the basis of a substitution configured by MD30465 \$MA\_AXIS\_LANG\_SUB\_MASK.  
The user program is called with the path configured by MD15702 \$MN\_LANG\_SUB\_PATH.

15702	LANG_SUB_PATH			N01	K1	
-	Call path for substitution subroutine			BYTE	PowerOn	
-						
-	-	0	0	2	7/2	M

**Description:** Path with which the user program set by MD15700 \$MN\_LANG\_SUB\_NAME is called on the basis of a substitution configured by MD30465 \$MA\_AXIS\_LANG\_SUB\_MASK:

- 0: /\_N\_CMA\_DIR (default)
- 1: /\_N\_CUS\_DIR
- 2: /\_N\_CST\_DIR

15710	TCA_CYCLE_NAME			N09	K1,FBW	
-	Program name for replacement of the TCA command			STRING	PowerOn	
-						
-	-		-	-	7/2	M

**Description:** Program name for the replacement program when calling the TCA command.



If the TCA command is programmed in a part program block, then the subprogram defined in \$MN\_TCA\_CYCLE\_NAME is called at the end of the block. The programmed tool can be requested in the replacement program via the system variables \$C\_TS\_PROG / \$C\_TS, the Duplo number via \$C\_DUPLO\_PROG / \$C\_DUPLO and the toolholder/spindle number via \$C\_THNO\_PROG / \$C\_THNO. The system variable \$C\_TCA returns the value TRUE in the replacement program. Since the replacement takes place at the end of the block, the system variable \$P\_SUB\_STAT in the replacement program provides the value 2

If \$MN\_TCA\_CYCLE\_NAME contains an empty string, the replacement is deactivated (default).

16800	ROOT_KIN_ELEM_NAME		EXP, N01	K1	
-	Name of the root chain element		STRING	Reset	
-					
-	-	ROOT	-	-	7/2 M

**Description:** Specifies the name of the chain element, which, for a machine description using kinematic chains, is the only one that extends from the zero point of the global coordinate system (root chain element).

17200	GMMC_INFO_NO_UNIT		EXP	K1	
-	Global HMI information (without physical unit)		DOUBLE	PowerOn	
-					
-	16	3., 4., 3., 1., 0., 0., 0., 0...	-	-	0/7 M

**Description:** The HMI stores the global display machine data

- \$MM\_DISPLAY\_RESOLUTION
- \$MM\_DISPLAY\_RESOLUTION\_INCH
- \$MM\_SPIND\_DISPLAY\_RESOLUTION
- \$MM\_MA\_COORDINATE\_SYSTEM

in the NCK machine data from MD17200 \$MN\_GMMC\_INFO\_NO\_UNIT[0] to MD17200 \$MN\_GMMC\_INFO\_NO\_UNIT[3]. This enables these display machine data to be accessed from the NCK.

17201	GMMC_INFO_NO_UNIT_STATUS		EXP	K1	
-	Global HMI status info (without physical unit)		BYTE	PowerOn	
-					
-	16	1, 1, 1, 1, 0, 0, 0, 0...	-	-	0/7 M

**Description:** Value 0: input not assigned  
Value 1: input assigned

17400	OEM_GLOBAL_INFO		A01, A11	-	
-	OEM version information		STRING	PowerOn	
-					
-	5		-	-	7/2 M

**Description:** A version information freely available to the user (is indicated in the version screen)  
Note: MD17400 \$MN\_OEM\_GLOBAL\_INFO[0] is used with functions such as logbook, licensing, etc. to store the machine identity.

17500	MAXNUM_REPLACEMENT_TOOLS	N09	FBW
-	Maximal number of replacement tools.	DWORD	PowerOn
-			
-	-	0	0
-	-	32	7/2
-	-		M

**Description:** Only relevant if the tool management function is active.  
Only relevant if the tool management (TMMA) function or the tool monitoring function (TMMO) is active.  
0: The number of replacement tools is not monitored.  
1: Exactly one replacement tool may be assigned to an identifier.  
The data does not influence the memory requirement. It is solely for monitoring purposes.  
Related to:  
MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK,  
MD20310 \$MC\_TOOL\_MANAGEMENT\_MASK

17510	TOOL_UNLOAD_MASK	N09	FBW
-	Behavior of tool data when unloading	DWORD	PowerOn
-			
-	-	0	0
-	-	0xF	7/2
-	-		M

**Description:** When unloading a tool, certain tool data can be set to store fixed values.

Bit no.	Bit value	HEX	Meaning
0	0	0	Tool status 'active' remains unchanged.
1	0x1	1	Tool status 'active' is deleted (\$TC_TP8, Bit 0).
1	0	0	Tool status 'was in use' remains unchanged.
1	0x2	2	Tool status 'was in use' is deleted (\$TC_TP8, Bit 7).
2	0	0	Tool parameter \$TC_TP10 remains unchanged.
1	0x4	4	Tool parameter \$TC_TP10 is set to zero. That is, the tool replacement change strategy is reset.
3	0	0	Tool parameter \$TC_TP11 remains unchanged.
1	0x8	8	Tool parameter \$TC_TP11 is set to zero. That is, the assignment to the tool subgroup is resolved.

17515	TOOL_RESETMON_MASK	N09	-
-	Tool data behavior with RESETMON	DWORD	PowerOn
-			
-	-	0x14	0
-	-	0x49F	7/2
-	-		M

**Description:** The 5th parameter of the RESETMON command defines which tool status is to be reset. If the 5th parameter is omitted, it is replaced by the value in this MD. With the PI service "\_N\_TRESMON", work is always done with this value. In that case, the bits are always assigned as the bits in the tool status \$TC\_TP8[x].

Bit no.:	Bit value:	hex value:	Meaning:
0	0	0	Tool status "active" remains unchanged
0	1	'H1'	Tool status "active" is deleted
1	0	0	Tool status "released" remains unchanged
1	1	'H2'	Tool status "released" is set

Bit no.: 2 Bit value: 0 hex value: -  
 Meaning: Tool status "locked" remains unchanged  
 Bit no.: 2 Bit value: 1 hex value: 'H4'  
 Meaning: Tool status "locked" is deleted, if this is permitted by the monitoring data and the 4th parameter is set correspondingly.  
 Bit no.: 3 Bit value: 0 hex value: -  
 Meaning: Tool status "measure" remains unchanged  
 Bit no.: 3 Bit value: 1 hex value: 'H8'  
 Meaning: Tool status "measure" is set.  
 Bit no.: 4 Bit value: 0 hex value: -  
 Meaning: Tool status "prewarning limit" remains unchanged  
 Bit no.: 4 Bit value: 1 hex value: 'H10'  
 Meaning: Tool status "prewarning limit" is deleted, if this is permitted by the monitoring data and the 4th parameter is set.  
 Bit no.: 5 Not permitted (tool status "tool is being changed")  
 Bit no.: 6 Not permitted (tool status "tool is fixed-location-coded")  
 Bit no.: 7 Bit value: 0 hex value: -  
 Meaning: Tool status "was in use" remains unchanged  
 Bit no.: 7 Bit value: 1 hex value: 'H80'  
 Meaning: Tool status "was in use" is deleted  
 Bit no.: 8 Bit value: 0 Not permitted (tool status "is in retract")  
 Bit no.: 9 Bit value: 0 hex value: -  
 Meaning: Tool status "locked is ignored" remains unchanged  
 Bit no.: 9 Bit value: 1 hex value: 'H200'  
 Meaning: Tool status "locked is ignored" is deleted  
 Bit no.: 10 Bit value: 0 hex value: -  
 Meaning: Tool status "to unload" remains unchanged  
 Bit no.: 10 Bit value: 1 hex value: 'H400'  
 Meaning: Tool status "to unload" is deleted  
 Bit no.: 11 Not permitted (tool status "to load")  
 Bit no.: 12 Bit value: 0 Not permitted (tool status "master tool")  
 Bit no.: 13 Not permitted (reserved)  
 The default setting corresponds to the previous behavior.  
 Impermissible bits are filtered and not displayed in the limit mask.  
 Bits not defined here are ignored when writing the machine data.

17520	TOOL_DEFAULT_DATA_MASK			N09	FBW	
-	Create new tool: default settings			DWORD	PowerOn	
-						
-	-	0	0	0x1F	7/2	M

**Description:** When defining a tool for the first time (bits 0, 1, 2) or the magazine locations (bit 3) for the first time, certain data of the tool can be set to fixed default values. Bit 4 can couple the magazine location status 'Overlapping allowed' ('H2000') to the value of the magazine location status 'disabled' ('H1'). This can prevent simple applications from dealing with data which do not necessarily have to be assigned individual values.  
 Bit no.: 0 Bit value: 0 Hex value: -  
 Meaning: Default value of tool status (\$TC\_TP8), bit1=0 ='not released'  
 Bit no.: 0 Bit value: 1 Hex value: 'H1'  
 Meaning: Default value of tool status (\$TC\_TP8), bit1=1 ='released'

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Bit no.: 1 Bit value: 0 Hex value: -  
 Meaning: Default value of tool status (\$TC\_TP8), bit6=0 ='not fixed-location-coded'

Bit no.: 1 Bit value: 1 Hex value: 'H2'  
 Meaning: Default value of tool status (\$TC\_TP8), bit6=1 ='fixed-location-coded'

Bit no.: 2 Bit value: 0 Hex value: -  
 Meaning: The tool is only accepted in the tool group when the explicit write command is used for the tool name. Only then can it be loaded via programming.

Bit no.: 2 Bit value: 1 Hex value: 'H4'  
 Meaning: The tool is automatically accepted in the tool group corresponding to the tool name when it is defined for the first time. The tool can then be changed using the default name ("t" = t-No.).

The term 'tool name' (\$TC\_TP2) can be hidden from the user. (This only makes sense if you do not use replacement tools or if the tool name is not written explicitly, as this may give rise to data consistency problems.)

Bit no.: 3 Bit value: 0 Only with TMMG: Default value of location type (\$TC\_TP7)=9999=not defined

Bit no.: 3 Bit value: 1 Hex value: 'H8'  
 Meaning: Only with TMMG: Default value of location type (\$TC\_TP7) = 1 and consequently the default value of magazine location type (\$TC\_MPP2)=1. This means that all magazine locations can accept all tools.

Bit no.: 4 Bit value: 0 Hex value: -  
 Meaning: Only with TMMG + active consider adjacent location: With SET/RESET of the magazine location status 'disabled', the magazine location status 'Overlapping allowed' remains unchanged.

Bit no.: 4 Bit value: 1 Hex value: 'H10'  
 Meaning: Only with TMMG + active consider adjacent location: With SET/RESET of the magazine location status 'disabled', the magazine location status 'Overlapping allowed' is automatically SET/RESET.

17530	TOOL_DATA_CHANGE_COUNTER		EXP, N01	FBW	
-	Mark tool data change for HMI		DWORD	PowerOn	
-					
-	-	0x1F	0	0x1F	7/2 M

**Description:** HMI display support. This data enables individual data to be explicitly taken into account or not taken into account in the OPI variables (block C/S) toolCounter, toolCounterC, toolCounterM.

Bit no.: 0 Bit value: 0 Hex value: -  
 Meaning: Changes to the values of the tool status (\$TC\_TP8) are not taken into account in toolCounterC

Bit no.: 0 Bit value: 1 Hex value: 'H1'  
 Meaning: Changes to the values of the tool status (\$TC\_TP8) are taken into account in toolCounterC

Bit no.: 1 Bit value: 0 Hex value: -  
 Meaning: Changes to the values of the remaining number of tools (\$TC\_MOP4) are not taken into account in toolCounterC

Bit no.: 1 Bit value: 1 Hex value: 'H2'  
 Meaning: Changes to the values of the remaining number of tools (\$TC\_MOP4) are taken into account in toolCounterC

Bit no.: 2 Bit value: 0 Hex value: -  
 Meaning: Changes to the values of the tool data are not taken into account in the tool data update service

Bit no.: 2 Bit value: 1 Hex value: 'H4'  
 Meaning: Changes to the values of the tool data are taken into account in the tool data update service

Bit no.: 3 Bit value: 0 Hex value: -  
 Meaning: Changes to the values of the magazine data are not taken into account in the tool data update service

Bit no.: 3 Bit value: 1 Hex value: 'H8'  
 Meaning: Changes to the values of the magazine data are taken into account in the tool data update service.

Bit no.: 4 Bit value: 0 Hex value: -  
 Meaning: Changes to the values of the ISO tool offset data are not taken into account in the tool data update service

Bit no.: 4 Bit value: 1 Hex value: 'H10' Meaning: Changes to the values of the ISO tool offset data are taken into account in the tool data update service

The statements "Changes to the values of the tool status" and "Changes to the values of the remaining number of tools" refer not only to value changes effected by internal processes in the NC but also to value changes produced by writing the corresponding system variables.

17540	TOOLTYPES_ALLOWED		N09	-		
-	Permitted tool types		DWORD	PowerOn		
-						
-	-	0x3FF	0	0x3FF	7/2	M

**Description:** Definition of the tool types permitted in NCK (see \$TC\_DP1) with the tool offset selection. That is, tools of any type may be loaded in the NCK; but only the tools types defined here may be defined in the offset defining tool. A bit value = 1 means that the named tool type range is permitted for the offset selection. A bit value = 0 means that the named tool type range is rejected with an offset-capable alarm in the case of an attempted offset selection of a cutting edge of this type. The special value = 0, 9999 for the tool type means "undefined". Tool offsets with this tool type value generally cannot be selected.

Bit no.: 0 value 0x1 means: Tool types 1 to 99 permitted

Bit no.: 1 value 0x2 means: Tool types 100 to 199 permitted (milling tools)

Bit no.: 2 value 0x4 means: Tool types 200 to 299 permitted (drilling tools)

Bit no.: 3 value 0x8 means: Tool types 300 to 399 permitted

Bit no.: 4 value 0x10 means: Tool types 400 to 499 permitted (grinding tools)

Bit no.: 5 value 0x20 means: Tool types 500 to 599 permitted (turning tools)

Bit no.: 6 value 0x40 means: Tool types 600 to 699 permitted

Bit no.: 7 value 0x80 means: Tool types 700 to 799 permitted

Bit no.: 8 value 0x100 means: Tool types 800 to 899 permitted

Bit no.: 9 value 0x200 means: Tool types 900 to 999 permitted

Related to:

MD18100 \$MN\_MM\_NUM\_CUTTING\_EDGES\_IN\_TOA

17600	DEPTH_OF_LOGFILE_OPT			EXP, N01	-	
-	Depth of log memory optimization in REORG			DWORD	Reset	
-						
-	-	5	0	300	3/3	M

**Description:**

The depth of memory optimization in the REORG log file

(=search depth to determine if a parameter to be written is already included in the REORG log file).

The value of the machine data can be increased if alarm 15110 occurs during program execution and if this alarm is to be avoided.

(Alternatively, the size of the REORG log file can be increased with MD28000 \$MC\_MM\_REORG\_LOG\_FILE\_MEM, provided that the operator has the access rights required. This procedure should generally be preferred.)

Value

0 = No optimization,

That is each write operation creates an input into the REORG log file. Writing a variable value is therefore very time-efficient, but requires more memory.

0 < n <= Maximum value

When a new variable value is written, the n previously entered write operations (but maximally up to the previous indicatable block) are checked to determine if the parameter now to be written has already been written in the past. If this is the case, a new entry is not made in the REORG log file.

If this is not the case, an entry is made. A variable value can therefore be written in a very memory-efficient way, but requires more time.

Example:

MD17600 \$MN\_DEPTH\_OF\_LOGFILE\_OPT is assumed to be 5 and the following would be a typical program sequence:

```
x10      ; Executable NC block
r1=1     ; The first write command since x10
          ; -> Save old value in log file. 1st entry
r2=1     ; Determine that r2 is not yet included
          ; -> Save old value in log file. 2nd entry
r3=1     ; Determine that r3 is not yet included
          ; -> Save old value in log file. 3rd entry
r4=1     ; Determine that r4 is not yet included
          ; -> Save old value in log file. 4th entry
r5=1     ; Determine that r5 is not yet included
          ; -> Save old value in log file. 5th entry
r6=1     ; Determine that r6 is not yet included
          ; -> Save old value in log file. 6th entry
r2=1     ; Determine that r2 is already included
          ; (5th oldest entry) -> no renewed saving
r3=1     ; Determine that r3 is already included
          ; (4th oldest entry) -> no renewed saving
r1=2     ; As MD17600 $MN_DEPTH_OF_LOGFILE_OPT = 5 it is not detected that
          ; r1 is already included
          ; (6th oldest entry) -> save old value in log file.
          ; 7th entry
x20      ; Executable NC block
```

```

r1=3    ; The first write command since x20
        ; -> Save old value in log file. 1st entry
r1=4    ; Determine that r1 is already included
        ; (Only one entry) -> no renewed saving

```

The setting of the MD is particularly useful if a small number of various parameters are written frequently (e.g. in a loop) and if alarm 15110 occurs for this reason.

17610	DEPTH_OF_LOGFILE_OPT_PF			EXP, N01	-	
-	Depth of the PowerFail log memory optimization			DWORD	Reset	
-						
-	3	10, 0, 0	0	300	1/1	M

**Description:** Depth of the memory optimization in the PowerFail log file (=search depth, to find out whether a parameter to be written is already included in the PowerFail log file).

It is possible to increase the value of the machine data if alarm 15120 occurs during program processing and if you wish to avoid it. (Alternatively, you can increase the size of the PowerFail log file itself by means of MD18232 \$MN\_MM\_ACTFILESYS\_LOG\_FILE\_MEM, if you have the necessary access right and if the required memory is available.

Value

0 = same effect as value 1.  
Writing of a variable value is therefore very time-efficient at the cost of the required memory.

0 < n <= Maximum value  
= Writing of a new variable value leads, prior to saving of the new variable value in the PowerFail log file, to the last n write operations which have been being checked to see whether the new parameter to be written has already been written once. If yes, the new value is not entered again in the PowerFail log file, but the old value is overwritten with the new one. If no, the new value is entered.  
At the cost of the required time, writing of a variable value can therefore be designed very memory-efficiently.

Changing of the data can shorten/increase the time requirement of the present application.  
Changing of the data can fill the available log buffers faster/more slowly.  
Frequent occurring of alarm 15120 -> Increase values for index=0,1,2.  
The value indicating the index to be changed can be deducted from the parameter of alarm 15120:  
if it is the value for MD18232 \$MN\_MM\_ACTFILESYS\_LOG\_FILE\_MEM[0], then increase the value for index 0;  
or increase MD18232 \$MN\_MM\_ACTFILESYS\_LOG\_FILE\_MEM[0] itself.

Index Meaning

0 Search depth in preprocessing buffer  
1 Search depth in buffer for data changes within the range of tool change

2 Search depth in buffer for data changes of main processing (especially synchronized actions)

17900	VDI_FUNCTION_MASK			EXP, N09	H1	
-	Setting to VDI signals			DWORD	PowerOn	
-						
-	-	0x0	0	0x1	7/2	M

**Description:** Settings for VDI signals:  
 Bit 0 == 0:  
 The VDI signals motion command + / motion command - are already issued if there is a travel request (default).  
 Bit 0 == 1:  
 The VDI signals motion command + / motion command - are issued only if the axis actually moves.

18000	VDI_UPDATE_IN_ONE_IPO_CYCLE			EXP, N01	P3	
-	PLC interface update			BOOLEAN	PowerOn	
-						
-	-	FALSE	-	-	0/0	M

**Description:** 1: Complete reading/writing of the VDI interface in one IPO cycle  
 0: Complete reading/writing of the VDI interface in two IPO cycles

18030	HW_SERIAL_NUMBER			N05	-	
-	Hardware series number			STRING	PowerOn	
-						
-	1		-	-	ReadOnly	M

**Description:** During power on of the control, a unique hardware serial number is stored in this MD:

- For Powerline series modules this is the serial number of the NCU module
- For Solutionline series modules this is the serial number of the CF card, or the unique number of the MCI module in the case of PC-based systems

This data cannot be written.

18040	VERSION_INFO			N05	IAD	
-	Version			STRING	PowerOn	
-						
840dsl-71	4	840DSL-71	-	-	ReadOnly	M
840dsl-72	4	840DSL-72	-	-	ReadOnly	M
840dsl-73	4	840DSL-73	-	-	ReadOnly	M

**Description:** Version identifiers of the system software

18042	CC_VERSION_INFO			N05	IAD	
-	Compile cycle version			STRING	PowerOn	
-						
-	10	...	-	-	7/2	M

**Description:** Version identifiers of the compile cycles



18050	INFO_FREE_MEM_DYNAMIC		N01, N02, N05	S7		
-	Display data of free dynamic memory		DWORD	PowerOn		
-						
-	-	1048576	-	-	ReadOnly	M

**Description:**

The data is used for

a) the manufacturer's presetting of the memory size [ bytes ] available to the user for each channel after cold restart.

b) Displaying the available dynamic memory [ bytes ]

The data cannot be written.

The contents of the data state how much unbuffered memory is available per channel for increasing the unbuffered user data storage area via MD.

One should check whether the available memory is sufficient before increasing, for example, the number of LUDs, number of functional parameters, or the size of the IPO buffer.

If necessary, proceed step by step:

- increase by 1, note (old) value
- NCK startup (= 'warm start' or NCK reset), read off new value
- memory requirement = new value - old value

On the first NCK startup or cold restart of the control (=deletion of user data), MD18210 \$MN\_MM\_USER\_MEM\_DYNAMIC is set by the NCK software so that at least the preset value results for MD18050 \$MN\_INFO\_FREE\_MEM\_DYNAMIC.

That is, the value is automatically increased if the initial value of MD18210 \$MN\_MM\_USER\_MEM\_DYNAMIC is too low.

The following also applies to multichannel systems:

- The preset value applies to each possible channel. That is, if there are ten possible channels, MD18210 \$MN\_MM\_USER\_MEM\_DYNAMIC is set by the NCK SW so that at least the 'preset value\* ten' results for MD18050 \$MN\_INFO\_FREE\_MEM\_DYNAMIC.
- On activation of a channel, MD18210 \$MN\_MM\_USER\_MEM\_DYNAMIC is increased if necessary so that the memory free at the time of activation continues to be free (provided that the memory structure permits this) after the channel has become active.
- The activation of the maximum possible number of axes is ensured by increasing the data MD18210 \$MN\_MM\_USER\_MEM\_DYNAMIC if necessary so that memory free at the time of activation continues to be free (provided that the memory structure permits this) after the axis has become active.

'If necessary' in the previous sentences means that the adjustment is automatic if the channel/axis could not be activated with the current values of MD18210 \$MN\_MM\_USER\_MEM\_DYNAMIC/\$MN\_INFO\_FREE\_MEM\_DYNAMIC.

18060	INFO_FREE_MEM_STATIC		N01, N02, N05	S7		
-	Display data of free static memory		DWORD	PowerOn		
-						
-	-	2097152	-	-	ReadOnly	M

**Description:**

The following applies to powerline control models:

Output of the buffered memory available in the passive file system [ bytes ].

The data cannot be written.

The preset value states the minimum number of bytes available to the user when the NCK starts up with a cold restart.

The contents of the data state how much battery-backed memory is available for the passive file system at the time of startup.

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After a non-buffered startup, the maximum memory available in the file system can be read.

If MDs that affect the requirement for buffered memory (e.g. MM\_NUM\_GUD\_VALUES\_MEM, MD38000 \$MA\_MM\_ENC\_COMP\_MAX\_POINTS ) are changed then this changes the amount of memory available for the passive file system, as the amount of memory allocated to the passive file system consists of MD18230 \$MN\_MM\_USER\_MEM\_BUFFERED minus all other buffered user data.

( See also the document on MD18350 \$MN\_MM\_USER\_FILE\_MEM\_MINIMUM )

At the first NCK startup or cold restart of the control (=deletion of user data) MD18230 \$MN\_MM\_USER\_MEM\_BUFFERED is set by the NCK software so that at least the default value results for MD18060 \$MN\_INFO\_FREE\_MEM\_STATIC.

That is MD18230 \$MN\_MM\_USER\_MEM\_BUFFERED is automatically increased if its initial value is too low.

The following applies to solution line control models:

The data reserves the available memory for the data that are not the passive file system.

(MD18350 \$MN\_MM\_USER\_FILE\_MEM\_MINIMUM[0] dimensions the passive file system.)

Machine data for setting the active file system (tools, GUDs, ...) can be increased until this memory has all been allocated.

18070	INFO_FREE_MEM_DPR	EXP, N01, N02, N05	S7
-	Display data of free memory in DUAL PORT RAM	DWORD	PowerOn
-			
-	-	0	ReadOnly M

**Description:** Output of the available memory in the Dual Port RAM (Bytes).  
The data cannot be written.

18072	INFO_FREE_MEM_CC_MD	EXP, N01, N05	-
-	Display of free memory in CC-MD memory	DWORD	PowerOn
-			
-	-	0	ReadOnly M

**Description:** Output of the available memory for compile cycle MDs (bytes).  
The data cannot be written.

18074	MM_TOOL_MANAGEMENT_TRACE_SZ	N02, N09	/FBW/, "Description of Functions, Tool Management"
-	Max. size of the tool management diagnostic ring buffers	DWORD	PowerOn
-			
-	2	25, 25	4 500 7/2 M

**Description:** The number of entries in the tool management diagnostic ring buffers.  
Index 0 = IPO trace buffer size.  
Index 1 = Prep trace buffer size.  
There are separate IPO trace buffers in each channel, and a Prep trace buffer in channel 1 only.  
The buffers are allocated only if bit 0 (0x0001) is ON at warm start, in both MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK and per-channel MD20310 \$MC\_TOOL\_MANAGEMENT\_MASK.  
Trace data is written to the buffers when bit 13 (0x2000) is ON in per-channel MD20310 \$MC\_TOOL\_MANAGEMENT\_MASK.

18075	MM_NUM_TOOLHOLDERS		N02, N09	/FBW/, "Description of Functions, Tool Management"		
-	Max. number of tool holders per TOA		DWORD	PowerOn		
-						
-	-	16	1	128	7/2	M

**Description:** Max. number of definable tool holders per TO range.  
The address extension e of commands Te=t, Me=6 (\*) is the number of the tool holder.  
t=T number/tool name - depending on the function activated in the NCK.  
(\*) if: MD22550 \$MC\_TOOL\_CHANGE\_MODE=1 and MD22560 \$MC\_TOOL\_CHANGE\_M\_CODE=6 applies  
Normally the tool holder of milling machines is a spindle.  
Also see MD20090 \$MC\_SPIND\_DEF\_MASTER\_SPIND.  
For turning machines the tool holder normally is not a spindle axis.  
Also see MD20124 \$MC\_TOOL\_MANAGEMENT\_TOOLHOLDER.  
In this case it should reasonably apply that MD18075 \$MN\_MM\_NUM\_TOOLHOLDERS is larger or equal to MD20090 \$MC\_SPIND\_DEF\_MASTER\_SPIND/MD20124 \$MC\_TOOL\_MANAGEMENT\_TOOLHOLDER.  
If bit 0 = 1 in MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK and MD20310 \$MC\_TOOL\_MANAGEMENT\_MASK is set (=magazine management (TOOLMAN)) it will apply for reasonable values that MD18075 \$MN\_MM\_NUM\_TOOLHOLDERS is smaller or equal to MD18076 \$MN\_MM\_NUM\_LOCS\_WITH\_DISTANCE.  
A maximum of MD18075 \$MN\_MM\_NUM\_TOOLHOLDERS intermediate memory locations of the type spindle (\$TC\_MPP1[9998,x]=2) can then be defined.  
Example: TOOLMAN inactive  
MD20090 \$MC\_SPIND\_DEF\_MASTER\_SPIND shall be =3, MD18075 \$MN\_MM\_NUM\_TOOLHOLDERS shall be =3.  
Then T1=t, T2=t, T3=t, T=t can be programmed.  
Example: TOOLMAN active, milling machine with Me=6 as tool change command  
MD18075 \$MN\_MM\_NUM\_TOOLHOLDERS shall be = 14, MD18076 \$MN\_MM\_NUM\_LOCS\_WITH\_DISTANCE=20,  
10 channels shall be active, all channels have TOOLMAN active and have the same tool and magazine data  
(=one TO range for all channels). MD20090 \$MC\_SPIND\_DEF\_MASTER\_SPIND=1,.....10 for the channels.  
Then up to 14 locations of the kind 'tool holder'/'spindle' can be defined in the intermediate magazine memory.  
Additional 6 grippers or others can be defined.  
These 20 locations max. can be linked to magazines.  
In the channels T1=t, .... T14=t and Tt, or M1=6,....M14=6 and M6 can be programmed.  
The PLC version used can limit the maximum number of tool holders.

18076	MM_NUM_LOCS_WITH_DISTANCE	N02, N09	/FBW/, "Description of Functions, Tool Management"			
-	Max. number of magazine locations per TOA with remote connection	DWORD	PowerOn			
-						
-	-	32	1	128	7/2	M

**Description:** This machine data is reasonable, if the magazine management function, TOOLMAN, is active

- See MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK, MD20310 \$MC\_TOOL\_MANAGEMENT\_MASK; for each bit 0 = 1.

Max. number of magazine locations (spindles, load locations,...) per TOA, that can have a remote connection to a magazine, defined by \$TC\_MDPx[n,m].

Example: TOOLMAN shall be active: MD18076 \$MN\_MM\_NUM\_LOCS\_WITH\_DISTANCE shall be = 5 and MD18077 \$MN\_MM\_NUM\_DIST\_REL\_PER\_MAGLOC = 2.

Two TO units shall be defined with three tool holders/spindles and two load locations each.

Furthermore, two grippers each shall be defined in each TO unit.

This means that a total of 14 locations shall be defined in the intermediate memory magazine/load magazine for the distances and assignments.

4 magazines shall be defined for TO unit 1, 6 magazines for TO unit 2.

With the value set to MD18076 \$MN\_MM\_NUM\_LOCS\_WITH\_DISTANCE = 5 each tool holder and each load location of the two TO units with up to two magazines (MD18077 \$MN\_MM\_NUM\_DIST\_REL\_PER\_MAGLOC = 2) per remote relationship can be connected; (see \$TC\_MDP1 and \$TC\_MDP2) and for each tool holder max. two more grippers (MD18077 \$MN\_MM\_NUM\_DIST\_REL\_PER\_MAGLOC = 2) can be assigned; (see \$TC\_MLSR).

One tool holder / one spindle location can subsequently have two tables - one distance table for magazines and one assignment table for grippers and similar locations.

18077	MM_NUM_DIST_REL_PER_MAGLOC	N02, N09	/FBW/, "Description of Functions, Tool Management"			
-	Max. no. of magazines in the distance table of a magazine loc.	DWORD	PowerOn			
-						
-	-	32	0	32	7/2	M

**Description:** This machine data will only be active, if the magazine management, TOOLMAN function is active.

- See MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK, MD20310 \$MC\_TOOL\_MANAGEMENT\_MASK.

Two sizes are defined with this magazine data:

- 1.) Max. number of magazines in the distance table of a magazine location (spindle, load location, ...)
- 2.) Max. number of locations (gripper, ...) in the connection table of a spindle/tool holder location.

Example: MD18077 \$MN\_MM\_NUM\_DIST\_REL\_PER\_MAGLOC shall be = 3.

Two TO units shall be defined with two tool holder/spindles each and one load location each.

Furthermore four grippers shall be defined in each TO unit.

4 magazines shall be defined for TO unit 1; 6 magazines shall be defined for TO unit 2.

Then, each tool holder can define max. three distances for the magazines (see \$TC\_MDP2)

and additionally a max. of three relationships to the grippers (\$TC\_MLSR).

18078	MM_MAX_NUM_OF_HIERARCHIES	N02, N09	/FBW/, "Description of Functions, Tool Management"			
-	The maximum number of hierarchies for magazine location types	DWORD	PowerOn			
-						
-	-	8	0	32	7/2	M

**Description:** The machine data only has effect if the function 'tool magazine management', TMMG, is activated - see MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK, MD20310 \$MC\_TOOL\_MANAGEMENT\_MASK.  
The maximum number of hierarchies for magazine location types.  
In variable \$TC\_MPTH[n,m], the allowed range of n is from 0 to (\$MN\_MM\_MAX\_NUM\_OF\_HIERARCHIES - 1).  
(The maximum of index m is given by MD18079 \$MN\_MM\_MAX\_HIERARCHY\_ENTRIES.)  
Value = 0 means that the function 'magazine location type hierchies' is not available.

18079	MM_MAX_HIERARCHY_ENTRIES	N02, N09	/FBW/, "Description of Functions, Tool Management"			
-	The max. number of entries in a mag. location type hierarchy.	DWORD	PowerOn			
-						
-	-	8	1	32	7/2	M

**Description:** The machine data is only effective if the function 'tool magazine management', TMMG, is activated - see MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK, MD20310 \$MC\_TOOL\_MANAGEMENT\_MASK - and if MD18078 \$MN\_MM\_MAX\_NUM\_OF\_HIERARCHIES is greater than zero.  
The maximum number of entries in a magazine location type hierarchy.  
The permissible range of the index m of system parameter \$TC\_MPTH[n,m] is from 0 to 'MD18079 \$MN\_MM\_MAX\_HIERARCHY\_ENTRIES - 1'.  
(The maximum of index n is given by MD18078 \$MN\_MM\_MAX\_NUM\_OF\_HIERARCHIES.)

18080	MM_TOOL_MANAGEMENT_MASK	N02, N09	K1,W1			
-	Step-by-step memory reservation for tool management (SRAM)	DWORD	PowerOn			
-						
-	-	0x0	0	0xFFFF	7/1	M

**Description:** Activating the TM memory with "0" means:  
The set TM data does not take up any memory space, TM is not available.  
Bit 0=1: Memory for TM-specific data is provided, the MDs which reserve memory space have to be set accordingly (MD18086 \$MN\_MM\_NUM\_MAGAZINE\_LOCATION, MD18084 \$MN\_MM\_NUM\_MAGAZINE)  
Bit 1=1: Memory for monitoring data (WZMO) is provided  
Bit 2=1: Memory for user data (CC data) is provided  
Bit 3=1: Memory to consider adjacent location is provided  
Bit 4=1: Memory and function enable for PI service \_N\_TSEARC = "Complex search for tools in magazines" is provided.  
Bit 5=1: Wear monitoring active

1.3 NC machine data

Bit 6=1: Wear grouping available  
 Bit 7=1: Reserve memory for adapters for magazine locations  
 Bit 8=1: Memory for application and/or setup offsets  
 Bit 9=1: Tools associated with a revolver no longer leave their revolver location on tool change (display).  
 Bit 10=1:The multitool function is available  
 (other MDs can be used to modify the configuration).  
 Bit 10=0:The multitool function is not available  
 (the functional scope configured with other MDs is ineffective).

This broken down approach to memory reservation means that memory usage can be optimized in line with the functions used.

Example:

Default memory reservation for TM:

MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK = 3 (bit 0 + 1=1) means that TM and tool monitoring data are provided

MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK = 1 means tool management without tool monitoring function data

18082	MM_NUM_TOOL			N02, N09	FBW,S7	
-	Number of tools the NCK can manage (SRAM)			DWORD	PowerOn	
-						
-	-	30	0	1500	7/2	M

**Description:** The NC cannot manage more tools than the number entered in the MD. A tool has at least one cutting edge.  
 Buffered user memory is used.  
 The maximum possible number of tools is equal to the number of cutting edges.  
 The MD must also be set when TOOLMAN is not used.  
 The buffered data are lost when the machine data is changed.  
 Related to:  
 MD18100 \$MN\_MM\_NUM\_CUTTING\_EDGES\_IN\_TOA

18084	MM_NUM_MAGAZINE			N02, N09	FBW	
-	Number of magazines the NCK can manage (SRAM)			DWORD	PowerOn	
-						
-	-	3	0	32	7/2	M

**Description:** Tool management (TOOLMAN and TMMG) - only when MD TOOLMAN and option TOOLMAN are set:  
 Number of magazines which the NCK can manage (active and background magazines).  
 This MD reserves the buffered memory for the magazines.  
 Important: One loading and one buffer magazine are set up in in the tool management for each TOA unit. These magazines have to be taken into account here.  
 Value = 0 -The tool management cannot be activated because no data can be created.  
 Related to:  
 MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK  
 MD20310 \$MC\_TOOL\_MANAGEMENT\_MASK

18086	MM_NUM_MAGAZINE_LOCATION		N02, N09	FBW		
-	Number of magazine locations the NCK can manage (SRAM)		DWORD	PowerOn		
-						
-	-	30	0	600	7/2	M

**Description:** TMMG - only when MD TOOLMAN and TOOLMAN option are set:  
Number of magazine locations which the NCK can manage.  
This machine data reserves the buffered memory for the magazine locations.  
Important: The number of all buffers and loading points also has to be included in the calculation here.  
Value = 0: Tool management cannot be activated because no data can be created.  
Related to:  
MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK  
MD20310 \$MC\_TOOL\_MANAGEMENT\_MASK

18088	MM_NUM_TOOL_CARRIER		N02, N09	W1		
-	Maximum number of definable tool holders		DWORD	PowerOn		
-						
-	-	0	0	600	7/2	M

**Description:** Maximum number of definable toolholders for orientable tools in the TO area.  
The value is divided by the number of active TO units. The integer result states how many toolholders can be defined for each TO unit. The data for defining a toolholder are set with the system variables \$TC\_CARR1, ... \$TC\_CARR14.  
The data are stored in battery-backed memory.  
Application example(s):  
-

18090	MM_NUM_CC_MAGAZINE_PARAM		N02, N09	FBW		
-	Number of OEM magazine data (SRAM)		DWORD	PowerOn		
-						
-	-	0	0	10	2/2	M

**Description:** Number of magazine data (of type Integer) which are available to the user or the compile cycle.  
This machine data increases the buffered memory requirement by sizeof(int)\*max. number of magazines.  
Related to:  
MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK  
MD18084 \$MN\_MM\_NUM\_MAGAZINE

18091	MM_TYPE_CC_MAGAZINE_PARAM		N02, N09	-		
-	Type of OEM magazine data (SRAM)		DWORD	PowerOn		
-						
-	10	3, 3, 3, 3, 3, 3, 3, 3...	1	6	2/2	M

**Description:** Work may only be done with the default setting.  
Individual types can be assigned to the parameters in this way. Array index n can take values from 0 to that of MD18090 \$MN\_MM\_NUM\_CC\_MAGAZINE\_PARAM.

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The possible values of the MD = 1, 2, 3, 4, 5 and 6 stand for the NC language types: BOOL, CHAR, INT, REAL, STRING and AXIS. The type FRAME cannot be defined here. The type STRING can have a max. length of 31 characters. Example:

MD18090 \$MN\_MM\_NUM\_CC\_MAGAZINE\_PARAM=1

MD18091 \$MN\_MM\_TYPE\_CC\_MAGAZINE\_PARAM=5

Parameter \$TC\_MAPC1 = "UserMagazine" can then be programmed.

Buffered work memory is used. A value change may but need not necessarily lead to a reconfiguration of the buffered memory.

Related to:

MD18090 \$MN\_MM\_NUM\_CC\_MAGAZINE\_PARAM

MD18084 \$MN\_MM\_NUM\_MAGAZINE

18092	MM_NUM_CC_MAGLOC_PARAM			N02, N09	FBW	
-	Number of OEM magazine location data			DWORD	PowerOn	
-						
-	-	0	0	10	2/2	M

**Description:** Number of magazine location data parameters (of type Integer) which are available to the user or the compile cycle.

This machine data increases the buffered memory requirement by sizeof(int)\*max. number of magazines.

Related to:

MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK

MD18086 \$MN\_MM\_NUM\_MAGAZINE\_LOCATION

18093	MM_TYPE_CC_MAGLOC_PARAM			N02, N09	-	
-	Type of OEM magazine location data (SRAM)			DWORD	PowerOn	
-						
-	10	3, 3, 3, 3, 3, 3, 3, 3...	1	6	2/2	M

**Description:** Work may only be done with the default setting.

Individual types can be assigned to the parameters in this way. The array index n can accept values from 0 to the value of MD18090

\$MN\_MM\_NUM\_CC\_MAGAZINE\_PARAM.

The possible values of the MD = 1, 2, 3, 4 and 6 represent the NC language types

- 1 BOOL,
- 2 CHAR,
- 3 INT,
- 4 REAL and
- 6 AXIS

The type STRING is explicitly not possible here. The value 5 is treated like 2. The type FRAME cannot be defined here.

Example:

MD18090 \$MN\_MM\_NUM\_CC\_MAGAZINE\_PARAM=1

MD18091 \$MN\_MM\_TYPE\_CC\_MAGAZINE\_PARAM=2

"UserMagazineLocation" can then be programmed for the parameter \$TC\_MPPC1.

Buffered working memory is used. A value change can - but need not - lead to reconfiguration of the buffered memory.

Related to:

MD18092 \$MN\_MM\_NUM\_CC\_MAGLOG\_PARAM



18094	MM_NUM_CC_TDA_PARAM			N02, N09	H2	
-	Number of OEM tool data (SRAM)			DWORD	PowerOn	
-						
-	-	0	0	10	2/2	M

**Description:** Number of tool-specific data (of type Integer) which can be created per tool, and which are available to the user or the compile cycle.  
This machine data increases the buffered memory requirement by sizeof(double)\*max. number of tools.  
Related to:  
MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK  
MD18082 \$MN\_MM\_NUM\_TOOL

18095	MM_TYPE_CC_TDA_PARAM			N02, N09	-	
-	Type of OEM tool data (SRAM)			DWORD	PowerOn	
-						
-	10	4, 4, 4, 4, 4, 4, 4, 4...	1	6	2/2	M

**Description:** Work may only be done with the default setting.  
Individual types can be assigned to the parameters in this way. The array index n can accept values from 0 to the value of MD18094 \$MN\_MM\_NUM\_CC\_TDA\_PARAM.  
The possible values of the MD = 1, 2, 3, 4, 5 and 6 represent the NC language types  
1 BOOL,  
2 CHAR,  
3 INT,  
4 REAL,  
5 STRING and  
6 AXIS.  
The type FRAME cannot be defined here. The type STRING can be up to 31 characters long.  
Example:  
MD18094 \$MN\_MM\_NUM\_CC\_TDA\_PARAM=1  
MD18095 \$MN\_MM\_TYPE\_CC\_TDA\_PARAM=5  
"UserCuttingEdge" can then be programmed for parameter \$TC\_TPC1.  
Buffered working memory is used. A value change can - but need not - lead to reconfiguration of the buffered memory.  
Related to:  
MD18094 \$MN\_MM\_NUM\_CC\_TDA\_PARAM  
MD18082 \$MN\_MM\_NUM\_TOOL

18096	MM_NUM_CC_TOA_PARAM			N02, N09	G2	
-	Number of data per tool edge for compile cycles (SRAM)			DWORD	PowerOn	
-						
-	-	0	0	10	2/2	M

**Description:** Number of TOA data (of type Real) which can be created per tool, and which are available to the user or the compile cycle.  
This MD increases the buffered memory requirement by sizeof(double)\*max. number of cutting edges.

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Related to:  
 MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK  
 MD18100 \$MN\_MM\_NUM\_CUTTING\_EDGES\_IN\_TOA

18097	MM_TYPE_CC_TOA_PARAM			N02, N09	-	
-	Type of OEM data per cutting edge (SRAM)			DWORD	PowerOn	
-						
-	10	4, 4, 4, 4, 4, 4, 4...	1	6	2/2	M

**Description:** Work may only be done with the default setting.  
 Individual types can be assigned to the parameters in this way. The array index n can accept values from 0 to the value of MD18096 \$MN\_MM\_NUM\_CC\_TOA\_PARAM.  
 The possible values of the MD = 1, 2, 3, 4 and 6 represent the NC language types  
 1 BOOL,  
 2 CHAR,  
 3 INT,  
 4 REAL and  
 6 AXIS.  
 The type STRING is explicitly not possible here. The value 5 is treated like value 2).  
 The type FRAME cannot be defined here.  
 Example:  
 MD18096 \$MN\_MM\_NUM\_CC\_TOA\_PARAM=1  
 MD18097 \$MN\_MM\_TYPE\_CC\_TOA\_PARAM=2  
 "A" can then be programmed for parameter \$TC\_DPC1.  
 Buffered working memory is used. A value change can - but need not - lead to reconfiguration of the buffered memory.  
 Related to:  
 MD18096 \$MN\_MM\_NUM\_CC\_TOA\_PARAM  
 MD18100 \$MN\_MM\_NUM\_CUTTING\_EDGES\_IN\_TOA

18098	MM_NUM_CC_MON_PARAM			N02, N09	FBW	
-	Number of monitoring data per tool for compile cycles			DWORD	PowerOn	
-						
-	-	0	0	10	2/2	M

**Description:** Number of monitoring data (of type Integer) which can be created per tool, and which are available to the user or the compile cycle.  
 This MD increases the buffered memory requirement by sizeof(int)\*max. number of cutting edges.  
 Related to:  
 MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK  
 MD18100 \$MN\_MM\_NUM\_CUTTING\_EDGES\_IN\_TOA

18099	MM_TYPE_CC_MON_PARAM			N02, N09	FBW	
-	Type of OEM monitor data (SRAM)			DWORD	PowerOn	
-						
-	10	3, 3, 3, 3, 3, 3, 3, 3...	1	6	2/2	M

**Description:**

Work may only be done with the default setting.

Individual types can be assigned to the parameters in this way. The array index n can accept values from 0 to the value of MD18098 \$MN\_MM\_NUM\_CC\_MON\_PARAM.

Possible values of the MD = 1, 2, 3, 4 and 6 represent the NC language types

- 1 BOOL,
- 2 CHAR,
- 3 INT,
- 4 REAL and
- 6 AXIS.

The FRAME type cannot be defined here.

(The type STRING is explicitly not possible here. The value 5 is treated like value 2.)

Example:

MD18098 \$MN\_MM\_NUM\_CC\_MON\_PARAM=1

MD18099 \$MN\_MM\_TYPE\_CC\_MON\_PARAM=2

"UserCuttingEdge" can then be programmed for the parameter \$TC\_MOPC1.

Buffered working memory is used. A value change can - but need not - lead to reconfiguration of the buffered memory.

Related to:

MD18100 \$MN\_MM\_NUM\_CUTTING\_EDGES\_IN\_TOA

MD18098 \$MN\_MM\_NUM\_CC\_MON\_PARAM

18100	MM_NUM_CUTTING_EDGES_IN_TOA			N02, N09	W1	
-	Tool offsets in the TO range (SRAM)			DWORD	PowerOn	
-						
-	-	30	0	1500	7/2	M

**Description:**

Defines the number of tool cutting edges in a TO area. This machine data reserves approximately 250 bytes of battery-backed memory per TOA block for each tool cutting edge, irrespective of the tool type.

Tools with cutting edges of type 400-499 (= grinding tools) also occupy the location of a cutting edge.

Example:

Defining 10 grinding tools each of which has one cutting edge. Then at least:

MD18082 \$MN\_MM\_NUM\_TOOL = 10

MD18100 \$MN\_MM\_NUM\_CUTTING\_EDGES\_IN\_TOA = 20 must apply.

See also MD18082 \$MN\_MM\_NUM\_TOOL

Buffered user memory is used.

Special cases:

The battery-backed data are lost if this machine data is altered.

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18102	MM_TYPE_OF_CUTTING_EDGE			N02, N09	W1	
-	Type of D No. programming (SRAM)			DWORD	PowerOn	
-						
-	-	0	0	1	7/2	M

**Description:** This MD activates the 'flat D number management'.  
 The type of D programming can be determined by individual values:

- direct or
- indirect programming.

The default value is zero. This means that the NCK manages the T and D numbers.  
 The NCK only accepts a value > 0 if bit 0 is not set in MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK. That means the tool management function cannot be active at the same time.  
 Value:    Meaning  
 -----  
 -----  
 0:    No 'flat D number management' active  
 1:    D numbers are programmed directly and absolutely  
 Values 2, 3 have not yet been released

18104	MM_NUM_TOOL_ADAPTER			N02, N09	W1	
-	Tool adapters in TO area (SRAM)			DWORD	PowerOn	
-						
-	-	-1	-1	600	7/2	M

**Description:** Number of tool adapters in the TO area.  
 The function can only be used if there are magazine locations in the NCK.  
 The tool management function must be active.  
 Bit 7 (=0x80) also has to be set in MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK for the setting to become active.  
 Adapter data blocks and the cutting edge-specific basic/adaptor dimensions are mutually exclusive. This means that if adapter data are defined, then the parameters \$TC\_DP21, \$TC\_DP22, \$TC\_DP23 and their values are generally not available in the NCK.  
 -1:  
 An adapter is automatically assigned to each magazine location.  
 This means that internally the same number of adapters are provided as magazine locations are provided by MD18086 \$MN\_MM\_NUM\_MAGAZINE\_LOCATION.  
 0:  
 No adapter data definitions possible. The cutting edge-specific parameters \$TC\_DP21, \$TC\_DP22, \$TC\_DP23 are available provided that adapters are used outside the active TMMG.  
 > 0:  
 -  
 See the machine data:  
 MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK,  
 MD20310 \$MC\_TOOL\_MANAGEMENT\_MASK,  
 MD18084 \$MN\_MM\_NUM\_MAGAZINE,  
 MD18086 \$MN\_MM\_NUM\_MAGAZINE\_LOCATION

18105	MM_MAX_CUTTING_EDGE_NO			N02, N09	W1	
-	maximum value of D number			DWORD	PowerOn	
-						
-	-	9	1	32000	7/2	M

**Description:**

Maximum value of the D number.

This does not affect the maximum number of D numbers per cutting edge.

The monitoring of the D number assignment associated with this value is only active when the D numbers are redefined. This means that existing data blocks are not subsequently checked if the MD is changed.

The following settings are advantageous:

MD18105 \$MN\_MM\_MAX\_CUTTING\_EDGE\_NO is equal to

MD18106 \$MN\_MM\_MAX\_CUTTING\_EDGE\_PER\_TOOL.

If MD18105 \$MN\_MM\_MAX\_CUTTING\_EDGE\_NO is selected > MD18106 \$MN\_MM\_MAX\_CUTTING\_EDGE\_PER\_TOOL, then the difference between offset number D and cutting-edge number CE should be known.

See also language commands CHKDNO, CHKDM, GETDNO, SETDNO, DZERO.

The machine data is not evaluated with the function "flat D number", and therefore has no significance there.

The MD can affect the memory requirement:

If the relation between the two, above-mentioned MDs changes from "less than or equal to" to "greater than" or vice versa, then this affects the non-buffered memory requirement.

Related to:

MD18106 \$MN\_MM\_MAX\_CUTTING\_EDGE\_PER\_TOOL

18106	MM_MAX_CUTTING_EDGE_PERTOOL			N02, N09	W1	
-	maximum number of D numbers per tool			DWORD	PowerOn	
-						
-	-	9	1	12	7/2	M

**Description:**

Maximum number of cutting edges (D offsets) per tool (per T number).

This enables more safety to be achieved in the data definition. The value can be set to 1 if only tools with one cutting edge are used. This prevents more than one cutting edge being assigned to a tool in the data definition.

The following settings are advantageous: MD18105 \$MN\_MM\_MAX\_CUTTING\_EDGE\_NO

is equal to MD18106 \$MN\_MM\_MAX\_CUTTING\_EDGE\_PER\_TOOL. If MD18105

\$MN\_MM\_MAX\_CUTTING\_EDGE\_NO is selected > MD18106

\$MN\_MM\_MAX\_CUTTING\_EDGE\_PER\_TOOL, then the difference between offset number D and cutting-edge number CE should be known.

See also language commands CHKDNO, CHKDM, GETDNO, SETDNO, DZERO.

The machine data is not evaluated with the function "flat D number", and therefore has no significance there.

The data can affect the memory requirement.

The MD can affect the memory requirement.

If the relation between the two, above-mentioned MDs changes from "less than or equal to" to "greater than" or vice versa, then this affects the non-buffered memory requirement.

Related to:

MD19105 \$MN\_MM\_MAX\_CUTTING\_EDGE\_NO

18108	MM_NUM_SUMCORR			N02, N09	W1	
-	Resulting offsets in TO area (SRAM)			DWORD	PowerOn	
-						
-	-	-1	-1	9000	7/2	M

**Description:**

Total number of resulting offsets in the NCK.

The value = -1 means that the number of resulting offsets is equal to the number of cutting edges multiplied by the number of resulting offsets per cutting edge.

A value > 0 and < "number of cutting edges multiplied by the number of resulting offsets per cutting edge" means that a maximum "number of resulting offsets per cutting edge" can be defined per cutting edge but do not have to be. This means that buffered memory can be used economically. Only those cutting edges for which explicit data have been defined have a resulting offset data block.

Buffered memory is reserved. The memory requirement for a resulting offset doubles if "setup offset active" has also been configured, see MD18112 \$MN\_MM\_KIND\_OF\_SUMCORR.

See also:

MD18100 \$MN\_MM\_NUM\_CUTTING\_EDGES\_IN\_TOA,

MD18110 \$MN\_MM\_MAX\_SUMCORR\_PER\_CUTTEDGE

18110	MM_MAX_SUMCORR_PER_CUTTEDGE			N02, N09	S7	
-	Max. number of additive offsets per edge (SRAM)			DWORD	PowerOn	
-						
-	-	1	1	6	7/2	M

**Description:**

Maximum number of resulting offsets per cutting edge.

If MD18108 \$MN\_MM\_NUM\_SUMCORR > 0 then:

The data is not memory defining, but is only used for monitoring.

If MD18108 \$MN\_MM\_NUM\_SUMCORR = -1 then:

The data is memory defining.

See also

MD18108 \$MN\_MM\_NUM\_SUMCORR,

MD18100 \$MN\_MM\_NUM\_CUTTING\_EDGES\_IN\_TOA.

18112	MM_KIND_OF_SUMCORR			N02, N09	W1	
-	Properties of resulting offsets in TO area (SRAM)			DWORD	PowerOn	
-						
-	-	0	0	0x1F	7/2	M

**Description:**

Properties of the resulting offsets in NCK.

Bit 0=0 "Resulting offsets fine" are backed up when the tool data are backed up.

Bit 0=1 "Resulting offsets fine" are backed up when the tool data are backed up.

Bit 1=0 Set-up offsets are backed up when the tool data are backed up.

Bit 1=1 Set-up offsets are not backed up when the tool data are backed up.

Bit 2=0 If work is done with the function tool management (TOOLMAN) and/or tool monitoring (TMMO), existing "resulting offsets fine/setup offsets" are not affected when the tool status is set to "active".

Bit 2 =1 Existing resulting offsets are set to zero when the tool status is set to "active".

Bit 3=0 If work is done with the function "TOOLMAN" +"adapter", the "resulting offsets fine"/setup offsets are transformed.

Bit 3=1 No transformation of the "resulting offsets fine"/setup offsets

Bit 4=0 No set-up offset data blocks

Bit 4=1 Set-up offset data blocks are additionally created. Whereby the resulting offset is composed of the sum of the set-up offset + "resulting offset fine"

Changing the status of bits 0, 1, 2, 3 does not change the memory structure.

Changing the status of bit 4 triggers restructuring of the buffered memory after the next PowerOn.

See also

MD18100 \$MN\_MM\_NUM\_CUTTING\_EDGES\_IN\_TOA

MD18108 \$MN\_MM\_NUM\_SUMCORR

MD18110 \$MN\_MM\_MAX\_SUMCORR\_PER\_CUTTEDGE

MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK,

MD20310 \$MC\_TOOL\_MANAGEMENT\_MASK,

MD18086 \$MN\_MM\_NUM\_MAGAZINE\_LOCATION,

MD18104 \$MN\_MM\_NUM\_TOOL\_ADAPTER

18114	MM_ENABLE_TOOL_ORIENT	N02, N09	W1, F2
-	Assign tool cutting edge orientation	DWORD	PowerOn
-			
-	-	0	0
-		3	7/2 M

**Description:**

The function allows an orientation deviating from the default value to be assigned to each tool cutting edge.

Value = 0:

The tool orientation function is inactive.

Value = 1:

The system parameter \$TC\_DPV[n, m] is assigned to each tool cutting edge D=m of the tool T=n, with the aid of which one of 6 possible tool orientations in positive or negative coordinate direction can be defined.

Value = 2:

Not only the system parameter \$TC\_DPV[n, m] but also the additional three system parameters \$TC\_DPV3[n, m], \$TC\_DPV4[n, m] and \$TC\_DPV5[n, m] are assigned to each tool cutting edge D=m of the tool T=n, with the aid of which any spatial tool orientation can be defined

T, D are the NC addresses T and D with which the tool change or the tool selection and the offset selection are programmed.

Value = 3:

Not only the system parameters \$TC\_DPV[n, m] and \$TC\_DPV3 - \$TC\_DPV5 but also the additional three system parameters \$TC\_DPVN3[n, m], \$TC\_DPVN4[n, m] and \$TC\_DPVN5[n, m] are assigned to each tool cutting edge D=m of the tool T=n, with the aid of which a vector (normal vector) can be defined that is preferably perpendicular to the tool orientation. The normal vector may be modified so that it lies in the plane formed by the orientation and the programmed normal vector but perpendicular to the orientation

The orientation and the possibly modified normal vector together define a complete orientation coordinate system. The machine data affects the requirement for battery-backed memory.

18116	MM_NUM_TOOL_ENV			N02, N09	W1	
-	Number of tool environments in the TO area (SRAM)			DWORD	PowerOn	
-						
-	-	0	0	600	7/2	M

**Description:** Total number of tool environments in the NCK.  
Battery-backed memory is reserved.

18118	MM_NUM_GUD_MODULES			N02	S7	
-	Number of GUD files in active file system (SRAM)			DWORD	PowerOn	
-						
-	-	7	1	9	7/2	M

**Description:** A GUD block corresponds to a file in which user-defined data can be stored. 9 GUD blocks are available of which 3 are already assigned to specific users/applications.

UGUD\_DEF\_USER (block for user)

SGUD\_DEF\_USER (block for SIEMENS)

MGUD\_DEF\_USER (block for machine manufacturer)

Special cases:

The number of GUD modules is determined by the GUD module with the highest number entered.

Example:

If the following GUD modules are defined,

UGUD

MGUD

GUD5

GUD8

then the machine data must be set to a value of 8, signifying a memory requirement of 8 x 120 bytes = 960 bytes.

It is therefore advisable to selected the "lowest" possible GUD module. If GUD modules UGUD and MGUD have not been assigned elsewhere, then they may be used for this purpose.

Related to:

MD18150 \$MN\_MM\_GUD\_VALUES\_MEM

(Memory space for user variables)

18120	MM_NUM_GUD_NAMES_NCK			N02	S7	
-	Number of global user variable names (SRAM)			DWORD	PowerOn	
-						
-	-	60	60	32000	7/2	M

**Description:** Defines the number of user variables for NCK global user data (GUD). Approximately 80 bytes of memory per variable are reserved in the SRAM for the names of the variables. The additional memory required for the value of the variable depends on the data type of the variable. The number of available NCK global user data is exhausted on reaching the limit value set in MD18120 \$MN\_MM\_NUM\_GUD\_NAMES\_NCK or MD18150 \$MN\_MM\_GUD\_VALUES\_MEM (memory space for user variables).

Buffered user memory is used.

Special cases:

The battery-backed data are lost if this machine data is altered.



Related to:

MD18150 \$MN\_MM\_GUD\_VALUES\_MEM  
(Memory space for user variables)

18130	MM_NUM_GUD_NAMES_CHAN		N02	S7		
-	Number of channel-specific user variable names (SRAM)		DWORD	PowerOn		
-						
-	-	450	450	32000	7/2	M

**Description:** Defines the number of user variable names for channel-specific global user data (GUD). Approximately 80 bytes of memory are reserved in the SRAM for each variable name. The additional memory required for the value of the variable is equal to the size of the data type of the variable multiplied by the number of channels. This means that each channel has its own memory available for the variable values. The number of available channel-specific global user data is exhausted on reaching the limit value set in MD18130 \$MN\_MM\_NUM\_GUD\_NAMES\_CHAN or MD18150 \$MN\_MM\_GUD\_VALUES\_MEM (memory space for user variables).

The name created with the DEF statement is valid for all channels.

The memory requirement for the variable value is equal to the size of the data type multiplied by the number of channels.

Buffered user memory is used.

Special cases:

The battery-backed data are lost if this machine data is altered.

Related to:

MD18150 \$MN\_MM\_GUD\_VALUES\_MEM  
(Memory space for user variables)

18150	MM_GUD_VALUES_MEM		N02	A2		
-	Memory location for global user variable values (SRAM)		DWORD	PowerOn		
-						
-	-	196	136	32000	7/2	M

**Description:** The specified value reserves memory space for the variable values of the global user data (GUD). The dimensioning of the memory depends to a large extent on the data types used for the variables.

Overview of the memory requirements of the data types:

Data type	Memory requirement
REAL	8 bytes
INT	4 bytes
BOOL	1 byte
CHAR	1 byte
STRING	1 byte per character, 100 characters permitted per string
AXIS	4 bytes
FRAME	up to 1KB depending on control model

The total memory required by a channel or axis-specific global user variable is the memory requirement of the variables multiplied by the number of channels or axes. The number of global user variables available is given when the limit defined in MD18120 \$MN\_MM\_NUM\_GUD\_NAMES\_NCK, MD18130 \$MN\_MM\_NUM\_GUD\_NAMES\_CHAN, MD18140 \$MN\_MM\_NUM\_GUD\_NAMES\_AXIS or MD18150 \$MN\_MM\_GUD\_VALUES\_MEM is reached.

Buffered user memory is used.

1.3 NC machine data

Special cases:

The buffered data are lost if this machine data is altered!

Related to:

MD18118 \$MN\_MM\_NUM\_GUD\_MODULES

(Number of GUD blocks)

MD18120 \$MN\_MM\_NUM\_GUD\_NAMES\_NCK

(Number of global user variables)

MD18130 \$MN\_MM\_NUM\_GUD\_NAMES\_CHAN

(Number of channel-specific user variables)

18160	MM_NUM_USER_MACROS			N02	S7	
-	Number of macros (DRAM)			DWORD	PowerOn	
-						
-	-	82	82	32000	7/2	M

**Description:** Defines the number of macros that can be stored in the files `_N_SMAC_DEF`, `_N_MMAC_DEF` und `_N_UMAC_DEF`. Each of these files which is opened occupies at least one kbyte memory space for the file code in the part program memory. Another kbyte of memory is reserved for the file when the one kbyte file code limit is exceeded.

The dynamic user memory is used. For the stated number of macros, approximately 375 bytes are reserved per macro for management tasks.

18170	MM_NUM_MAX_FUNC_NAMES			N02	V2,A2	
-	Number of miscellaneous functions (cycles, DRAM)			DWORD	PowerOn	
-						
-	-	410	410	32000	7/2	M

**Description:** The data limits the maximum number of special functions over and above the predefined functions (such as sine, cosine, etc.) which can be used in

- cycle programs
- compile cycle software.

The function names are entered in the global NCK dictionary and must not conflict with the names that already exist.

The SIEMENS cycle package contains special functions that are taken into account by the default setting of the MD.

The data are stored in unbuffered memory. Approximately 150 bytes are required for each special function for management purposes.

Related to:

MD18180 \$MN\_MM\_NUM\_MAX\_FUNC\_PARAM (Number. of additional parameters)

18180	MM_NUM_MAX_FUNC_PARAM			N02	V2	
-	Number of additional parameters for cycles according to MD 18170			DWORD	PowerOn	
-						
-	-	6750	6750	32000	7/2	M

**Description:** Defines the maximum number of parameters required for the special functions in

- cycle programs
- compile cycle software.

50 parameters are required for the special functions of the SIEMENS cycle package, software version 1.

The data are stored in unbuffered memory. 72 bytes of memory are reserved for each parameter.

Related to:

MD18170 \$MN\_MM\_NUM\_MAX\_FUNC\_NAMES

(Number of special functions)

18190	MM_NUM_PROTECT_AREA_NCK			N12, N02, N06, N09	A3	
-	Number of files for machine-related protection zones (SRAM)			DWORD	PowerOn	
-						
-	-	0	0	10	7/2	M

**Description:** This machine data defines how many blocks are created for the protection zones available in the NCK.

Buffered memory is used.

Special cases:

The battery-backed data are lost if this machine data is altered.

References:

/FB/, A3, "Axis Monitoring, Protection Zones"

18200	MM_NUM_CCS_MAGAZINE_PARAM			N02, N09	FBW	
-	Number of Siemens OEM magazine data (SRAM)			DWORD	PowerOn	
-						
-	-	0	0	10	2/2	M

**Description:** Only when MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK, bit 0=1 ('H1') and bit 2=1 ('H4'), is set for TMMG (and option is set):

User or OEM data in the tool management (TMMG).

Number of Siemens OEM magazine data (standard format IN\_Int).

See also: MD18090 \$MN\_MM\_NUM\_CC\_MAGAZINE\_PARAM, MD18084 \$MN\_MM\_NUM\_MAGAZINE

Buffered user memory is used

18201	MM_TYPE_CCS_MAGAZINE_PARAM			N02, N09	FBW	
-	Type of Siemens OEM magazine data (SRAM)			DWORD	PowerOn	
-						
-	10	3, 3, 3, 3, 3, 3, 3, 3...	1	6	2/2	M

**Description:** Only when MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK, bit 0=1 ('H1') and bit 2=1 ('H4'), is set for TMMG (and option is set):

User or OEM data in the tool management.

Type of magazine-specific Siemens user data configured by MD18200 \$MN\_MM\_NUM\_CCS\_MAGAZINE\_PARAM.

Each parameter can be assigned its own type. The permissible types are:

Type	Value of the machine data
------	---------------------------

(See types

of the NC language)

-----	
BOOL	1
CHAR	2
INT	3
REAL	4
STRING	5 (permits identifier up to 31 characters long)

1.3 NC machine data

AXIS 6  
 FRAME not defined  
 See also: MD18200 \$MN\_MM\_NUM\_CCS\_MAGAZINE\_PARAM, MD18084 \$MN\_MM\_NUM\_MAGAZINE  
 Buffered user memory is used

18202	MM_NUM_CCS_MAGLOC_PARAM	N02, N09	FBW
-	No. of Siemens OEM magazine location data (SRAM)	DWORD	PowerOn
-			
-	0	0	10 2/2 M

**Description:** Only when MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK, bit 0=1 ('H1') and bit 2=1 ('H4'), is set for TMMG (and option is set):  
 User or OEM data in the tool management.  
 Number of Siemens OEM magazine location data (standard format IN\_Int).  
 See also: MD18092 \$MN\_MM\_NUM\_CC\_MAGLOC\_PARAM, MD18086 \$MN\_MM\_NUM\_MAGAZINE\_LOCATION  
 Buffered user memory is used

18203	MM_TYPE_CCS_MAGLOC_PARAM	N02, N09	FBW
-	Type of Siemens OEM magazine location data (SRAM)	DWORD	PowerOn
-			
-	10	3, 3, 3, 3, 3, 3, 3, 3...	1 6 2/2 M

**Description:** Only when MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK, bit 0=1 ('H1') and bit 2=1 ('H4'), is set for TMMG (and option is set)  
 User or OEM data in the tool management.  
 Type of magazine-specific Siemens user data configured by MD18202 \$MN\_MM\_NUM\_CCS\_MAGLOC\_PARAM.  
 Each parameter can be assigned its own type. The permissible types are:  
 Type Value of the machine data  
 (See types of the NC language)

- 
- BOOL 1
  - CHAR 2
  - INT 3
  - REAL 4
  - (STRING is explicitly impossible here; value 5 is treated like value 2)
  - AXIS 6
  - FRAME not defined
- See also: MD18202 \$MN\_MM\_NUM\_CCS\_MAGLOC\_PARAM, MM\_NUM\_MAGLOC  
 Buffered user memory is used

18204	MM_NUM_CCS_TDA_PARAM	N02, N09	FBW
-	Number of Siemens OEM tool data (SRAM)	DWORD	PowerOn
-			
-	0	0	10 2/2 M

**Description:** Only when MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK, bit 2=1 ('H4'), is set:  
 User or OEM data of the tools.  
 Number of Siemens OEM TDA (=tool-specific) data (standard format Int).  
 See also: MD18094 \$MN\_MM\_NUM\_CC\_TDA\_PARAM, MD18082 \$MN\_MM\_NUM\_TOOL  
 Buffered user memory is used

18205	MM_TYPE_CCS_TDA_PARAM			N02, N09	FBW	
-	Type of Siemens OEM tool data (SRAM)			DWORD	PowerOn	
-						
-	10	4, 4, 4, 4, 4, 4, 4, 4...	1	6	2/2	M

**Description:** Only when MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK, bit 2=1 ('H4'), is set:  
User or OEM data in the tool management.  
Type of tool-specific Siemens user data configured by MD18204 \$MN\_MM\_NUM\_CCS\_TDA\_PARAM.  
Each parameter can be assigned its own type. The permissible types are

Type	Value of the machine data
-----	
BOOL	1
CHAR	2
INT	3
REAL	4
STRING (long)	5 (permits identifiers up to 31 characters)
AXIS	6
FRAME	not defined

See also: MD18204 \$MN\_MM\_NUM\_CCS\_TDA\_PARAM, MD18082 \$MN\_MM\_NUM\_TOOL  
Buffered user memory is used

18206	MM_NUM_CCS_TOA_PARAM			N02, N09	FBW	
-	No. of Siemens OEM data per cutting edge (SRAM)			DWORD	PowerOn	
-						
-	-	0	0	10	2/2	M

**Description:** Only when MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK, bit 2=1 ('H4'), is set:  
User or OEM data of the tools.  
Number of Siemens OEM TOA data (standard format IN\_Real).  
See also: MD18096 \$MN\_MM\_NUM\_CC\_TOA\_PARAM, MD18100 \$MN\_MM\_NUM\_CUTTING\_EDGES\_IN\_TOA Buffered user memory is used

18207	MM_TYPE_CCS_TOA_PARAM			N02, N09	FBW	
-	Type of Siemens OEM data per cutting edge (SRAM)			DWORD	PowerOn	
-						
-	10	4, 4, 4, 4, 4, 4, 4, 4...	1	6	2/2	M

**Description:** Only when MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK, bit 2=1 ('H4'), is set:  
User or OEM data in the tool management.  
Type of cutting-edge-specific Siemens user data configured by MD18206 \$MN\_MM\_NUM\_CCS\_TOA\_PARAM.  
Each parameter can be assigned its own type. The permissible types are

Type	Value of the machine data
-----	
BOOL	1
CHAR	2
INT	3
REAL	4

1.3 NC machine data

- (STRING is explicitly impossible here; value 5 is treated like value 2)
- AXIS 6  
 FRAME not defined  
 See also: MD18206 \$MN\_MM\_NUM\_CCS\_TOA\_PARAM, MD18100 \$MN\_MM\_NUM\_CUTTING\_EDGES\_IN\_TOA  
 Buffered user memory is used

18208	MM_NUM_CCS_MON_PARAM	N02, N09	FBW
-	No. of Siemens OEM monitor data (SRAM)	DWORD	PowerOn
-			
-	0	0	10 2/2 M

**Description:** Only when MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK, bit 0 = 1 or bit 1 = 1 and bit 2=1 ('H4'), is set:  
 User or OEM data in the tool management.  
 Number of Siemens OEM monitoring data; standard format IN\_Int).  
 See also: MD18098 \$MN\_MM\_NUM\_CC\_MON\_PARAM, MD18100 \$MN\_MM\_NUM\_CUTTING\_EDGES\_IN\_TOA  
 Buffered user memory is used

18209	MM_TYPE_CCS_MON_PARAM	N02, N09	FBW
-	Type of Siemens OEM monitor data (SRAM)	DWORD	PowerOn
-			
-	10	3, 3, 3, 3, 3, 3, 3...	1 6 2/2 M

**Description:** Only when MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK, bit 0 = 1 or bit 1 = 1 and bit 2=1 ('H4'), is set:  
 User or OEM data in the tool management.  
 Type of monitoring-specific Siemens user data configured by MD18208 \$MN\_MM\_NUM\_CCS\_MON\_PARAM.  
 Each parameter can be assigned its own type. The permissible types are

Type	Value of the machine data
------	---------------------------

(See types of the NC language)

- 
- |      |   |
|------|---|
| BOOL | 1 |
| CHAR | 2 |
| INT  | 3 |
| REAL | 4 |
- (STRING is explicitly impossible here; value 5 is treated like value 2)
- AXIS 6  
 FRAME not defined  
 See also: MD18208 \$MN\_MM\_NUM\_CCS\_MON\_PARAM, MD18100 \$MN\_MM\_NUM\_CUTTING\_EDGES\_IN\_TOA  
 Buffered user memory is used

18210	MM_USER_MEM_DYNAMIC	EXP, N02	S7
-	User memory in DRAM [KB]	DWORD	PowerOn
-			
-	-	9000	0
		131072	7/2
			M

**Description:**

The DRAM in the NC is used jointly by the system and the user.

MD18210 \$MN\_MM\_USER\_MEM\_DYNAMIC defines the size of the DRAM available to the user. The input limits depend upon the hardware and software configurations of the CNC.

There are various types of user data in this memory area, for example.

- Local user data
- IPO block buffers
- User macros
- Diagnostics functions such as trace recording of times,.....
- Tool management trace
- Communication with 1-n HMIs; Value of n: See MD10134 \$MN\_MM\_NUM\_MMC\_UNITS.
- Reorg Log file (required for internal purposes of the NC program sequence)
- ...

Each additionally active channel occupies a substantial amount of memory here.

Each activated axis requires part of this memory.

Exactly how much that is depends largely on the control model and the software version.

The settable values depend on the hardware and software configurations.

The value of NCK is automatically set after unbuffered startup of the NCK or deletion of the memory. The value is then such that the free memory defined in MD18050 \$MN\_INFO\_FREE\_MEM\_DYNAMIC is available to the user.

(See the description of MD18050 \$MN\_INFO\_FREE\_MEM\_DYNAMIC).

If the value is set too high (in the sense that the memory required is more than that available on the memory module), the NCK responds at the next NCK reset/power on by automatically reducing the machine data value to the maximum possible value that the hardware permits.

Message alarm 6030 advises of this process. This corresponds to a legal response of the NCK and is not an incorrect response.

The essential significance of the machine data is not to release the entire memory to the user because the memory is shared between the system and the user. A part of the physically existing memory is reserved for future developments of the NCK.

The maximum amount of memory available on the hardware can be found by selecting a value for the data that is so large that, after the subsequent restart, message alarm 6030 indicates the maximum available memory. Applications that use the maximum available memory will in all probability have memory problems with a software conversion to a newer NCK version.

Upper and lower limits are not necessary. The software rejects values outside the permissible range and then automatically sets suitable values.

(See also message alarm 6030.)

The data in the dynamic memory are not battery-backed.

Note:

During power on, the system software compares the sum of all requests for dynamic memory with the value in MD18210 \$MN\_MM\_USER\_MEM\_DYNAMIC. Alarm 6000

1.3 NC machine data

"Memory allocated with standard machine data" is output if the memory required exceeds the memory capacity set with the MD. Alarm 6030 "User memory limit has been adapted" is output if the control detects during the power on that the memory capacity required by MD18210 \$MN\_MM\_USER\_MEM\_DYNAMIC is larger than the physical memory.

Related to:

The available dynamic memory can be taken from MD18050 \$MN\_INFO\_FREE\_MEM\_DYNAMIC (display data of the free dynamic memory).

18220	MM_USER_MEM_DPR	EXP, N02	-
-	User memory in DUAL PORT RAM (DPR)	DWORD	PowerOn
-			
-	-	0	-
			0/0
			M

**Description:** The functionality is not available in previous software versions.

18230	MM_USER_MEM_BUFFERED	N02	S7
-	User memory in SRAM	DWORD	PowerOn
-			
-	-	0	0
			22200
			7/1
			M

**Description:** Battery-backed user memory (in kbyte).

Various types of user data are stored in this memory area.

For example:

- NC part programs
- R variables
- Global user data (GUD)
- Definitions of the protection zones
- Correction tables EEC, CEC, QEC
- Tool / magazine data

...

This data is retained after control power off.

(Provided the data backup (battery,...) is in good working order and the Init switch is correctly set on the control).

This means that they are available unchanged after restart.

In the case of control models without a backup battery (e.g. 802S,...) there is, as a rule, an option of , specifically backing up the data by operation, so that they are available again after the next power on process.

The settable values depend on the hardware and software configurations.

The set values are designed for the minimum memory configuration of the particular control model.

256, 512 and 2000, 4000KB of battery-backed memory are available on the hardware.

Approximately 30KB of this physically present memory is used for internal purposes. This means that approximately 226, 482, 1970, 3970KB of user memory can be set.

After all the NCK functions have taken 'their' memory corresponding to the relevant machine data values, the rest of the memory is added to the part program memory. As a rule, the user will thus have more part program memory available than that guaranteed in the sales brochure. This 'more' may however vary from version to version.

If there are various memory configuration options for a control model then the data may have to be increased correspondingly when using the larger memory variants.



In this respect, see the meaning of MD18060 \$MN\_INFO\_FREE\_MEM\_STATIC

Special cases:

The battery-backed data are lost if this machine data is altered.

18231	MM_USER_MEM_BUFFERED_TYPEOF	N02	-			
-	Technology for data buffering	DWORD	PowerOn			
-						
-	3	1, 1, 1	0	1	ReadOnly	M

**Description:** Type of technology used for data buffering  
Value = 0 SRAM memory only  
Value = 1 SRAM and flash/disk memory  
If the value = 1 then see also MD18232 \$MN\_MM\_ACTFILESYS\_LOG\_FILE\_MEM  
Index 0 = Reserved  
Index 1 = Definition for the buffered data of the active file system (incl. machine data).  
Index 2 = Definition for the buffered data of the passive file system (part programs, cycles etc.)  
This value must be consistent with the value of MD11292 \$MN\_DRAM\_FILESYST\_CONFIG.  
A value of 0 means that \$MN\_DRAM\_FILESYST\_CONFIG must not have the 'H22' bits set.  
A value of 1 means that \$MN\_DRAM\_FILESYST\_CONFIG must have the 'H22' bits set.

18232	MM_ACTFILESYS_LOG_FILE_MEM	N02	-			
-	System: logfile size in SRAM [KB]	DWORD	PowerOn			
-						
-	3	200, 50, 30	0	32000	2/2	M

**Description:** Buffered log file for buffered data of the active file system ( in kbytes )  
Systems with slow data buffer media store changed buffered data in the internal system SRAM. When the buffer is full, all data of the active file system are made persistent. The buffer backs up the data persistence of the last persistence operation until the next power fail. After a power fail (power failure or power OFF), data that had not yet been made persistent at the time of the power fail can be restored from this buffer.  
The log file serves to minimize or totally avoid data loss in the event of power fail.  
1000 entries require approximately 70 kB.  
A value greater than 0 is only practicable if MD18231 \$MN\_MM\_USER\_MEM\_BUFFERED\_TYPEOF[1] = 1.  
A value equal to 0 means that the buffered data are not voltage loss safe if MD18231 \$MN\_MM\_USER\_MEM\_BUFFERED\_TYPEOF[1] = 1 (typical for SINUMERIK solution line)  
Example:  
With MD18232 \$MN\_MM\_ACTFILESYS\_LOG\_FILE\_MEM[2] = 0, data changes from synchronized actions can be excluded from the power fail data backup.  
An improved time response of the synchronized actions would be advantageous. This should only be set if the buffered data that are changed by the synchronized action are not safety-relevant.

1.3 NC machine data

Index Meaning

0 Preprocessing buffer

1 Buffer for data changes within the range of the tool change

2 Buffer for data changes of the main processing (especially synchronized actions)

See also MD17610 \$MN\_DEPTH\_OF\_LOGFILE\_OPT\_PF, which can be used to optimize the behavior.

18233	IS_CONTINOUS_DATA_SAVE_ON	EXP, N02	-			
-	System: Automatic saving of persistent data	BOOLEAN	PowerOn			
-						
-	3	TRUE, TRUE, TRUE	-	-	7/2	M

**Description:** The machine data is relevant only if MD18231 \$MN\_MM\_USER\_MEM\_BUFFERED\_TYPEOF = 1.

The default value should be changed only if the system is operated in an environment,

Value = 0 : Continuous saving of persistent data on disk/flash/etc. is deactivated.

The dynamic response of the software on systems of the SolutionLine range can thus be improved.

Value = 1 : Continuous automatic saving of persistent data on disk/flash/etc. is active.

Index 0 = Reserved

Index 1 = Definition for the buffered data of the active file system (incl. machine data).

Index 2 = Definition for the buffered data of the passive file system (part programs, cycles, ...).

The default value should be changed only for diagnostic purposes or for optimizing the dynamic response.

The default value should be changed only if the system is operated in an environment,

where no spontaneous shutdown of the system / spontaneous power failure occurs.

Otherwise, persistent data can be lost.

18234	MM_MEMORY_CONFIG_MASK	EXP, N02	-			
-	Setting of backup of persistent data of the current file system	DWORD	PowerOn			
-						
-	-	0x00	0x00	0x01	2/2	M

**Description:** Bit 0 is defined for \$MN\_USER\_MEM\_BUFFERED\_TYPEOF[1]=1. If the buffer size defined by \$MM\_ACTFILESYS\_LOG\_FILE\_MEM contains many data in the respective buffer, they are made persistent by the NCK software as follows:

Value = 0: synchronous data backup

Value = 1: asynchronous data backup

Asynchronous means not synchronized with the NCK sequence. Synchronous means that the preprocessing task in NCK is stopped for the time required for making the data persistent. Which setting is preferable depends on the hardware used and/or on the actual NCK application.

18235	MM_INCOA_MEM_SIZE			EXP	-	
-	Size of the DRAM memory for INCOA applications [Kbyte]			DWORD	PowerOn	
-						
-	-	20480	0	25600	7/2	M

**Description:** On cold restart of the control system, the default value of MD18235 \$MN\_MM\_INCOA\_MEM\_SIZE specifies the DRAM memory range that is available for INCOA applications in total. This MD can only be read. With the diagnostics function "Read current actual value" the memory space actually occupied by the INCOA applications can be determined.

18237	MM_CYC_DATA_MEM_SIZE			EXP, N02	-	
-	Cycle/display setting data in SRAM [kB]			DWORD	PowerOn	
-						
-	-	0	0	96	ReadOnly	M

**Description:** Size of the buffered memory for 'Setting data for cycles and display' [kB]

18240	MM_LUD_HASH_TABLE_SIZE			EXP, N02	S7	
-	Hash table size for LUD (DRAM)			DWORD	PowerOn	
-						
-	-	37	11	107	0/0	M

**Description:** Defines the size of the hash table for local user data (LUD). The value entered must be a primary number. The setting allows the optimization of

- the interpreter execution time (low value = longer execution time) and
- memory requirements (low value = less memory).

A larger table requires a smaller number of decoding operations for internally decoding the variables and consequently a shorter interpreter execution time. The value of this machine data affects the amount of dynamic memory required for managing the blocks for local user variables with REORG, see MD28010 \$MC\_MM\_NUM\_REORG\_LUD\_MODULES (Number of blocks for local user variables with REORG (DRAM)).

Note:  
This machine data is assigned internally by the control and must not be altered by the user.

18242	MM_MAX_SIZE_OF_LUD_VALUE			N02	V2	
-	Maximum memory block size for LUD/GUD values			DWORD	PowerOn	
-						
-	-	1200	1200	SLMAXVARBY TES	0/0	M

**Description:** Defines the net memory array size for LUD/GUD variables. Each NC program that defines at least one LUD/GUD variable or has call parameters then occupies at least one memory array of this size.

The LUD/GUD variables of a program may occupy the complete LUD/GUD value memory set for the channel. However, then there is no memory available for other programmes.

The memory for the LUD/GUD variables (that is defined for LUD by the channel-specific MD28040 \$MC\_MM\_LUD\_VALUES\_MEM and for GUD by the NCK-specific MD18150 \$MN\_MM\_GUD\_VALUES\_MEM) is divided into equally sized arrays of the size MD18242 \$MN\_MM\_MAX\_SIZE\_OF\_LUD\_VALUE.

1.3 NC machine data

Example:

```
MM_LUD_VALUES_MEM = 12 (kbytes gross)
MM_MAX_SIZE_OF_LUD_VALUE = 660 (bytes net)
                        + 16 (bytes management data per array)
                        -----
                        676 (bytes gross)
```

One then obtains  $12 \cdot 1024 / 676 = 18$  memory arrays each of 660 bytes.

This means that 12 NC programs can either each occupy one array or one NC program can define, for example, 18 variables of type Frame (whose size is approximately 660 bytes).

Data type	Memory requirement
REAL	8 bytes
INT	4 bytes
BOOL	1 byte
CHAR	1 byte
STRING	1 byte per character, 100 characters are possible per string
AXIS	4 bytes
FRAME	up to 1 kbyte (depending on control model)

Related to:

```
MD28040 $MC_MM_LUD_VALUES_MEM
(Memory size for local user variables (DRAM))
```

Warning:

The battery-backed data are lost when this machine data is changed!

The size of the NC language type Frame depends on the maximum number of channel axes generated by the NCK.

There are NCK systems with a maximum number of channel axes from 4 to 20. In the case of 20 axes, the type Frame then has a size of 660 bytes.

18250	MM_CHAN_HASH_TABLE_SIZE			EXP, N02	S7	
-	Hash table size for channel-specific data (DRAM)			DWORD	PowerOn	
-						
-	-	23	3	193	0/0	M

**Description:**

Defines the size of the hash table for channel-specific names. The value entered must be a primary number. The setting allows the optimization of

- the interpreter execution time (low value = longer execution time) and
- memory requirements (low value = less dynamic memory).

A larger table requires a smaller number of decoding operations for internally decoding the variables and consequently a shorter interpreter execution time. The value of this machine data affects the amount of dynamic memory required.

The memory required per channel in bytes is equal to the value entered multiplied by 68.

Note:

This machine data is assigned internally by the control and must not be altered by the user.

Warning:

The battery-backed data are lost if this machine data is altered!

18260	MM_NCK_HASH_TABLE_SIZE		EXP, N02	S7		
-	Hash table size for global data (DRAM)		DWORD	PowerOn		
-						
-	-	4001	537	4327	0/0	M

**Description:** Defines the size of the NCK-specific names. The value entered must be a primary number. The setting allows the optimization of

- the interpreter execution time (low value = longer execution time) and
- memory requirements (low value = less dynamic memory).

A larger table requires a smaller number of decoding operations for internally decoding the variables and consequently a shorter interpreter execution time. The value of this machine data affects the amount of dynamic memory required. The memory required in bytes is equal to the value entered multiplied by 68.

Note:

This machine data is assigned internally by the control and must not be altered by the user.

18270	MM_NUM_SUBDIR_PER_DIR		N02	S7		
-	Number of subdirectories (DRAM)		DWORD	PowerOn		
-						
-	-	256	-	-	ReadOnly	M

**Description:** Defines the maximum number of subdirectories that can be created in a directory or subdirectory of the passive file system.

This value is for information only, and cannot be changed.

See also MD18280 \$MN\_MM\_NUM\_FILES\_PER\_DIR (number of files per directory).

18280	MM_NUM_FILES_PER_DIR		N02	S7		
-	Number of files per directory (DRAM)		DWORD	PowerOn		
-						
-	-	512	-	-	ReadOnly	M

**Description:** Defines the maximum number of files that can be created in a directory or subdirectory of the passive file system.

This value is for information only, and cannot be changed.

See also MMD18270 \$MN\_MM\_NUM\_SUBDIR\_PER\_DIR (number of subdirectories per directory).

18290	MM_FILE_HASH_TABLE_SIZE		EXP, N02	S7		
-	Hash table size for files of a directory (SRAM)		DWORD	PowerOn		
-						
-	-	47	3	299	0/0	M

**Description:** Defines the size for the files of a directory. The value entered must be a primary number. The setting allows the optimization of

- the interpreter execution time (low value = longer execution time) and
- memory requirements (low value = less memory).

The value of this machine data affects the amount of static memory required for the management of directories, see MD18310 \$MN\_MM\_NUM\_DIR\_IN\_FILESYSTEM (number of directories in the passive file system)

Buffered user memory is used.

1.3 NC machine data

Note:

This machine data is assigned internally by the control and must not be altered by the user.

Special cases:

The battery-backed data are lost if this machine data is altered!

18300	MM_DIR_HASH_TABLE_SIZE			EXP, N02	S7	
-	Hash table size for subdirectories (SRAM)			DWORD	PowerOn	
-						
-	-	11	3	349	0/0	M

**Description:** Defines the size of the subdirectories of a directory. The value entered must be a primary number. The setting allows the optimization of

- the interpreter execution time (low value = longer execution time) and
- memory requirement (low value = less memory).

The value of this machine data affects the amount of static memory required for the management of directories, see MD18310 \$MN\_MM\_NUM\_DIR\_IN\_FILESYSTEM (number of directories in the passive file system).

Buffered user memory is used.

Note:

This machine data is assigned internally by the control and must not be altered by the user.

Special cases:

The battery-backed data are lost if this machine data is altered!

18310	MM_NUM_DIR_IN_FILESYSTEM			N02	S7	
-	Number of directories in passive file system (SRAM)			DWORD	PowerOn	
-						
-	-	30	30	256	7/2	M

**Description:** This machine data limits the number of directories in the passive file system.

It can be used to reserve memory in the SRAM for the management of the directories. The directories and subdirectories of the passive file system set up by the system are included in this machine data. The memory required for the management of the directories can be calculated as follows:

Memory required = a (440+28 (b+c)) bytes

a = Input value of MD18310 \$MN\_MM\_NUM\_DIR\_IN\_FILESYSTEM (no. of directories in passive file system)

b = Input value of MD19300 \$MN\_MM\_DIR\_HASH\_TABLE\_SIZE (HASH table size for subdirectories)

c = Input value of MD18290 \$MN\_MM\_FILE\_HASH\_TABLE\_SIZE (hash table size for the files of a directory)

Buffered user memory is used.

Special cases:

The battery-backed data are lost if this machine data is altered.

Related to:

MD18270 \$MN\_MM\_NUM\_SUBDIR\_PER\_DIR (Number of subdirectories)

18320	MM_NUM_FILES_IN_FILESYSTEM			N02	S7	
-	Number of files in passive file system (SRAM)			DWORD	PowerOn	
-						
-	-	750	64	1000	7/2	M

**Description:** Defines the number of files available in the part program memory. This machine data is used to reserve memory in SRAM - approximately 320 bytes per file - for managing the file memory. Each file created requires a minimum of one kbyte of memory for the file code. If the one kbyte limit for the file code is exceeded another kbyte is reserved for the file.

Buffered user memory is used.

Special cases:

The battery-backed data are lost if this machine data is altered.

Related to:

MD18280 \$MN\_MM\_NUM\_FILES\_PER\_DIR  
(Number of files in directories)

18321	MM_NUM_SYSTEM_FILES_IN_FS			N02	-	
-	Number of system files			DWORD	PowerOn	
-						
-	-	500	500	1000	1/1	M

**Description:** Number of temporary system files in the passive file system (see also MD18355 \$MN\_MM\_T\_FILE\_MEM\_SIZE);

For example: Compilations of cycles (preprocessing), system traces

18342	MM_CEC_MAX_POINTS			N01, N02	K3	
-	max. number of interpolation points on sag compensation (SRAM)			DWORD	PowerOn	
-						
-	62	128, 128, 128, 128, 128, 128, 128, 128...	0	2000	7/2	M

**Description:** The MD defines the memory space available for the compensation tables. When MD18342 \$MN\_MM\_CEC\_MAX\_POINTS = 0, no memory is set up for the table. The sag compensation function cannot then be used.

Caution!

If MD18342 \$MN\_MM\_CEC\_MAX\_POINTS[t] is changed, when the system is powered up, the buffered NC user memory is automatically reset. This deletes all user data in the buffered user memory (e.g. drive and HMI machine data, tool offsets, part programs etc.).

Related to:

SD41300 \$SN\_CEC\_TABLE\_ENABLE[t]

Evaluation of the sag compensation table (t) enabled.

References:

/FB/, S7, "Memory Configuration"

18350	MM_USER_FILE_MEM_MINIMUM			EXP, N02	S7	
-	Minimum size of the part program memory			DWORD	PowerOn	
-						
-	-	0	0	0	0/0	M

**Description:** Not relevant on SolutionLine systems.

18352	MM_U_FILE_MEM_SIZE			EXP, N02	S7	
-	End user memory for part programs/cycles/files			DWORD	PowerOn	
-						
-	3	2560, 0, 0	0	15360, 15360, 15360	2/2	M

**Description:** The machine data is not available or not defined for PowerLine control models.

End user memory for files in the passive file system ( in kbyte ).

There are various types of user data in this memory area.

E.g.: NC part programs, cycle programs of the end user, diagnostic files, . . . .

The settable values depend on the hardware and software configurations.

The settable size of the part program memory is, apart from the upper limit value,

determined by the MD18230 \$MN\_MM\_USER\_MEM\_BUFFERED and can also be determined by a software option.

Index 0 = Size of the battery-backed part program / cycle program memory

Index 1 = Reserved

Index 2 = Reserved

18353	MM_M_FILE_MEM_SIZE			EXP, N02	S7	
-	Memory capacity for machine manufacturer's cycles/files			DWORD	PowerOn	
-						
-	3	512, 0, 0	0	15360, 15360, 15360	1/1	M

**Description:** The machine data is not available or not defined for PowerLine control models.

Memory for machine manufacturer files in the passive file system ( in kbyte ).

The machine manufacturer's files are in this memory area of the passive file system.

E.g.: cycle programs

The settable values depend on the hardware and software configurations.

The settable size of the memory is, apart from the upper limit value, determined by the MD18230 \$MN\_MM\_USER\_MEM\_BUFFERED.

Index 0 = Minimum size of the battery-backed (persistent) part program / cycle program memory

Index 1 = Reserved

Index 2 = Reserved

18354	MM_S_FILE_MEM_SIZE			EXP, N02	-	
-	Index 0: Memory capacity for NC manufacturer's cycles/files			DWORD	PowerOn	
-						
-	3	3072, 0, 100	0	3072, 3072, 3072	7/2	M

**Description:** Memory for the control manufacturer's files in the passive file system ( in KB )

The control manufacturer's files are in this memory area of the passive file system, e.g.: cycle programs, system files

The settable values depend on the hardware and software configurations.



The settable size of the memory is, apart from the upper limit value, for index = 0 determined by MD18230 \$MN\_MM\_USER\_MEM\_BUFFERED.  
 For index 1 = Reserved.  
 For index 2 = limited by the size of the internally available battery-backed memory (SRAM).  
 Index 0 = Size of the battery-backed cycle program memory  
 Index 1 = Reserved  
 Index 2 = Size of the battery-backed memory for system files, e.g. storage location of the NRK fault file.

18355	MM_T_FILE_MEM_SIZE	EXP, N02	-			
-	Memory size for temporary files	DWORD	PowerOn			
-						
-	-	4608	4608	-	7/2	M

**Description:** Memory for temporary files in the passive file system ( in KB ), e.g. compilations of cycles (preprocessing), cycles on CF, system traces

18356	MM_E_FILE_MEM_SIZE	EXP, N02	-			
-	Memory size for the clipboard of external files	DWORD	PowerOn			
-						
-	3	128, 0, 0	0	15360, 15360, 15360	0/0	M

**Description:** Memory for the clipboard of external files in the passive file system (in kB)  
 The settable values depend on the hardware and software configuration.  
 The settable memory size is limited, except for the upper limit value, for index = 0 by MD18230 \$MN\_MM\_USER\_MEM\_BUFFERED.  
 for index = 1 reserved  
 for index = 2 reserved  
 Index 0 = size of the buffered clipboard  
 Index 1 = reserved  
 Index 2 = reserved

18360	MM_EXT_PROG_BUFFER_SIZE	N01	B1,K1			
-	FIFO buffer size for processing from external source (DRAM)	DWORD	PowerOn			
-						
-	-	50	30	1000000	7/2	M

**Description:** A FIFO buffer is needed on the NCK for each program level (main program or subprogram) that is processed externally (reload mode).  
 The size of the FIFO buffer is defined in kByte by MD18360 \$MN\_MM\_EXT\_PROG\_BUFFER\_SIZE.  
 MD18362 \$MN\_MM\_EXT\_PROG\_NUM sets the number of FIFO buffers that are simultaneously available.  
 During startup, the memory size determined by multiplying MD18360 \$MN\_MM\_EXT\_PROG\_BUFFER\_SIZE by MD18362 \$MN\_MM\_EXT\_PROG\_NUM is reserved in the DRAM.  
 If the stated value exceeds the available memory space, alarm 4077 is output when writing the machine data.  
 References:  
 /PGA/Programming Guide Advanced, Section 2

18362	MM_EXT_PROG_NUM			N01		K1
-	Number of program levels which can be simultaneously processed			BYTE		PowerOn
-						
-	-	1	0	13	7/2	M

**Description:** Number of program levels that can simultaneously be in "Processing from external source" mode NCK-wide.  
System resources are reserved for the HMI <-> NCK communication during "Processing from external source". Machine data defines the number of possible program levels.  
The memory space is reserved during power on by MD18360  
 $\$MN\_MM\_EXT\_PROG\_BUFFER\_SIZE * MD18362 \$MN\_MM\_EXT\_PROG\_NUM$ . If it is found during program execution that all system resources are occupied, this is reported by alarm 14600.

18370	MM_PROTOC_NUM_FILES			N02		D1,OEM
-	Max.no. of log files in passive file system			DWORD		PowerOn
-						
-	10	2, 0, 0, 0, 0, 2, 2, 2...	0	10	1/1	M

**Description:** Maximum number of log files in the passive file system.

18371	MM_PROTOC_NUM_ETPD_STD_LIST			N02		D1,OEM
-	Number of standard data lists ETPD.			DWORD		PowerOn
-						
-	10	25, 0, 0, 0, 0, 25, 25, 25...	0	25	1/1	M

**Description:** Number of standard data lists in the OPI module ETPD (user-specific)

18372	MM_PROTOC_NUM_ETPD_OEM_LIST			N02		D1,OEM
-	Number of OEM data lists ETPD.			DWORD		PowerOn
-						
-	10	0, 0, 0, 0, 0, 0, 0, 0...	0	20	1/1	M

**Description:** Number of OEM data lists in the OPI module ETPD (user-specific).

18373	MM_PROTOC_NUM_SERVO_DATA			N02		D1
-	Number of servo data for log			DWORD		PowerOn
-						
-	10	0, 0, 0, 0, 0, 10, 10, 10...	0	20	1/1	M

**Description:** Number of servo data which must be recordable at the same time (user-specific).

18374	MM_PROTOC_FILE_BUFFER_SIZE			N02		-
-	Size of log file buffer			DWORD		PowerOn
-						
-	10	8000, 8000, 8000, 8000, 8000, 8000, 8000...	5000	-	1/1	M

**Description:** Size of the data buffer between the IPO and preprocessing time levels of a log file [ Bytes ].

18375	MM_PROTOC_SESS_ENAB_USER	N02	-
-	Users enabled for sessions	BYTE	PowerOn
-			
-	10	0, 0, 0, 0, 0, 1, 1, 1...	0
		1	1/1
			M

**Description:** Users that are available for session management.

18390	MM_COM_COMPRESS_METHOD	EXP, N01, N02	-
-	Supported compression methods.	DWORD	PowerOn
-			
-	-	0x01	-
		-	2/2
			M

**Description:** Setting for the compression methods to be supported.

18391	TRACE_PATHNAME	EXP	-
-	Path for trace generation	STRING	PowerOn
NBUP			
-	-	-	1/1
			M

**Description:** Path on which traces are saved.  
The trace files are used for problem analysis by NCK development.

18392	TRACE_SAVE_OLD_FILE	EXP	-
-	Old trace files are retained	BOOLEAN	PowerOn
NBUP			
-	-	FALSE	-
		-	1/1
			M

**Description:** The old traces are no longer overwritten when new traces are created; instead, a version extension is added to the trace file name.  
At the current time this function is executed only if files are saved on the host file system (see TRACE\_PATHNAME).  
The trace files are used for problem analysis by NCK development.

18400	MM_NUM_CURVE_TABS	N02, N09	M3
-	Number of curve tables (SRAM)	DWORD	PowerOn
-			
-	-	0	0
		INT_MAX	1/1
			M

**Description:** Defines the maximum number of curve tables that can be stored in the SRAM of the entire system. A curve table consists of a number of curve segments.  
Related to:  
MD18402 \$MN\_MM\_NUM\_CURVE\_SEGMENTS

18402	MM_NUM_CURVE_SEGMENTS	N02, N09	M3, B3
-	Number of curve segments (SRAM)	DWORD	PowerOn
-			
-	-	0	0
		INT_MAX	1/1
			M

**Description:** Defines the maximum number of curve segments that can be stored in the SRAM of the entire system. The curve segments are a component of a curve table.  
Related to  
MD18400 \$MN\_MM\_NUM\_CURVE\_TABS

18403	MM_NUM_CURVE_SEG_LIN			N02, N09	M3	
-	Number of linear curve segments (SRAM)			DWORD	PowerOn	
-						
-	-	0	0	INT_MAX	1/1	M

**Description:** Number of linear curve segments in the SRAM available throughout the NCK.  
 A curve table may consist of "normal" curve segments and linear segments. The number of "normal" curve segments in the SRAM is defined by MD18402 \$MN\_MM\_NUM\_CURVE\_SEGMENTS, these curve segments can accommodate polynomials. Linear curve segments can only accommodate straight lines.  
 These linear curve segments are stored in battery-backed memory.

18404	MM_NUM_CURVE_POLYNOMS			N02, N09	M3,B3	
-	Number of curve table polynomials (SRAM)			DWORD	PowerOn	
-						
-	-	0	0	INT_MAX	1/1	M

**Description:** Defines the maximum total number of polynomials for curve tables that can be stored in the SRAM of the entire system. The polynomials are a component of a curve segment. A maximum of 3 polynomials are required for a curve segment. As a rule, only 2 polynomials are used for each curve segment.  
 Related to  
 MD18400 \$MN\_MM\_NUM\_CURVE\_TABS  
 MD18402 \$MN\_MM\_NUM\_CURVE\_SEGMENTS

18406	MM_NUM_CURVE_TABS_DRAM			N02, N09	M3	
-	Number of curve tables (DRAM)			DWORD	PowerOn	
-						
-	-	0	0	INT_MAX	1/1	M

**Description:** Number of curve tables in the DRAM available throughout the NCK.  
 The curve tables are stored either in the buffer memory or in the dynamic memory.  
 This MD is used to set the number of curve tables in the dynamic memory (DRAM).

18408	MM_NUM_CURVE_SEGMENTS_DRAM			N02, N09	M3	
-	Number of curve segments (DRAM)			DWORD	PowerOn	
-						
-	-	0	0	INT_MAX	1/1	M

**Description:** Number of polynomial curve segments in the DRAM available throughout the NCK.  
 The curve segments are stored either in the buffer memory or in the dynamic memory.  
 This MD is used to set the number of segments in the dynamic memory (DRAM).

18409	MM_NUM_CURVE_SEG_LIN_DRAM			N02, N09	M3	
-	Number of linear curve segments (DRAM)			DWORD	PowerOn	
-						
-	-	0	0	INT_MAX	1/1	M

**Description:** Number of linear curve segments in the DRAM available throughout the NCK.  
A curve table may consist of "normal" curve segments and linear segments. The number of "normal" curve segments in the DRAM is defined by MD18408 \$MN\_MM\_NUM\_CURVE\_SEGMENTS\_DRAM, these curve segments can accommodate polynomials. Linear curve segments can only accommodate straight lines.  
The curve segments are stored either in the buffer memory or in the dynamic memory. This MD defines the number of curve segments in the dynamic memory (DRAM).

18410	MM_NUM_CURVE_POLYNOMS_DRAM			N02, N09	M3	
-	Number of curve table polynomials (DRAM)			DWORD	PowerOn	
-						
-	-	0	0	INT_MAX	1/1	M

**Description:** Number of polynomials for curve tables in the DRAM available throughout the NCK.  
The polynomials for curve tables are stored in the buffer memory or in the dynamic memory.  
This MD is used to set the number of polynomials for curve tables in the dynamic memory (DRAM).

18450	MM_NUM_CP_MODULES			N02, N09	-	
-	Max. number of CP modules			DWORD	PowerOn	
-						
-	-	4	0	48	1/1	M

**Description:** Number of CP coupling modules available within the NCK  
The MD defines the max. permissible number of CP couplings and reserves the required dynamic memory (DRAM).

18452	MM_NUM_CP_MODUL_LEAD			N02, N09	-	
-	Maximum number of CP master values			DWORD	PowerOn	
-						
-	-	4	0	99	1/1	M

**Description:** Number of NCK-wide available CP master values.  
This MD defines the max. permissible number of CP master values and reserves the required dynamic memory (DRAM).

18500	MM_EXTCOM_TASK_STACK_SIZE			EXP, N02	S7	
-	Stack size for external communications task (DRAM)			DWORD	PowerOn	
-						
-	-	45	45	90	0/0	M

**Description:** Defines the size (KB) of the stack for external communication. The dynamic memory area is used.  
Note:  
This machine data is assigned internally by the control and must not be altered by the user.

18502	MM_COM_TASK_STACK_SIZE	EXP, N02	-
-	Stack size in KB for communication task (DRAM)	DWORD	PowerOn
-			
-	-	30	30
-	-	60	0/0
-	-		M

**Description:** Size of the stacks of the communication task in kbyte.  
The dynamic memory is used.

18510	MM_SERVO_TASK_STACK_SIZE	EXP, N02	S7
-	Stack size of servo task (DRAM)	DWORD	PowerOn
-			
-	-	30	30
-	-	60	0/0
-	-		M

**Description:** Defines the stack size for the SERVO task. The dynamic memory is used for this purpose.

Note:

This machine data is assigned internally by the control and must not be altered by the user.

18512	MM_IPO_TASK_STACK_SIZE	EXP, C02	-
-	Stack size of IPO task (DRAM)	DWORD	PowerOn
-			
-	-	45	45
-	-	90	0/0
-	-		M

**Description:** Size of the IPO task stack in kbyte.  
The dynamic memory is used.

18600	MM_FRAME_FINE_TRANS	N02	K2,M5
-	Fine offset with FRAME (SRAM)	DWORD	PowerOn
-			
-	-	1	0
-	-	1	7/2
-	-		M

**Description:** 0: The fine offset cannot be entered or programmed.  
Disabling fine offset saves a maximum of 10KB SRAM, (depending on MD28080 \$MC\_MM\_NUM\_USER\_FRAMES).  
1: The fine offset is possible for settable frames, the basic frame and the programmable frame by operator input or via program.

18601	MM_NUM_GLOBAL_USER_FRAMES	N02	K2,M5
-	Number of global predefined user frames (SRAM).	DWORD	PowerOn
-			
-	-	0	0
-	-	100	7/2
-	-		M

**Description:** Number of global predefined user frames.  
The value corresponds to the number of field elements for the predefined field \$P\_UIFR[].  
If the value of the data is greater than 0, then all settable fields are only global. The MD28080 \$MC\_MM\_NUM\_USER\_FRAMES is then ignored.

18602	MM_NUM_GLOBAL_BASE_FRAMES	N02	K2,M5
-	Number of global base frames (SRAM).	DWORD	PowerOn
-			
-	-	0	0
-		16	7/2
-			M

**Description:** Number of NCU basic frames.  
The value corresponds to the number for the predefined field \$P\_NCBFR[].

18660	MM_NUM_SYNACT_GUD_REAL	N02	-
-	Number of configurable GUD variables of type REAL	DWORD	PowerOn
-			
-	9	0, 0, 0, 0, 0, 0, 0, 0, 0...	0
-		32767	7/2
-			M

**Description:** The MD18660 \$MN\_MM\_NUM\_SYNACT\_GUD\_REAL[ ] can be used to extend individual GUD blocks by additional channel-specific parameter areas of type REAL. The GUD blocks are differentiated by the field index:

```
$MN_MM_NUM_SYNACT_GUD_REAL[0] = <value> -> extension of the SGUD block
$MN_MM_NUM_SYNACT_GUD_REAL[1] = <value> -> extension of the MGUD block
$MN_MM_NUM_SYNACT_GUD_REAL[2] = <value> -> extension of the UGUD block
$MN_MM_NUM_SYNACT_GUD_REAL[3] = <value> -> extension of the GUD4 block
$MN_MM_NUM_SYNACT_GUD_REAL[8] = <value> -> extension of the GUD9 block
```

In each case, fields with the following properties are created:

Data type REAL

Field size corresponding to <value> of the relevant machine data

Predefined names:

SYG\_RS[ ] -> Synact parameter of type REAL in the SGUD block

SYG\_RM[ ] -> Synact parameter of type REAL in the MGUD block

SYG\_RU[ ] -> Synact parameter of type REAL in the UGUD block

SYG\_R4[ ] -> Synact parameter of type REAL in the GUD4 block

....

SYG\_R9[ ] -> Synact parameter of type REAL in the GUD9 block

The parameters can be read and written both by the part program and also via synchronous actions.

18661	MM_NUM_SYNACT_GUD_INT	N02	-
-	Number of configurable GUD variables of type integer	DWORD	PowerOn
-			
-	9	0, 0, 0, 0, 0, 0, 0, 0, 0...	0
-		32767	7/2
-			M

**Description:** The MD18661 \$MN\_MM\_NUM\_SYNACT\_GUD\_INT[ ] can be used to extend individual GUD blocks by additional channel-specific parameter areas of type INTEGER. The GUD blocks are differentiated by the field index:

```
$MN_MM_NUM_SYNACT_GUD_INT[0] = <value> -> extension of the SGUD block
$MN_MM_NUM_SYNACT_GUD_INT[1] = <value> -> extension of the MGUD block
$MN_MM_NUM_SYNACT_GUD_INT[2] = <value> -> extension of the UGUD block
$MN_MM_NUM_SYNACT_GUD_INT[3] = <value> -> extension of the GUD4 block
$MN_MM_NUM_SYNACT_GUD_INT[8] = <value> -> extension of the GUD9 block
```

In each case, fields with the following properties are created:

Data type BOOL

Field size corresponding to <value> of the relevant machine data

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Predefined names:

SYG\_IS[ ] -> Synact parameter of type INT in the SGUD block

SYG\_IM[ ] -> Synact parameter of type INT in the MGUD block

SYG\_IU[ ] -> Synact parameter of type INT in the UGUD block

SYG\_I4[ ] -> Synact parameter of type INT in the GUD4 block

....

SYG\_I9[ ] -> Synact parameter of type INT in the GUD9 block

The parameters can be read and written both by the part program and also via synchronous actions.

18662	MM_NUM_SYNACT_GUD_BOOL	N02	-
-	Number of configurable GUD variables of type Boolean	DWORD	PowerOn
-			
-	9	0, 0, 0, 0, 0, 0, 0, 0...	0
		32767	7/2 M

**Description:** The MD18662 \$MN\_MM\_NUM\_SYNACT\_GUD\_BOOL[ ] can be used to extend individual GUD blocks by additional channel-specific parameter areas of type Boolean. The GUD blocks are differentiated by the field index:

\$MN\_MM\_NUM\_SYNACT\_GUD\_BOOL[0] = <value> -> extension of the SGUD block

\$MN\_MM\_NUM\_SYNACT\_GUD\_BOOL[1] = <value> -> extension of the MGUD block

\$MN\_MM\_NUM\_SYNACT\_GUD\_BOOL[2] = <value> -> extension of the UGUD block

\$MN\_MM\_NUM\_SYNACT\_GUD\_BOOL[3] = <value> -> extension of the GUD4 block

\$MN\_MM\_NUM\_SYNACT\_GUD\_BOOL[8] = <value> -> extension of the GUD9 block

In each case, fields with the following properties are created:

Data type BOOL

Field size corresponding to <value> of the relevant machine data

Predefined names:

SYG\_BS[ ] -> Synact parameter of type Boolean in the SGUD block

SYG\_BM[ ] -> Synact parameter of type Boolean in the MGUD block

SYG\_BU[ ] -> Synact parameter of type Boolean in the UGUD block

SYG\_B4[ ] -> Synact parameter of type Boolean in the GUD4 block

....

SYG\_B9[ ] -> Synact parameter of type Boolean in the GUD9 block

The parameters can be read and written both by the part program and also via synchronous actions.

18663	MM_NUM_SYNACT_GUD_AXIS	N02	-
-	Number of configurable GUD variables of type Axis	DWORD	PowerOn
-			
-	9	0, 0, 0, 0, 0, 0, 0, 0...	0
		32767	7/2 M

**Description:** The MD18663 \$MN\_MM\_NUM\_SYNACT\_GUD\_AXIS[ ] can be used to extend individual GUD blocks by additional channel-specific parameter areas of type AXIS. The GUD blocks are differentiated by the field index:

\$MN\_MM\_NUM\_SYNACT\_GUD\_AXIS[0] = <value> -> extension of the SGUD block

\$MN\_MM\_NUM\_SYNACT\_GUD\_AXIS[1] = <value> -> extension of the MGUD block

\$MN\_MM\_NUM\_SYNACT\_GUD\_AXIS[2] = <value> -> extension of the UGUD block

\$MN\_MM\_NUM\_SYNACT\_GUD\_AXIS[3] = <value> -> extension of the GUD4 block

\$MN\_MM\_NUM\_SYNACT\_GUD\_AXIS[8] = <value> -> extension of the GUD9 block

In each case, fields with the following properties are created:



Data type AXIS

Field size corresponding to <value> of the relevant machine data

Predefined names:

SYG\_AS[ ] -> Synact parameter of type AXIS in the SGUD block

SYG\_AM[ ] -> Synact parameter of type AXIS in the MGUD block

SYG\_AU[ ] -> Synact parameter of type AXIS in the UGUD block

SYG\_A4[ ] -> Synact parameter of type AXIS in the GUD4 block

....

SYG\_A9[ ] -> Synact parameter of type AXIS in the GUD9 block

The parameters can be read and written both by the part program and also via synchronous actions.

18664	MM_NUM_SYNACT_GUD_CHAR		N02	-		
-	Configurable GUD variable of type Char		DWORD	PowerOn		
-						
-	9	0, 0, 0, 0, 0, 0, 0, 0...	0	32767	7/2	M

**Description:**

The MD18664 \$MN\_MM\_NUM\_SYNACT\_GUD\_CHAR[ ]

can be used to extend individual GUD blocks by additional channel-specific parameter areas of type CHAR.

The GUD blocks are differentiated by the field index:

\$MN\_MM\_NUM\_SYNACT\_GUD\_CHAR[0] = <value> -> extension of the SGUD block

\$MN\_MM\_NUM\_SYNACT\_GUD\_CHAR[1] = <value> -> extension of the MGUD block

\$MN\_MM\_NUM\_SYNACT\_GUD\_CHAR[2] = <value> -> extension of the UGUD block

\$MN\_MM\_NUM\_SYNACT\_GUD\_CHAR[3] = <value> -> extension of the GUD4 block

\$MN\_MM\_NUM\_SYNACT\_GUD\_CHAR[8] = <value> -> extension of the GUD9 block

In each case, fields with the following properties are created:

Data type CHAR

Field size corresponding to <value> of the relevant machine data

Predefined names:

SYG\_CS[ ] -> Synact parameter of type CHAR in the SGUD block

SYG\_CM[ ] -> Synact parameter of type CHAR in the MGUD block

SYG\_CU[ ] -> Synact parameter of type CHAR in the UGUD block

SYG\_C4[ ] -> Synact parameter of type CHAR in the GUD4 block

....

SYG\_C9[ ] -> Synact parameter of type CHAR in the GUD9 block

The parameters can be read and written both by the part program and also via synchronous actions.

18665	MM_NUM_SYNACT_GUD_STRING		N02	-		
-	Configurable GUD variable of type STRING		DWORD	PowerOn		
-						
-	9	0, 0, 0, 0, 0, 0, 0, 0...	0	25	7/2	M

**Description:**

The MD18665 \$MN\_MM\_NUM\_SYNACT\_GUD\_STRING[ ] can be

used to extend individual GUD blocks by additional channel-specific parameter areas of type STRING.

The GUD blocks are differentiated by the field index:

\$MN\_MM\_NUM\_SYNACT\_GUD\_STRING[0] = <value> -> extension of the SGUD block

\$MN\_MM\_NUM\_SYNACT\_GUD\_STRING[1] = <value> -> extension of the MGUD block

\$MN\_MM\_NUM\_SYNACT\_GUD\_STRING[2] = <value> -> extension of the UGUD block

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\$MN\_MM\_NUM\_SYNACT\_GUD\_STRING[3] = <value> -> extension of the GUD4 block  
 \$MN\_MM\_NUM\_SYNACT\_GUD\_STRING[8] = <value> -> extension of the GUD9 block

In each case, fields with the following properties are created:

Data type STRING

Field size corresponding to <value> of the relevant machine data

The maximum length of a string is 31 characters.

Predefined names:

SYG\_SS[ ] -> Synact parameter of type STRING in the SGUD block

SYG\_SM[ ] -> Synact parameter of type STRING in the MGUD block

SYG\_SU[ ] -> Synact parameter of type STRING in the UGUD block

SYG\_S4[ ] -> Synact parameter of type STRING in the GUD4 block

....

SYG\_S9[ ] -> Synact parameter of type STRING in the GUD9 block

The parameters can be read and written both by the part program and also via synchronous actions.

18700	MM_SIZEOF_LINKVAR_DATA			N02	B3	
-	Size of NCU-link variable memory			DWORD	PowerOn	
LINK						
-	-	0	-	-	7/2	M

**Description:** Number of bytes of the NCK link memory for the variables \$A\_DLx.

18710	MM_NUM_AN_TIMER			N02	-	
-	Number of global time variable for synchronized actions			DWORD	PowerOn	
-						
-	-	0	0	10000	7/2	M

**Description:** Number of global time variables for motion-synchronous actions (DRAM)

18720	MM_SERVO_FIFO_SIZE			EXP, N01	B3	
-	Setpoint value for buffer size between IPO and position control			DWORD	PowerOn	
-						
-	-	2	2	35	3/2	M

**Description:** The machine data determines the size of the setpoint value buffer between interpolator and position control, and has a direct effect on the dynamic user memory requirement.

That is normally 2. If several NCUs are connected via NCU link for e.g. rotary indexing machines, the value should be set to 3 on all NCUs. This will balance the transmission rates of the setpoint values via the link.

In a master value application (e.g. line shaft), the value should be set to 4, but only on the NCU that generates the master value. For all the other NCUs, the preset value should be maintained at 2.

Note:

In control loops that are connected via interpolator, every increase of the value generates a further dead-time.

When the IPO cycles of the NCUs within an NCU group are set to different values, the link communication will only run in the slowest IPO cycle. The MD must be increased in the ratio of the NCU IPO cycle to the slowest IPO cycle in the NCU group, in order to achieve a synchronized output of the setpoint values on the drive interface. The formula for this is as follows:

$$MM\_SERVO\_FIFO\_SIZE = 2 * IPO \text{ cycle ratio} + 1$$

Example:

In an IPO cycle ratio of 4:1, the value on the fast NCU should be set to 9 instead of 3. On the slow NCU, the value must be set to 3.

18730	MM_MAXNUM_ALARM_ACTIONS	N02	-
-	Length of the alarm action list	DWORD	PowerOn
-			
-	-	500	100
-	-	2000	1/1
-	-		M

**Description:** Maximum number of alarm actions that are retained. This is the length of the alarm action list.

18780	MM_NCU_LINK_MASK	N01	B3
-	Activation of NCU-link communication	DWORD	PowerOn
-			
-	-	0	0
-	-	7	3/2
-	-		M

**Description:** Activating NCU link communication  
 Bit-coded activation data. That is the NCU link communication can be activated in various forms.  
 Bit-coded activation data:  
 Bit 0 = 0x1: Link communication is to be activated.  
 Bit 1 = 0x2: reserved  
 Bit 2 = 0x4: Extended search for link SDBs  
 SDBs are additionally searched for in the following directories:  
 -/user/sinumerik/sdb/...  
 -/oem/sinumerik/sdb/...  
 -/addon/sinumerik/sdb/...  
 As usual it is first searched in the user, oem, addon directories and then in the siemens directory  
 (See description FAST\_IPO\_LINK)  
 Irrelevant for:  
 Systems without link modules  
 Related to:  
 MD30560 \$MA\_IS\_LOCAL\_LINK\_AXIS,  
 MD12510 \$MN\_NCU\_LINKNO,  
 MD12520 \$MN\_LINK\_TERMINATION,  
 MD18782 \$MN\_MM\_LINK\_NUM\_OF\_MODULES,  
 MD12540 \$MN\_LINK\_BAUDRATE\_SWITCH,  
 MD12550 \$MN\_LINK\_RETRY\_CTR

18781	NCU_LINK_CONNECTIONS	N01	B3
-	Number of internal link connections	DWORD	PowerOn
LINK			
-	-	0	0
-	-	32	3/1
-	-		M

**Description:** Value = 0  
 The software calculates the internal link connections itself.  
 Value > 0  
 Number of internal link connections from each NCU to each other NCU.  
 These link connections do not accommodate the non-cyclic messages.  
 Each of these connections can transfer 240 bytes of raw data.  
 Non-cyclic messages occur with alarms, container switches and link variablen.

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18782	MM_LINK_NUM_OF_MODULES			N01, N02	B3	
-	Number of NCU-link modules			DWORD	PowerOn	
-		2	2	16	3/2	M

**Description:** LINK\_NUM\_OF\_MODULES defines how many link modules can participate in the link communication.

18788	MM_CC_STATION_CHAN_MASK			N01	-	
-	Channel bit mask for allocating CC stations			DWORD	PowerOn	
-		3	1, 0, 0	-	1/1	M

**Description:** Machine data for channel-specific creation of special additional software stations for compile cycles.  
 Enter a bit mask with the bits set for the channels, in which a compile cycle shall use the relevant station.  
 Meaning of the individual array elements:  
 \$MN\_MM\_CC\_STATION\_CHAN\_MASK[0]:  
 Creates a CC station at the end of the geometry preparation and prior to velocity planning in the preparation task. A compile cycle application can buffer the blocks there and manipulate their contents.  
 \$MN\_MM\_CC\_STATION\_CHAN\_MASK[1]:  
 Creates another CC-Station that is called directly after the first CC station (see above) and permits the internal block contents independently of this manipulation.  
 \$MN\_MM\_CC\_STATION\_CHAN\_MASK[2]:  
 Creates an additional CC station in the preparation task that is called directly prior to tool radius offset and allows manipulation of the internal block contents.

18790	MM_MAX_TRACE_LINK_POINTS			EXP, N02, N06	B3	
-	Trace data buffer size for NCU-Link			DWORD	PowerOn	
NBUP		8	0	20000	2/2	M

**Description:** MM\_MAX\_TRACE\_LINK\_DATAPOINTS defines the size of an internal data buffer which contains the trace recordings for the NCU-link functionality.  
 The MD is only evaluated if bit 0 is set in MD18792  
 \$MN\_MM\_TRACE\_LINK\_DATA\_FUNCTION.  
 Related to:  
 MD22708 \$MC\_TRACE\_SCOPE\_MASK,  
 MD22714 \$MC\_MM\_TRACE\_DATA\_FUNCTION,  
 MD28180 \$MC\_MM\_MAX\_TRACE\_DATAPOINTS  
 MD22700 \$MC\_TRACE\_STARTTRACE\_EVENT,  
 MD22702 \$MC\_TRACE\_STARTTRACE\_STEP,  
 MD22704 \$MC\_TRACE\_STOPTRACE\_EVENT,  
 MD22706 \$MC\_TRACE\_STOPTRACE\_STEP,  
 MD22710 \$MC\_TRACE\_VARIABLE\_NAME,  
 MD22712 \$MC\_TRACE\_VARIABLE\_INDEX,  
 MD18792 \$MN\_MM\_TRACE\_LINK\_DATA\_FUNCTION

18792	MM_TRACE_LINK_DATA_FUNCTION	EXP, N02, N06	B3
-	Specifies the contents of the NCU-link files	DWORD	PowerOn
NBUP			
-	-	0	0
		0x7FFFFFFF	2/2
			M

**Description:** The NCK link sends and receives 32 buffers with a length of 240 bytes in each interpolation cycle.

These buffers are saved in a FIFO (first in-first out) memory of length MD18790 \$MN\_MM\_MAX\_TRACE\_LINK\_POINTS and written to a file (ncsctr01.mpf for the 1st channel) if a "trigger event" occurs (e.g. Cancel Alarm button, see MD22704 \$MC\_TRACE\_STOPTRACE\_EVENT and MD22700 \$MC\_TRACE\_STARTTRACE\_EVENT).

The machine data should be interpreted as a bit mask and has the following meaning:

BIT0 = 1

Enables the NCU link trace file.

The others are only evaluated if this bit is set!

MD18790 \$MN\_MM\_MAX\_TRACE\_LINK\_POINTS is only evaluated with this bit.

BIT1 = 1

The stored buffer content is analyzed according to its meaning and written to the file in plain text. This means setpoint transfer can be detected, for example, from the text items "desVal", actual value transfer from the identifiers "actVal" etc.

BIT1 = 0

The buffer content is displayed in HEX and is not analyzed.

BIT2 = 1

Only buffers that contain a sporadically occurring communication message (dynamic message) between the NCUs are recorded.

These include, for example, the following events:

- Set machine data
- Set link variables
- Alarms spanning NCUs
- Axis container rotation

BIT3 = 1

Every addition and deletion of a CLEARHIMSELF alarm transferred via LINK triggers the following action:

The internal receive tree is recorded before and after the action and the most recent values can be

found again in trace.

NOTICE: Very very time-consuming; please only use in an emergency.

18794	MM_TRACE_VDI_SIGNAL	EXP, N02, N06	-
-	Trace specification of VDI signals	DWORD	PowerOn
NBUP			
-	-	0	0
		0x7FFFFFFF	2/2
			M

**Description:** The NCK sends and receives PLC VDI signals. The Trace function stores the signals which have changed in each interpolation cycle in an FIFO memory (first in-first out) having a size of MM\_MAX\_TRACE\_POINTS.

The FIFO is written to a file (for the 1st channel: ncsctr01.mpf) when a "trigger event" occurs (e.g. Cancel Alarm key, see MD22704 \$MC\_TRACE\_STOPTRACE\_EVENT and MD22700 \$MC\_TRACE\_STARTTRACE\_EVENT).

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The machine data should be interpreted as bit mask. The corresponding VDI signals are recorded depending on which bit is set.

Bits 1.. 6 describe which axial VDI input signals are recorded in the trace (see .. TRACE\_DATA\_FUNCTION).

18800	MM_EXTERN_LANGUAGE			N01, N12	K1	
-	Activation of external NC languages			DWORD	PowerOn	
-						
-	-	0x0000	0x0000	0x0001	7/2	M

**Description:** The corresponding NC language must be activated to execute part programs of other control manufacturers. Only one external NC language can be selected. The range of instructions which is made available in each case is to be taken from the current documentation.

Bit 0 (LSB):

Execution of part programs ISO\_2 or ISO\_3.

See MD10880 \$MN\_MM\_EXTERN\_CNC\_SYSTEM for coding.

18840	MM_EPSPARAM_DIMENSION			EXP, N01, N02	ePS Dokumentation	
-	Dimension of ePS-specific variables \$EPS_*			DWORD	PowerOn	
-						
-	-	10	0	100	0/0	M

**Description:** Dimension of ePS-specific parameters \$EPS\_R[i], \$EPS\_I[i], \$EPS\_B[i], \$EPS\_A[i], \$EPS\_C[i], #EPS\_S[i]; i = 0-Value of the machine data - 1. MD data value zero indicates that the functionality is not available.

18860	MM_MAINTENANCE_MON			EXP, N01	W6	
-	Activation of maintenance data recording			BOOLEAN	PowerOn	
-						
-	-	FALSE	-	-	7/2	M

**Description:** Maintenance data is recorded when this MD has the value TRUE.  
The axial MD33060 \$MA\_MAINTENANCE\_DATA sets which data are to be recorded. Details are to be found in the service documentation.

18864	MM_NUM_TRAFO_DATA_SETS			N02, N09	W1	
-	Maximum number of definable transformation data blocks.			DWORD	PowerOn	
-						
-	-	0	0	100	7/2	M

**Description:** Maximum number of definable transformation data blocks. The data for defining a transformation data block are set by the system variables \$NT\_XXX.  
The data are stored in the buffered memory.

18866	MM_NUM_KIN_TRAFOS			N02, N09	W1	
-	Maximum number of transformation objects in NCK			DWORD	PowerOn	
-						
-	-	0	0	200	7/2	M

**Description:** Maximum number of transformation objects in NCK.  
This machine data indicates the maximum number of transformation objects in the NCK.  
If this machine data is 0, the maximum number of kinematic transformations per channel which can be created using machine data (\$MC\_TRAFO\_TYPE\_N) remains at 20 (conventional parameter setting for kinematic transformations).

If the machine data is not equal to zero, it indicates the possible total number of all transformations in the NCK. This can be transformations parameterized conventionally as well as (alternatively or in addition) transformations parameterized using kinematic chains.

18880	MM_MAXNUM_KIN_CHAIN_ELEM	EXP, N01	-
-	maximum number of elements in kinematic chains	DWORD	PowerOn
-			
-	-	0	0
-		1000	7/2
-			M

**Description:** Maximum number of links in kinematic chains. If this MD has the value 0 (default value) then no kinematic chains at all are possible.

18890	MM_MAXNUM_3D_PROT_AREAS	EXP, N01	-
-	Maximum number of 3D protection areas	DWORD	PowerOn
-			
-	-	0	0
-		200	7/2
-			M

**Description:** Maximum number of elements in protection zones. If this MD has the value 0 (default value) then no protection zones are possible.

18891	MM_MAXNUM_3D_WPFX_PROT_ELEM	EXP, N01	-
-	Maximum number of protection area elements for workpiece and fixture	DWORD	PowerOn
-			
-	-	0	0
-		500	7/2
-			M

**Description:** Maximum number of protection area elements for the automatic generation of protection areas with the language commands WORKPIECE and FIXTURE.

18892	MM_MAXNUM_3D_PROT_AREA_ELEM	EXP, N01	-
-	Max. number of protection zone elements	DWORD	PowerOn
-			
-	-	0	0
-		1000	7/2
-			M

**Description:** Maximum number of protection zone elements. If this MD is 0 (default value), no protection zones are possible.

18893	MM_MAXNUM_3D_T_PROT_ELEM	EXP, N01	-
-	Max. number of tool protection area elements	DWORD	PowerOn
-			
-	-	0	0
-		500	7/2
-			M

**Description:** Maximum number of protection area elements for automatic creation of tool protection areas.

18894	MM_MAXNUM_3D_FACETS_INTERN	EXP, N01	-
-	Max. number of protection zone facets for variable protection zones	DWORD	PowerOn
-			
-	-	0	0
-		10000	7/2
-			M

**Description:** Maximum number of facets permitted for all internally created protection zones.

Only applies if MAXNUM\_3D\_PROT\_AREAS is greater than zero and bit 0 in PROT\_AREA\_TOOL\_MASK is set.

Typical values would then be 1000 for milling machines with a modeled tool, and 5000 for lathes with various tool types in a revolver.

18895	MM_MAXNUM_3D_FACETS	EXP, N01	-			
-	Max. number of protection area facets	DWORD	PowerOn			
-						
-	-	0	0	10000	7/2	M

**Description:** Maximum number of facets allowed for all protection areas.  
Only applies when the MAXNUM\_3D\_PROT\_AREAS is greater than zero.

18896	MM_MAXNUM_3D_COLLISION	EXP, N01	-			
-	Max. number of the memory location for collision check	DWORD	PowerOn			
-						
-	-	0	0	MAX_SIZE_3D_S_COLL_TREE_MD	7/2	M

**Description:** Maximum size of a temporary memory area (in KB), which is required for the collision check of two protection zones.  
If the contents of this machine data is 0, the required memory space is determined automatically from machine data MD18892 \$MN\_MM\_MAXNUM\_3D\_PROT\_AREA\_ELEM, MD18890 \$MN\_MM\_MAXNUM\_3D\_PROT\_AREAS and MD18895 \$MN\_MM\_MAXNUM\_3D\_FACETS.  
If the determined memory space is insufficient, it can be explicitly determined using this machine data.

18897	MM_MAXNUM_3D_INTERFACE_IN	EXP, N01	-			
-	Max. no. of interf. bits for pre-activation of protection zones	DWORD	PowerOn			
-						
-	-	16	0	64	7/2	M

**Description:** Defines how many input bits are available on the VDI interface for pre-activation of 3D protection zones.  
It will influence the size of the memory space required for each NC block.  
If this machine data has value n, a memory size of approximately  $n * (n + 1) / 16$  bytes will be required per block.  
This machine data will be evaluated and will cause reservation of memory space, only if MD18890 \$MN\_MM\_MAXNUM\_3D\_PROT\_AREAS is unequal to 0.

18899	PROT_AREA_TOOL_MASK	EXP	-			
-	Controls the creation of automatically created tool protection areas	DWORD	NEW CONF			
-						
-	-	0	-	-	7/3	M

**Description:** Controls the way tool protection areas are automatically created with collision detection active.  
If bit 0 = 1, then in MD 18894 \$MN\_MM\_MAXNUM\_3D\_FACETS\_INTERN memory space must be reserved.  
This machine data is bit-coded.  
Bit 0 (0x1) If no other data are available, create the tool protection area from the tool data (tool length and radius).



18900	FPU_ERROR_MODE	EXP	-
-	System reaction to FPU calculation error	DWORD	PowerOn
NBUP, NDLD			
-	-	0x1	-
			0/0
			M

**Description:** System response to floating point unit arithmetic errors

Bit 0 = 0: (LSB)  
The response to an FPU arithmetic error takes place during a station change by the station controller polling the FPU status word. (For CPUs without exception handling)

Bit 0 = 1:  
There is an immediate branch into an exception when an FPU arithmetic error occurs:  
The address at which the arithmetic error occurred can be exactly localized in the alarm output

18910	FPU_CTRLWORD_INIT	EXP	-
-	Basic initialization of FPU control word	DWORD	PowerOn
NBUP, NDLD			
-	-	0x37F	-
			0/0
			M

**Description:** The basic initialization of the FPU control word enables the FPU mode of operation (e.g. rounding mode) to be changed.  
Significance of the bit: see manual of the FPU used.

18920	FPU_EXCEPTION_MASK	EXP	-
-	Exception mask for FPU calculation errors	DWORD	PowerOn
NBUP, NDLD			
-	-	0xD	-
			0/0
			M

**Description:** The exception mask for FPU calculation errors enables selection of the FPU error for which an exception was issued.  
Significance of the bits for Intel 486:

Bit 0 (LSB):  
invalid operation

Bit 1:  
denormalized operand: | operand | < as the smallest 2nd power

Bit 2:  
zero divide

Bit 3:  
overflow: result is larger than the largest displayable number

Bit 4:  
underflow: result is smaller than the smallest displayable number

Bit 5:  
precision: result cannot be displayed exactly (e.g. 1/3)

Significance of the bits for Intel 960:

Bit 12:  
integer overflow

Bit 24:  
floating overflow

Bit 25:  
floating underflow

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Bit 26:  
invalid operation  
Bit 27:  
zero divide  
Bit 28:  
floating inexact (precision): result cannot be displayed exactly  
Bit 29:  
denormalized operand

18930	COREFILE_NAME			EXP	-	
-	Path for core file creation			STRING	PowerOn	
-						
-	-		-	-	7/1	M

**Description:** File name with path name under which a core file is created in the case of a control crash.  
The core file is used for problem analysis by NCK development.  
A core file will be created, if a valid file name is entered in this MD.

18950	COLLISION_CONFIG			EXP, N01	-	
-	Configuration of collision avoidance.			DOUBLE	Reset	
-						
-	16	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	0/0	M

**Description:** Configuration date of collision avoidance.

18960	POS_DYN_MODE			N01	K1	
-	Type of positioning axis dynamic response			BYTE	Reset	
-						
-	-	0	0	1	7/2	M

**Description:** The machine data determines the accelerations and jerks which are applied in the case of positioning axis motion.  
Value 0:  
The acceleration is taken from the first field entry in \$MA\_MAX\_AX\_ACCEL (value for DYNNORM).  
With G75 and active jerk limitation (SOFT), the jerk is taken from the first field entry in \$MA\_MAX\_AX\_JERK (value for DYNNORM); without jerk limitation (BRISK) it is infinite.  
The following applies for all other positioning axis movements:  
If \$MA\_JOG\_AND\_POS\_JERK\_ENABLE is true, the jerk is taken from \$MA\_JOG\_AND\_POS\_MAX\_JERK; otherwise it is infinite (BRISK behavior).  
Value 1:  
The acceleration is taken from the second field entry in \$MA\_MAX\_AX\_ACCEL (value for DYNPOS).  
The jerk is taken from the second field entry in \$MA\_MAX\_AX\_JERK (value for DYNPOS).  
For BRISK behavior, enter very high values here.

19010	SYSTEM_INFO			N01	-	
-	System information			BYTE	PowerOn	
-						
-	4	0x6, 0x4	-	-	ReadOnly	M

**Description:**

System information  
Current software identifiers  
[0]:Class ID  
[1]:Subsystem ID  
Class ID:  
0 Reserved (was Powerline (810D/840D))  
1 840D s1 up to SW 2.7  
2 Reserved (was 802D s1 T/M)  
3 Reserved (was 802D s1 N/G or C/U)  
4 Reserved (was 840Di s1)  
5 828D  
6 840D s1 SW 4.4 and higher  
7 808D  
15 VNCK  
Subsystem ID:  
HMI (upper half-byte)  
0 HMI-Embedded  
1 ShopMill HMI  
2 ShopTurn HMI  
10 HMI s1  
NCK (lower half-byte)  
11 4AG  
1 6A  
2 12A  
3 31A  
10 2A  
This data cannot be written.

19100	NUM_AXES_IN_SYSTEM			N01	-	
-	Additionally 1 axis/spindle			BYTE	PowerOn	
-						
840dsl-71	-	3	0	8	3/3	M
840dsl-72	-	3	0	31	3/3	M
840dsl-73	-	3	0	31	3/3	M

**Description:**

Number of available axes (IPO functionality)  
If more axes are activated by the channel-specific MD \$MC\_AXCONF\_MACHAX\_USED than are permitted in \$ON\_NUM\_AXES\_IN\_SYSTEM and/or \$ON\_NUM\_ADD\_AXES\_IN\_SYSTEM, a power-up alarm is triggered and the NC start is prevented.

19102	NUM_ADD_AXES_IN_SYSTEM			N01	-	
-	Additional 1 positioning axis/auxiliary spindle			BYTE	PowerOn	
-						
840dsl-71	-	0	0	8	3/3	M
840dsl-72	-	0	0	31	3/3	M
840dsl-73	-	0	0	31	3/3	M

**Description:** Number of available positioning/auxiliary axes  
If more axes are activated by channel-specific MD \$MC\_AXCONF\_MACHAX\_USED than permitted in \$ON\_NUM\_AXES\_IN\_SYSTEM and/or \$ON\_NUM\_ADD\_AXES\_IN\_SYSTEM, a power-up alarm is triggered and the NC start is prevented.

19110	NUM_IPO_AXES			N01	-	
-	Multiple-axis interpolation (more than 4 axes)			BYTE	PowerOn	
-						
840dsl-71	-	4	0	8	3/3	M
840dsl-72	-	4	0	31	3/3	M
840dsl-73	-	4	0	31	3/3	M

**Description:** Number of simultaneously interpolating path axes  
If more interpolating axes are programmed than are permitted in \$ON\_NUM\_IPO\_AXES, a power-up alarm is output and the corresponding block is not executed.

19120	NUM_SAFE_AXES			N01, N06	-	
-	SI axis/spindle, add. 1 axis/spindle			BYTE	PowerOn	
-						
-	-	1	0	31	3/3	M

**Description:** Number of axes in which safety functions can be activated.

19122	NUM_SPL_IO			N01, N06	-	
-	SI			BYTE	PowerOn	
-						
840dsl-71	-	0	0	2	3/3	M
840dsl-72	-	0	0	3	3/3	M
840dsl-73	-	0	0	3	3/3	M

**Description:** The number of external SPL I/Os can be selected with the value in the option data:  
= 0 : The SPL has no I/O.  
= 1 : The SPL has a maximum of 4/4 I/Os.  
= 2 : The SPL has a maximum of 64/64 I/Os.  
= 3 : The SPL has a maximum of 192/192 I/Os

19142	NUM_LEAD_LINK_AXES			N01	-	
-	Number of supported lead-link axes			BYTE	PowerOn	
-						
-	-	0	0	32	3/3	M

**Description:** Number of lead link axes supported by the software

19200	NUM_CHANNELS			N01	-	
-	Additional 1 machining channel			BYTE	PowerOn	
-						
840dsl-71	-	1	1	4	3/3	M
840dsl-72	-	1	1	10	3/3	M
840dsl-73	-	1	1	10	3/3	M

**Description:** Number of activatable channels  
 If more channels are activated by the global MD \$MN\_ASSIGN\_CHAN\_TO\_MODE\_GROUP than are permitted in \$ON\_NUM\_CHANNELS, then a power-up alarm is triggered which prevents the NC start.

19220	NUM_MODE_GROUPS			N01	-	
-	Additional 1 operation mode modul (BAG)			BYTE	PowerOn	
-						
-	-	1	1	10	3/3	M

**Description:** Number of mode groups  
 If more mode groups are activated by the global MD \$MN\_ASSIGN\_CHAN\_TO\_MODE\_GROUP than are permitted in \$ON\_MODE\_GROUPS, then a power-up alarm is triggered which prevents the NC start.

19250	USER_MEM_BUFFERED			N01, N02	-	
-	Add. 2 Mbyte CNC user memory			BYTE	PowerOn	
-						
-	-	0	0	6	3/3	M

**Description:** Option data for enabling the configuration stages of the battery-backed user memory on the NC CPU.  
 The following applies to Powerline systems:  
 Available memory = basic configuration + \$ON\_USER\_MEM\_BUFFERED \* 256KB  
 The following applies to Solutionline systems:  
 Available memory = basic configuration + \$ON\_USER\_MEM\_BUFFERED \* 2MB  
 \$ON\_USER\_MEM\_BUFFERED thus always shows the part of the memory added to the basic configuration.

19270	PLC_USER_MEM_SIZE			N01, N02, N03	-	
-	Add. 128 KB PLC user memory			BYTE	PowerOn	
-						
-	-	4	1	32	3/3	M

**Description:** Option data for enabling the configuration stages of the STEP 7 user memory on the PLC:

1	32kB128kB
2	64kB256kB
3	96kB (GA) 384kB
4	128kB512kB (GA)
.	.
.	.
32	1024kB4096kB

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19280	PLC_C_USER_MEM_SIZE	N01, N02, N03			-	
-	Additional 64 KB for PLC C programming	BYTE			PowerOn	
-						
-	-	0	0	14	3/3	M

**Description:** Option data for enabling the memory configuration stages for C programming on the PLC. (Incrementation: 64KB)  
 0 = No memory  
 1 = 64KB  
 ..  
 14 = 896KB

19300	COMP_MASK	N01			-	
-	Compensation options	BYTE			PowerOn	
-						
-	-	0	0x0	0x7F	3/3	M

**Description:** Reserved TEMP Temperature compensation axial  
 Reserved: EEC Leadscrew error compensation  
 Bit 2 CEC Sag compensation  
 Reserved QEC Quadrant error compensation with neural network  
 Reserved EGA Electronic counterweight  
 Bit 5 BiEEC Bidirectional leadscrew error compensation

19308	SINAMICS_FUNCTION_MASK	N01			-	
-	Drive options	DWORD			PowerOn	
-						
-	-	0	-	-	3/3	M

**Description:** Option data for enabling SINAMICS drive functions:  
 Bit 0 (LSB): Enable "'Advanced Position Control' (APC)" (drive parameter r108 bit 7)

19310	AXIS_FUNCTION_MASK	N01, N09			-	
-	Axial options	DWORD			PowerOn	
-						
-	-	0	0x0	0x7FFFFFFF	3/3	M

**Description:** Option data for enabling axial functions:  
 Bit 0 (LSB): Enable "Gantry axes" ( \$MA\_GANTRY\_AXIS\_TYPE )  
 Bit 1: Enable "Force Control" ( \$MA\_FOC\_ACTIVATION\_MODE )  
 Bit 2: Enable "Position switching signals" ( \$MN\_SW\_CAM\_ASSIGN\_TAB )  
 -----: Reserved "Prog. acceleration" not an option since 10/2000  
 Bit 4: Enable "Master-Slave" ( \$MA\_MS\_ASSIGN\_MASTER\_SPEED\_CMD \$MA\_MS\_ASSIGN\_MASTER\_TORQUE\_CTR)  
 Bit 5: Enable "Digital setpoint exchange"  
 The listed machine data are reset during power on and alarm 8040 is output if the corresponding bit of the option data is not set.

19320	TECHNO_FUNCTION_MASK		N01, N09	-		
-	Technological options		DWORD	PowerOn		
-						
-	-	0	0x0	0x7FFFFFFF	3/3	M

**Description:** Option data for enabling technology-related functions

-----:(LSB): Reserved "Caliper function" (\$MC\_MULTFEED\_ASSIGN\_FASTIN) not an option since 10/2000

Bit 1: Enable "Adaptive Control (evaluation of internal drive variables)"

Bit 2: Enable "SINUMERIK HMI OA copy licence WinCC flexible CE" (OP)

Bit 3: Enable "Oscillation functions" (\$SA\_OSCILL\_IS\_ACTIVE)

Bit 4: Enable "Tool management" (\$MC\_TOOL\_MANAGEMENT\_MASK)

Bit 5: Enable "Nibbling/punching" (\$MC\_PUNCHNIB\_ACTIVATION)

Bit 6: Enable "Contour tunnel monitoring" (\$MC\_CONTOUR\_TUNNEL\_TOL)

-----: Reserved "F word interpolation" (FLIN/FCUB/FPO) not an option since 10/2000

-----: Reserved "Continuous Dressing" (FTOCON/FTOCOF) not an option since 10/2000

Bit 9: Enable "Tangential control" (TANON/TANGOF)

Bit 10: Enable "Synchronous spindle/Multi-edge turning" (COUPON/COUPOF)

Bit 11: Enable "Path velocity-dependent analog value output (\$AC\_VACTB/\$AC\_VACTW)"

-----: Reserved "Position offset as output of a synchronized action (2D)" (\$AA\_OFF), not an option since 10/2000

-----: Reserved "Free contour input with stock removal against the contour" (ShopMill)

Bit 14: Enable "Measuring level 2" (MEASA, MEAWA, 1)

-----: Enable "Tool measuring (ShopMill)" not an option since 07/2004

Bit 16: Enable "Contour pocket cycle with automatic residual material removal (ShopMill)"

Bit 17: Enable "Simultaneous recording (Realtime simulation of the current machining) (ShopMill/ShopTurn) or "Simulation milling (HMI Embedded)"

Bit 18: Enable "Extended stop and retract" (\$MA\_ESR\_REACTION)

Bit 19: Enable "Electronic gear (EGDEF)"

-----: Reserved "Teleservice HT6"

Bit 21: Enable "Fast retraction from the contour (LIFTFAST)"

Bit 22: Free

Bit 23: Enable "Work plan programming with ShopMill/ShopTurn"

Bit 24: Enable "Drive-autonomous generator operation" (\$MA\_ESR\_REACTION)

Bit 25: Enable "Tool monitoring without active tool management" (\$MC\_TOOL\_MANAGEMENT\_MASK)

Bit 26: Enable "Multiple clamping (ShopMill)"

Bit 27: Enable "NCU-link with various IPO and position-control cycles (see description of FAST\_IPO\_LINK and \$MN\_MM\_NCU\_LINK\_MASK)

Bit 28: Enable "Display volume model (ShopTurn)"

Bit 29: Enable "Online override in tool direction" (\$AA\_TOFF[])

Bit 30: Enable "Milling machining package (package/only place holder for collective option)"

Bit 31: Reserved ""

19321	TECHNO_FUNCTION_MASK_1			N01, N09	-	
-	Technological options			DWORD	PowerOn	
-						
-	-	0x00003040	0x00003040	0x7FFFFFFF	3/3	M

**Description:** Option data for enabling functions relating to technologies.

Bit 0:(LSB):Enable "Measuring cycles (MEACALC)"

Bit 1:Enable "Contour handwheel"

Bit 2:Enable "Generic coupling 'CP-BASIC'"

Bit 3:Enable "Generic coupling 'CP-COMFORT'"

Bit 4:Enable "Generic coupling 'CP-EXPERT'"

Bit 5:Enable "Generic coupling 'CP-STATIC'"

Bit 6:Enable "Replacement tools for TM"

Bit 7:Enable "TM with multiple magazines"

Bit 8: Enable "Monitoring for max. tool speed / acceleration"

Bit 9: Enable "Advanced Surface"

Bit 10: Enable "Machining package milling 3 axes (pkg/only placeholder for group option)"

Bit 11: Enable "Machining package milling 5 axes (pkg/only placeholder for group option)"

Bit 12: Enable "Siemens Cycles Base Technology"

Bit 13: Enable "Siemens Cycles Advanced Technology"

Bit 31:Reserved ""

19330	IPO_FUNCTION_MASK			N01, N09	-	
-	Interpolation			DWORD	PowerOn	
-						
-	-	0	0x0	0x7FFFFFFF	1/1	M

**Description:** Option data for enabling interpolation-related functions

-----:(LSB):Reserved "REPOS per program (REPOSx without REPOSA)" not an option since 10/2000

Bit 1: Enable "Spline interpolation (xSPLINE)"

Bit 2:Enable "Compressor 5-axis machining (COMPON/COMP CAD/COMP CURV) (solution line: incl. xSPLINE; as from NCK75 only xSPLINE because COMPx is GA)"

Bit 3: Enable "Polynomial interpolation (POLY)"

Bit 4: Enable "3D tool offset (CUT3Dx)"

Bit 5: Enable "Master value coupling and curve table interpolation (LEADON, CTAB)"

-----: Reserved "Command axes and spindles"

Bit 7: Enable "Involute interpolation"

Bit 8: Enable "Compressor 3-axis machining (COMPON/COMP CAD/COMP CURV) (solution line: incl. xSPLINE); as from NCK75 only xSPLINE because COMPx is GA)"

Bit 31: Reserved ""



19334	SYSTEM_FUNCTION_MASK			N01, N09	-	
-	System options			DWORD	PowerOn	
-						
-	-	0	0x0	0x7FFFFFFF	3/3	M

**Description:**

```

-----:(LSB): Reserved "FlashFileSystem (FFS)" is not an option but standard.
-----:      Reserved "Execute from external (was 802D system)"
-----:      Reserved "Color display (was 802D system)"
-----:      Reserved "was 802D system"
-----:      Reserved "Cycles in DRAM"
-----:      Reserved "Modem (was 802D system)"
Bit 6:      Enable "Machine maintenance data (MachineMaintenance)"
-----:      Reserved "Direct keys/handwheel connection on MCP with PROFIBUS
DP" (only PLC)
Bit 8:      Enable "Cycle protection"
...
Bit 28:     Reserved
Bit 29:     Reserved
Bit 30:     Reserved
Bit 31:     Reserved

```

19340	PROG_MASK			N01	-	
-	Program options			BYTE	PowerOn	
-						
-	-	0	0x0	0x7F	3/3	M

**Description:**

```

Option data for enabling functions relating to program execution
Bit 0 (LSB):Reserved, was "Program preprocessing"
Bit 1:Enable "Technology cycles" and "Synchronized actions stage 2"
Bit 2:Enable "Cross-mode actions (ASUB and SYNACT)"

```

19400	FFW_MODE_MASK			N01, N09	-	
-	Feedforward control			BYTE	PowerOn	
-						
-	-	0	0x0	0x7F	3/3	M

**Description:** Reserved

19410	TRAFO_TYPE_MASK			N01, N02, N09	-	
-	Transformation options			DWORD	PowerOn	
-						
-	-	0	0x0	0x7FFFFFF7F	3/3	M

**Description:**

```

Enables the transformations
An alarm is output if an attempt is made to activate a transformation
whose associated option bit is not set.
Unbuffered memory is required.
Setting one of the option bits increases the memory requirement.
Meaning of the set bits in $ON_TRAFO_TYPE_MASK:
Bit 0 (LBS): TRAF05      (5-axis transformation) permitted
Bit 1      : TRANSMIT/TRACYL (Transmit/cylinder surface curves transforma-
tion) permitted

```

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Bit 2 : Reserved  
 Bit 3 : TRAANG (Inclined axis transformation) permitted  
 Bit 4 : TRAOEM (OEM transformations) permitted  
 Bit 5 : TRACON (Concatenated transformations) permitted  
 Bit 6 : TRAF07 (7-axis transformation) permitted  
 Bit 7 : TRANSMIT/TRACYL (Transmit/transformation of cylinder peripheral curves, without real Y axis) permitted  
 As at 10/11/94: Centerless grinding transformation is not an option

19610	TECHNO_EXTENSION_MASK			N01	-	
-	Technological extensions			DWORD	PowerOn	
-						
-	9	0, 0, 0, 0, 0, 0, 0, 0...	0x0	0x7FFFFFFF	3/3	M

**Description:** Option data for activating technology functions that have been brought in for the first time as reloadable compile cycles.  
 \$ON\_TECHNO\_EXTENTION\_MASK[0]  
 Bit 0: = 0 Only those ELF files can be loaded which are licensed by a bit in ON\_TECHNO\_EXTENTION\_MASK[1].  
           1 All ELF files can be loaded  
 Bit 16-32: reserved for use by OEM customers  
 \$ON\_TECHNO\_EXTENTION\_MASK[1]  
           (ELF files marketed by Siemens)

19700	ELEC_TRANSFER			N01	-	
-	Electronic transfer			BOOLEAN	PowerOn	
-						
-	-	FALSE	-	-	3/3	M

**Description:** Option data for enabling "electronic transfer" functionality  
 The 'individual options' required for this functionality are set,  
   + One additional positioning axis  
   + Gantry  
   + Synchronized actions level 2  
   + Position switching signals/cams  
   + Polynomial interpolation  
   + Master value coupling  
   + Cross-mode actions (ASUB and SYNACT)  
   + PROFIBUS  
 and the function normally present as a basic function  
   - Spindle (assignments are not possible in \$MA\_SPIND\_ASSIGN\_TO\_MACHAX)  
   - Tool offsets (G40/G41/G42 are not possible)  
 is disabled.

19701	ELEC_TRANSFER_CP			N01	-	
-	Electronic transfer (CP)			BOOLEAN	PowerOn	
-						
-	-	FALSE	-	-	3/3	M

**Description:** Option data for enabling "electronic transfer with CP" functionality  
 The 'individual options' required for this functionality are set,  
   + One additional positioning axis

+ Gantry  
+ Synchronized actions level 2  
+ Position switching signals/cams  
+ Polynomial interpolation  
+ Generic coupling CP-Comfort  
+ Cross-mode actions (ASUB and SYNACT)  
+ PROFIBUS  
and the function normally present as a basic function  
- Spindle (assignments are not possible in \$MA\_SPIND\_ASSIGN\_TO\_MACHAX)  
- Tool offsets (G40/G41/G42 are not possible)  
is disabled.

19709	PLASTIC			N01	-	
-	Plastic package IME			BOOLEAN	PowerOn	
-						
-	-	FALSE	-	-	3/3	M

**Description:** Option data for enabling the "SINUMERIK plastic package" functionality  
The 'individual options' required for this functionality are set:  
+ 3 additional axes  
+ Travel to fixed stop  
+ Gantry  
+ Synchronized actions level2  
+ Master-slave for drives  
+ Position switching signals/cams  
+ Polynomial interpolation  
+ Handling transformation package  
and the functions normally present as basic functions  
- Spindle (assignments are not possible in \$MA\_SPIND\_ASSIGN\_TO\_MACHAX)  
- Tool offsets (G40/G41/G42 are not possible)  
are disabled.

19710	HANDLING			N01	-	
-	Handling package			BOOLEAN	PowerOn	
-						
-	-	FALSE	-	-	3/3	M

**Description:** Option data for enabling "handling" functionality  
The 'individual options' required for this functionality are set,  
+ 3 additional positioning axis  
+ 3 additional channels  
+ Synchronized actions level 2  
+ Handling transformation package  
+ Cross-mode actions (ASUB and SYNACT)  
and the function normally present as a basic function  
- Spindle (assignments are not possible in \$MA\_SPIND\_ASSIGN\_TO\_MACHAX)  
- Tool offsets (G40/G41/G42 are not possible)  
is disabled.

19730	HMI_FUNCTION_MASK		N01, N09	-		
-	Operating options		DWORD	PowerOn		
-						
-	2	0x804, 0x0	0x804, 0x0	0x7FFFFFFF, 0x7FFFFFFF	3/3	M

**Description:**

Option data for enabling HMI functions:

Bit 0 (LSB): Enable "Additional languages" MD19730[0].0

-----: Reserved "External HMI"

MD19730[0].1

Bit 2: Enable "Network drive management" MD19730[0].2

Bit 3: Enable "Multi-channel step sequence programming" MD19730[0].3

Bit 4: Enable "Manual machine" MD19730[0].4

Bit 5: Enable "Add. 256 MB HMI user memory on NCU CF card" MD19730[0].5

Bit 6: Enable "Simulation milling (2D dynamic, 3D static)"

MD19730[0].6

-----: Reserved "Measuring cycles" MD19730[0].7

Bit 8: Enable "SINUMERIK HMI copy license OA" MD19730[0].8

Bit 9: Reserved "was Ethernet 802Dsl pro" MD19730[0].9

Bit 10: Enable "ShopTurn/Mill HMI for 840Di sl incl. HMI Advanced"

MD19730[0].10

Bit 11: Enable "Advanced operator functions" MD19730[0].11

Bit 12: Enable "ShopMill/ShopTurn StepGuide" MD19730[0].12

Bit 13: Enable "Measure kinematics" MD19730[0].13

Bit 14: Enable "Trace (real-time simulation of curr. machining) MigA; for ShopMill" MD19730[0].14

Bit 15: Enable "Trace (real-time simulation of curr. machining) MigA; for ShopTurn" MD19730[0].15

Bit 16: Enable "3D simulation 1 (finished part)" MD19730[0].16

Bit 17: Enable "3D simulation 2 (finished part and working area)"

MD19730[0].17

Bit 18: Enable "Manual machine plus" MD19730[0].18

Bit 19: Enable "SINUMERIK HMI sl copy license OA programming" MD19730[0].19

-----: Reserved AP61 "SINUMERIK HMI sl copy license OA project"

MD19730[0].20

-----: Reserved AP62 "SINUMERIK HMI sl copy license OA upgrade programming" MD19730[0].21

-----: Reserved AP63 "SINUMERIK HMI sl copy license OA upgrade configuration" MD19730[0].22

Bit 23: Enable "SINUMERIK HMI sl Runtime OA Easy Screen" MD19730[0].23

Bit 24: Enable "Operation without SINUMERIK OP" MD19730[0].24

-----: Reserved "Ladder Editor for SoftPLC" for Tiger GA MD19730[0].25

Bit 26: Enable "CCG Compiler (cam loop)" MD19730[0].26

Bit 27: Enable "CCG-SINUMERIK Operate Runtime OA Solution Partner" OD19730 \$MC\_HMI\_FUNCTION\_MASK[0].27

Bit 28: Enable "SINUMERIK HMI sl Runtime OA .net"

Bit 29: Enable "Access MyMachine /OPC UA" OD19730 \$MC\_HMI\_FUNCTION\_MASK[0].29

Bit 30: Enable "SINUMERIK Operate /NCU" OD19730 \$MC\_HMI\_FUNCTION\_MASK[0].30 ADD ON

Bit 0: Enable "MC information system RCS host" MD19730[1].0

Bit 1: Enable "MC information system RCS @event" MD19730[1].1  
 Bit 2: Enable "MC information system TPM machine" MD19730[1].2  
 Bit 3: Enable "MC information system TDI IFC (interface client)" MD19730[1].3  
 Bit 4: Enable "MC information system TDI overview" MD19730[1].4  
 Bit 5: Enable "MC information system TDI tool hanling" MD19730[1].5  
 Bit 6: Enable "MC information system TDI PLANNING"MD19730[1].6  
 Bit 7: Enable "MC information system TDI machine" MD19730[1].7  
 Bit 8: Enable "MC information system TDI tool plan generation"MD19730[1].8  
 Bit 9: Enable "MC information system DNC machine" MD19730[1].9  
 Bit 10: Enable "MC information system DNC IFC (interface client)" MD19730[1].10  
 Bit 11: Enable "MC information system MDI machine" MD19730[1].11  
 Bit 12: Enable "MC information system MDI IFC (interface client)" MD19730[1].12  
 Bit 13: Enable "MC information system PMT IFC (interface client)" MD19730[1].13  
 Bit 14: Enable "MC information system PDA IFC (interface client)" MD19730[1].14  
 Bit 15: Enable "MC information system TPM IFC (interface client)" MD19730[1].15  
 Bit 16: Enable "TRANSLINE 2000 HMI PRO s1" MD19730[1].16  
 Bit 17: Enable "MC information system ADDM agent" MD19730[1].17  
 Bit 18: Enable "MC information system RPC SINUMERIK"MD19730[1].18  
 Bit 19: Enable "MC information system TDI statistic MD19730[1].19  
 Bit 20: Enable "MC information system TDI ident connection" MD19730[1].20  
 Bit 21: Enable "Electronic key system (EKS)" MD19730[1].21  
 -----: Reserved MD19730[1].22  
 Bit 23: Enable "Integrated spindle monitor (S-Monitor)" MD19730[1].23

19830	COLLISION_MASK			N01	-	
-	Functional scope of collision avoidance			DWORD	PowerOn	
-						
-	-	0x0	0x0	0x5	3/3	M

**Description:** Functional scope of collision avoidance  
 Bit 0 (LSB): collision avoidance (machine, tool)  
 Bit 1: Reserved  
 Bit 2: Expansion, collision avoidance (simultaneous recording)

## 1.3.2 Channel-specific machine data

Number	Identifier	Display filters	Reference			
Unit	Name	Data type	Active			
Attributes						
System	Dimension	Default value (LIN/ROT)	Minimum value (LIN/ROT)	Maximum value (LIN/ROT)	Protection	Class

**Description:** Description

20000	CHAN_NAME		C01, C10	B3,K1		
-	Channel name		STRING	PowerOn		
-						
-	-	CHAN1, CHAN2, CHAN3, CHAN4...	-	-	7/2	M

**Description:** The channel name can be defined in this MD. The channel name is only used for the display on the HMI.

20050	AXCONF_GEOAX_ASSIGN_TAB		C01, C10	TE7,TE8,M1,R2,K1,K2		
-	Assignment of geometry axis to channel axis		BYTE	PowerOn		
-						
-	3	1, 2, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/2	M

**Description:** This MD is used to specify which channel axis the geometry axis is assigned to. Each geometry axis must be assigned to a specific channel. If a geometry axis is not assigned to a channel axis, then this geometry axis is not available, and cannot be programmed (with the name defined under MD20060 \$MC\_AXCONF\_GEOAX\_NAME\_TAB).

For example: Turning machine without transformation:

MD20050 \$MC\_AXCONF\_GEOAX\_ASSIGN\_TAB[ 0 ] = 1 ; 1st geometry axis = 1st channel axis

MD20050 \$MC\_AXCONF\_GEOAX\_ASSIGN\_TAB[ 1 ] = 0 ; 2nd geometry axis not defined

MD20050 \$MC\_AXCONF\_GEOAX\_ASSIGN\_TAB[ 2 ] = 2 ; 3rd geometry axis = 2nd channel axis

The assignment made here is valid if no transformation is active. With active transformation n, the transformation-specific assignment table MD24... \$MC\_TRAFO\_GEOAX\_ASSIGN\_TAB... becomes active.

20060	AXCONF_GEOAX_NAME_TAB		C01, C11, C10	F2,V2,M1,K2		
-	Geometry axis name in channel		STRING	PowerOn		
-						
-	3	X, Y, Z, X, Y, Z...	-	-	7/2	M

**Description:** This MD is used to enter the names of the geometry axes separately for each channel. Geometry axes can be programmed in the part program using the names specified here.

Special cases:

- The geometry axis name entered must not conflict with the designations and assignments of the machine and channel axis names.

- The machine axis names entered must not be the same as the names entered for Euler angles (MD10620 \$MN\_EULER\_ANGLE\_NAME\_TAB), names specified for directional vectors (MD10640 \$MN\_DIR\_VECTOR\_NAME\_TAB), names given to intermediate point coordinates in the case of CIP (MD10660 \$MN\_INTERMEDIATE\_POINT\_NAME\_TAB) or the names of interpolation parameters (MD10650 \$MN\_IPO\_PARAM\_NAME\_TAB).
- The geometry axis name entered must not include any of the following reserved address letters:
 

- D Tool offset (D function)	- E Reserved
- F Feedrate (F function)	- G Preparatory function
- H Auxiliary function (H function)	- L Subroutine call
- M Miscellaneous function (M function)	- N Subblock
- P Subroutine number of passes	- R Arithmetic parameters
- S Spindle speed (S function)	- T Tool (T function)
- The name must not include any keywords (e.g. DEF, SPOS etc.) or pre-defined identifiers (e.g. ASPLINE, SOFT).
- The use of an axis identifier consisting of a valid address letter (A, B, C, I, J, K, Q, U, V, W, X, Y, Z) followed by an optional numerical extension (1-99) gives slightly better block cycle times than a general identifier.
- Identical names may be given to geometry axes assigned to different channels.

Related to:

MD10000 \$MN\_AXCONF\_MACHAX\_NAME\_TAB

(machine axis name [axis no.] )

MD20080 \$MC\_AXCONF\_CHANAX\_NAME\_TAB

(channel axis name in the channel [channel axis no.] )

20070	AXCONF_MACHAX_USED	C01, C10	TE3,B3,K5,M1,K1,K2,P3pl,P3sl,S1
-	Machine axis number valid in channel	BYTE	PowerOn
-			
-	20	1, 2, 3, 0, 0	0
		31	7/2
			M

**Description:**

This MD is used to specify the machine axis which the channel axis/special axis is assigned to. Each channel axis has to be assigned to a specific channel. A machine axis that has not been assigned to a channel is inactive, i.e. the axis control is not computed, the axis is not shown on the screen, and it cannot be programmed in any channel.

From software version 5, a machine axis need not be assigned to a channel axis for reasons of uniform configuration. The MD for the machine axis is set to 0 in this case. At the same time, MD11640 \$MN\_ENABLE\_CHAN\_AX\_GAP must be set to 1 (channel axis gaps are permitted).

From software version 5, the machine data MD20070 \$MC\_AXCONF\_MACHAX\_USED does not directly refer to the machine axes created with MD10000 \$MN\_AXCONF\_MACHAX\_NAME\_TAB, but to the logical machine axis map which is defined with MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB.

MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB refers:

- directly to a local machine axis on the NCU,
- to a machine axis of another NCU in the NCU grouping or
- indirectly to an axis container with local or remote machine axes.

If the default values AX1, AX2, ..., AX31 are entered with MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB, then the NCK behaves in the same way as up to software version 4, this means that machine data MD20070 \$MC\_AXCONF\_MACHAX\_USED refers to the corresponding local machine axis.

Special cases:

- Each geometry axis must be assigned to a channel axis and a machine axis so that it can be programmed.
- If a machine axis is assigned to several channels by means of MD20070 \$MC\_AXCONF\_MACHAX\_USED, then the number of the channel from which the axis is to be programmed must be entered in MD30550 \$MA\_AXCONF\_ASSIGN\_MASTER\_CHAN.
- Up to software version 4, the list of entries must not contain any gaps (as from software version 5 - see above). In contrast, the assignment of the machine axes used may contain gaps.

For example:

Permissible:

```
AXCONF_MACHAX_USED [0] = 3; 3rd MA is the 1st axis in the channel
AXCONF_MACHAX_USED [1] = 1; 1st MA is the 2nd axis in the channel
AXCONF_MACHAX_USED [2] = 5; 5th MA is the 3rd axis in the channel
AXCONF_MACHAX_USED [3] = 0
```

Error for software version 4, permissible for version 5:

```
AXCONF_MACHAX_USED [0] = 1; 1st MA is the 1st axis in the channel
AXCONF_MACHAX_USED [1] = 2; 2nd MA is the 2nd axis in the channel
AXCONF_MACHAX_USED [2] = 0; gap in the list ...
AXCONF_MACHAX_USED [3] = 3; ... of the channel axes
```

Axis identifiers must be defined in the corresponding list places of AXCONF\_CHANAX\_NAME\_TAB for the axes activated in the channel.

Related to:

```
MD30550 $MA_AXCONF_ASSIGN_MASTER_CHAN
(Initial setting of the channel for axis change)
MD20080 $MC_AXCONF_CHANAX_NAME_TAB
(Channel axis name in the channel [channel axis number])
MD10002 $MN_AXCONF_LOGIC_MACHAX_TAB
MD11640 $MN_ENABLE_CHAN_AX_GAP
```

Reference:

Description of Functions B3.

20080	AXCONF_CHANAX_NAME_TAB			C01, C11, C10	F2,V2,M1,K2,V1	
-	Channel axis name in channel			STRING	PowerOn	
-						
-	20	"X", "Y", "Z", "A", "B", "C", "U", "V", "X11", "Y11"...	-	-	7/2	M

**Description:** This MD is used to set the name of the channel axis/special axis. The first three channel axes are normally occupied by the three assigned geometry axes (see also MD20050 \$MC\_AXCONF\_GEOAX\_ASSIGN\_TAB). The remaining channel axes are also designated as special axes. The channel axis/special axis is always displayed on the screen in the Work (workpiece coordinate system) with the name set in this MD.

Special cases:

- The specified channel axis name/special axis name must not conflict with the designation and assignment of the machine and geometry axis names.



- The specified channel axis name must not be the same as the names entered for Euler angles (Eulerwinkel (MD10620 \$MN\_EULER\_ANGLE\_NAME\_TAB), names specified for directional vectors (MD10640 \$MN\_DIR\_VECTOR\_NAME\_TAB), names given to intermediate point coordinates in the case of CIP (MD10660 \$MN\_INTERMEDIATE\_POINT\_NAME\_TAB) or the names of interpolation parameters (MD10650 \$MN\_IPO\_PARAM\_NAME\_TAB).
- The channel axis name entered must not include any of the following reserved address letters:
 

- D Tool offset (D function)	- E Reserved
- F Feedrate (F function)	- G Preparatory function
- H Auxiliary function (H function)	- L Subroutine call
- M Miscellaneous function (M function)	- N Subblock
- P Subroutine number of passes	- R Arithmetic parameters
- S Spindle speed (S function)	- T Tool (T function)
- The name must not include any keywords (e.g. DEF, SPOS etc.) or pre-defined identifiers (e.g. ASPLINE, SOFT).
- The use of an axis identifier consisting of a valid address letter (A, B, C, I, J, K, Q, U, V, W, X, Y, Z) followed by an optional numerical extension (1-99) gives slightly better block cycle times than a general identifier.
- No special names need be entered in this MD for channel axes to which geometry axes are assigned (normally the first three channel axes).  
Axis identifiers that are not allowed are rejected with an alarm during runup.

20082	AXCONF_CHANAX_DEFAULT_NAME			C01, C11, C10	-	
-	Default axis name for axis variables in the channel			STRING	PowerOn	
-						
-	-	...	-	-	7/2	M

**Description:** Variables or parameters of type Axis which have not been initialized are initialized with a default axis identifier. The identifier can be configured via the machine data MD20082 \$MC\_AXCONF\_CHANAX\_DEFAULT\_NAME. If this machine data is set with an empty string, the 1st geometry axis is used, as previously. MD20082 \$MC\_AXCONF\_CHANAX\_DEFAULT\_NAME can be set by default with all available, valid axis identifiers. The value of this machine data should generally always correspond to a value of \$MD20060 \$MC\_AXCONF\_GEOAX\_NAME\_TAB, MD20080 \$MC\_AXCONF\_CHANAX\_NAME\_TAB or MD10000 \$MN\_AXCONF\_MACHAX\_NAME\_TAB.

If an invalid axis name is entered as a value or if this name has been changed, for example, in MD20080 \$MC\_AXCONF\_CHANAX\_NAME\_TAB but not in MD20082 \$MC\_AXCONF\_CHANAX\_DEFAULT\_NAME, then this is indicated with alarm 4041 channel %1 block %2 axis identifier %3 is invalid".

Only valid axis identifiers, empty string and "NO\_AXIS" may be entered in MD20082 \$MC\_AXCONF\_CHANAX\_DEFAULT\_NAME. "NO\_AXIS" is used to indicate a non-initialized axis variable, empty string means previous behavior, i.e. each variable is initialized with the 1st geometry axis.

20090	SPIND_DEF_MASTER_SPIND			C01, C03	H2,K1,K2,P3 pl,P3 sl,S1,W1	
-	Initial setting of master spindle in channel			BYTE	PowerOn	
-						
-	-	1, 1, 1, 1, 1, 1, 1, 1...	1	20	7/2	M

**Description:** Definition of the default setting for the master spindle (in the channel). The number of the spindle is entered.

1.3 NC machine data

A number of functions are linked to the master spindle, which are not possible with any other spindle.

Note:

The language command SETMS(n) can declare the spindle number as the master spindle.

The spindle defined in this MD is declared once again as the master spindle with SETMS.

The spindle defined in this MD is also declared as the master spindle at program end and program cancelation.

20092	SPIND_ASSIGN_TAB_ENABLE			C01, C03, C10	S1	
-	Enable/disable the spindle converter.			BYTE	Reset	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	1	7/7	M

**Description:** Value 0:  
 The spindle converter function is deactivated. The contents of SD42800 \$SC\_SPIND\_ASSIGN\_TAB[...] are not evaluated.  
 Value 1:  
 The spindle converter is activated. Conversion from logical to physical spindle takes place. For more information, see SD42800 \$SC\_SPIND\_ASSIGN\_TAB.  
 Note:  
 The spindle converter is deactivated after "Delete SRAM" (service switch in position "1").  
 Related to:  
 SD42800 \$SC\_SPIND\_ASSIGN\_TAB

20094	SPIND_RIGID_TAPPING_M_NR			C01, C03, C10	H2,K1,S1	
-	M function for switching into controlled axis mode			DWORD	PowerOn	
-						
-	-	70, 70, 70, 70, 70, 70, 70, 70, 70, 70...	-	-	7/2	M

**Description:** This machine data defines the M auxiliary function number with which the spindle is switched into axis mode.  
 The M number defined in the machine data replaces M70 in Siemens language mode.  
 Note:  
 On the VDI interface, M70 is always output with the corresponding address extension to indicate the switch to axis mode.  
 Restrictions: Refer to machine data MD10715 \$MN\_M\_NO\_FCT\_CYCLE  
 Related to:  
 MD10714 \$MN\_M\_NO\_FCT\_EOP,  
 MD10715 \$MN\_M\_NO\_FCT\_CYCLE,  
 MD20094 \$MC\_SPIND\_RIGID\_TAPPING\_M\_NR,  
 MD22254 \$MC\_AUXFU\_ASSOC\_M0\_VALUE  
 For external language mode:  
 MD10814 \$MN\_EXTERN\_M\_NO\_MAC\_CYCLE,  
 MD10804 \$MN\_EXTERN\_M\_NO\_SET\_INT  
 MD10806 \$MN\_EXTERN\_M\_NO\_DISABLE\_INT,  
 MD10800 \$MN\_EXTERN\_CHAN\_SYNC\_M\_NO\_MIN,  
 MD10802 \$MN\_EXTERN\_CHAN\_SYNC\_M\_NO\_MAX

MD20095 \$MC\_EXTERN\_RIGID\_TAPPING\_M\_NR

For nibbling:

\$MD26008 \$MC\_NIBBLE\_PUNCH\_CODE

20095	EXTERN_RIGID_TAPPING_M_NR	C01, C11, C03, C10	H2,K1
-	M function for switching to controlled axis mode(external mode)	DWORD	PowerOn
-			
-	-	29, 29, 29, 29, 29, 29, 29, 29...	7/2 M

**Description:** This machine data defines the M function number with which the switchover to controlled spindle/axis mode is to be carried out.  
The M number defined in the machine data replaces M29 in external language mode.  
Pre-defined M numbers, such as M00,M1,M2,M3, etc., are not allowed as M numbers.

Restrictions: See machine data MD10715 \$MN\_M\_NO\_FCT\_CYCLE

Related to:

MD10714 \$MN\_M\_NO\_FCT\_EOP,

MD10715 \$MN\_M\_NO\_FCT\_CYCLE,

MD20094 \$MC\_SPIND\_RIGID\_TAPPING\_M\_NR,

MD22254 \$MC\_AUXFU\_ASSOC\_M0\_VALUE

For external language mode:

MD10814 \$MN\_EXTERN\_M\_NO\_MAC\_CYCLE,

MD10804 \$MN\_EXTERN\_M\_NO\_SET\_INT

MD10806 \$MN\_EXTERN\_M\_NO\_DISABLE\_INT,

MD10800 \$MN\_EXTERN\_CHAN\_SYNC\_M\_NO\_MIN,

MD10802 \$MN\_EXTERN\_CHAN\_SYNC\_M\_NO\_MAX

MD20095 \$MC\_EXTERN\_RIGID\_TAPPING\_M\_NR

For nibbling:

MD26008 \$MC\_NIBBLE\_PUNCH\_CODE

20096	T_M_ADDRESS_EXT_IS_SPINO	C01, C04, C09	H2,W1
-	Meaning of address extension at T, M tool change	BOOLEAN	PowerOn
-			
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	7/2 M

**Description:** This MD is only significant if the functions 'Tool management'/'flat D numbers' are inactive.

FALSE

The contents of the address extensions of the NC addresses T and M 'tool change command number' are not evaluated by the NCK. The PLC decides on the significance of the programmed extension.

TRUE

The address extensions of the NC addresses T and M 'tool change command number' - 'tool change command number'=TOOL\_CHANGE\_M\_CODE with 6 as the default value - are interpreted as spindle numbers.

NCK treats the extension in the same way as the active functions 'tool management' and 'flat D number management'.

1.3 NC machine data

That is, the programmed D number always refers to the T number of the programmed main spindle number.

See also:

MD20090 \$MC\_SPIND\_DEF\_MASTER\_SPIND,  
 MD22550 \$MC\_TOOL\_CHANGE\_MODE,  
 MD22560 \$MC\_TOOL\_CHANGE\_M\_CODE

20098	DISPLAY_AXIS	EXP, C01	-			
-	Display axis on HMI	DWORD	Immediately			
-						
-	20	0xFFFFFFFF, 0xFFFFFFFF, 0xFFFFFFFF, 0xFFFFFFFF, 0xFFFFFFFF...	-	-	7/2	M

**Description:** Identifies whether the axis is to be displayed by the HMI as a machine, geometry or auxiliary axis.

This data is only evaluated by the HMI.

Bits 0 to 15: Machine

Bit 0= 1 Display machine axis in the actual value windows  
 0 Hide machine axis in the actual value windows

Bit 1= 1 Display machine axis in the reference point windows  
 0 Hide machine axis in the reference point windows

Bit 2=1 Display machine axis in preset/scratch/parameter work offset  
 0 Hide machine axis in preset/scratch/parameter work offset

Bit 3= 1 Display machine axis in the handwheel selection window  
 0 Hide machine axis in the handwheel selection window

Bit 16 to 31: WCS

Bit 16= 1 Display geometry axis in the actual value windows  
 0 Hide geometry axis in the actual value windows

(Bit 17) Not assigned

Bit 18= 1 Display geometry axis in parameter work offset  
 0 Hide geometry axis in parameter work offset

Bit 19= 1 Display geometry axis in the handwheel selection window  
 0 Hide geometry axis in the handwheel selection window

Bit 20= 1 Display position axes in the JOG/manual windows  
 0 Hide position axes in the JOG/manual windows

20100	DIAMETER_AX_DEF	C01, C10	H1,M5,P1,V1,W1			
-	Geometry axis with transverse axis function	STRING	PowerOn			
-						
-	-	...	-	-	7/2	M

**Description:** This MD is used to define a geometry axis as a transverse axis. Only one transverse axis can be defined here for each channel.

Further transverse axes for axis-specific diameter programming can be activated via MD30460 \$MA\_BASE\_FUNCTION\_MASK, bit 2.

The axis identifier of an active geometry axis that has been defined in the channel-specific MD20050 \$MC\_AXCONF\_GEOAX\_ASSIGN\_TAB[n] or MD24120 \$MC\_TRAFO\_AX\_GEOAX\_ASSIGN\_TAB\_1[n] (from SW 4) and MD20060 \$MC\_AXCONF\_GEOAX\_NAME\_TAB[n] must be specified.

If space characters are entered or if an axis identifier is specified for an axis which is not defined as a geometry axis, this leads to the following alarms:

- during runup, to alarm 4032 "Channel %1 wrong identifier for transverse axis in %2", if the "Diameter programming" function (DIAMON) or constant cutting velocity G96/G961/G962 is the switch-on setting.
- when the "Diameter programming (DIAMON)" function is activated, to alarm 16510 "Channel %1 block %2 No transverse axis available for diameter programming", if no axis has been permitted via DIAMCHANA[AX] for channel-specific diameter programming.
- when G96/G961/G962 has been programmed, to alarm 10870 "Channel %1 block %2 No transverse axis defined as reference axis for G96/G961/G962", if no geometry axis has been defined as the reference axis for G96/G961/G962 by the instruction SCC[ax].

Related to:

MD20050 \$MC\_AXCONF\_GEOAX\_ASSIGN\_TAB[n]

(assignment of geometry axis to channel axis)

MD20060 \$MC\_AXCONF\_GEOAX\_NAME\_TAB[n]

(geometry axis name in the channel)

MD24120 \$MC\_TRAFO\_AX\_GEOAX\_ASSIGN\_TAB\_1[n]

(assignment of GEO axis to channel axis for transformation 1)

MD30460 \$MA\_BASE\_FUNCTION\_MASK

(Bit2 == 1: Axis-specific diameter programming)

20105	PROG_EVENT_IGN_REFP_LOCK			N01	K1,Z1	
-	Start Prog-Events despite non-referenced axes.			DWORD	PowerOn	
-						
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0	0x3F	7/2	M

**Description:** The behavior of event-driven program calls (Prog-Events) regarding non-referenced axes can be set.

Bit 0 = 1 :

Prog-Event ignores non-referenced axes after part program start

Bit 1 = 1 :

Prog-Event ignores non-referenced axes after part program end

Bit 2 = 1 :

Prog-Event after operator panel reset ignores non-referenced axes

Bit 3 = 1 :

Prog-Event after power-up ignores non-referenced axes

Bit 4 = 1 :

Prog-Event after 1st start after search ignores non-referenced axes

Bit 5 = 1 :

reserved

Corresponds to:

MD20106 \$MC\_PROG\_EVENT\_IGN\_SINGLEBLOCK

MD20107 \$MC\_PROG\_EVENT\_IGN\_INHIBIT

MD20108 \$MC\_PROG\_EVENT\_MASK

MD20192 \$MC\_PROG\_EVENT\_IGN\_PROG\_STATE

MD20193 \$MC\_PROG\_EVENT\_IGN\_STOP

The machine data MD20105 \$MC\_PROG\_EVENT\_IGN\_REFP\_LOCK and MD20115

\$MC\_IGNORE\_REFP\_LOCK\_ASUP replace bit 1 from MD11602 \$MN\_ASUP\_START\_MASK.

1.3 NC machine data

If MD20700 \$MC\_REFP\_NC\_START\_LOCK is set, the setting in MD20105 \$MC\_PROG\_EVENT\_IGN\_REFP\_LOCK is ignored.

20106	PROG_EVENT_IGN_SINGLEBLOCK			N01	K1,Z1	
-	Prog-Events ignore single block			DWORD	PowerOn	
-						
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0	0x3F	7/2	M

**Description:** Event-driven program calls (Prog-Events) can be set regarding their single-block response.

Bit 0 = 1 :

Prog-Event after start-of-part-program causes block change without restart

Bit 1 = 1 :

Prog-Event after end-of-part-program causes block change without restart

Bit 2 = 1 :

Prog-Event after OP reset causes block change without restart

Bit 3 = 1 :

Prog-Event after ramp-up causes block change without restart

Bit 4 = 1 :

Prog-Event after 1st start after search causes block change without restart

Bit 5 = 1 :

Safety Prog-Event during ramp-up causes block change without restart

Corresponds to:

MD20105 \$MC\_PROG\_EVENT\_IGN\_REFP\_LOCK

MD20107 \$MC\_PROG\_EVENT\_IGN\_INHIBIT

MD20108 \$MC\_PROG\_EVENT\_MASK

MD20192 \$MC\_PROG\_EVENT\_IGN\_PROG\_STATE

MD20193 \$MC\_PROG\_EVENT\_IGN\_STOP

20107	PROG_EVENT_IGN_INHIBIT			N01	K1,Z1	
-	Prog-Events ignore read-in disable			DWORD	PowerOn	
-						
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0	0x3F	7/2	M

**Description:** Event-driven programm calls (Prog-Events) can be set regarding their read-in disable response.

Bit 0 = 1 :

Prog-Event after start-of-part-program causes block change despite read-in disable

Bit 1 = 1 :

Prog-Event after end-of-part-program causes block change despite read-in disable

Bit 2 = 1 :

Prog-Event after OP reset causes block change despite read-in disable

Bit 3 = 1 :

Prog-Event after ramp-up causes block change despite read-in disable

Bit 4 = 1 :

Prog-Event after 1st start after search run causes block change despite read-in disable

Bit 5 = 1 :

Safety-Prog-Event during ramp-up causes block change despite read-in disable  
Corresponds to:

MD20105 \$MC\_PROG\_EVENT\_IGN\_REFP\_LOCK  
MD20106 \$MC\_PROG\_EVENT\_IGN\_SINGLEBLOCK  
MD20108 \$MC\_PROG\_EVENT\_MASK  
MD20192 \$MC\_PROG\_EVENT\_IGN\_PROG\_STATE  
MD20193 \$MC\_PROG\_EVENT\_IGN\_STOP

20108	PROG_EVENT_MASK	N01, -	TE3,K1			
-	Setting of event-driven programm calls	DWORD	PowerOn			
-						
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0	0x3F	7/2	M

**Description:** Parameterization of the events causing the user program set with MD11620 \$MN\_PROG\_EVENT\_NAME (default: N\_PROG\_EVENT\_SPF) or the safety program N\_SAFE\_SPF to be called implicitly:

Bit 0 = 1 : Start of part program  
Bit 1 = 1 : End of part program  
Bit 2 = 1 : Operator panel reset  
Bit 3 = 1 : Ramp-up  
Bit 4 = 1 : Reserved  
Bit 5 = 1 : Safety program booting

The user program is called via the following search path:

1. /N\_CUS\_DIR/N\_PROG\_EVENT\_SPF
2. /N\_CMA\_DIR/N\_PROG\_EVENT\_SPF
3. /N\_CST\_DIR/N\_PROG\_EVENT\_SPF

The safety program has to be available in the following location:

1. /N\_CST\_DIR/N\_SAFE\_SPF

Furthermore, MD11450 \$MN\_SEARCH\_RUN\_MODE bit 1 also causes the user program set with MD11620 \$MN\_PROG\_EVENT\_NAME to be started up automatically after the action blocks, regardless of the settings in the machine data.

Corresponds to:

MD20105 \$MC\_PROG\_EVENT\_IGN\_REFP\_LOCK  
MD20106 \$MC\_PROG\_EVENT\_IGN\_SINGLEBLOCK  
MD20107 \$MC\_PROG\_EVENT\_IGN\_INHIBIT  
MD20192 \$MC\_PROG\_EVENT\_IGN\_PROG\_STATE  
MD20193 \$MC\_PROG\_EVENT\_IGN\_STOP

20109	PROG_EVENT_MASK_PROPERTIES	N01	K1			
-	Properties of Prog-Events	DWORD	PowerOn			
-						
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0	0x1	7/2	M

**Description:** Parameterization of additional properties of the event-controlled program calls (in short, Prog-Event), that is, the MD20108 \$MC\_PROG\_EVENT\_MASK is further parameterized.

Bit 0 = 1 :

An ASUB started from channel status RESET does not result in a Prog-Event.

20110	RESET_MODE_MASK	C11, C03	F2,K6,M3,TE4,W5,B3,K5,M1, G2,K1,K2,P1,S1,W1,2.4,2.7
-	Definition of basic control settings after reset/PP end	DWORD	Reset
-			
-	-	0x1, 0x1, 0x1, 0x1, 0x1, 0x1, 0x1, 0x1...	0
		0x7FFFF	7/2
			M

**Description:** Definition of the initial setting of the control after ramp-up and at reset/end-of-part-program with regard to the G codes (in particular the active plane and the settable work offset), tool length offset and transformation by setting the following bits:

Bit 0: Reset mode

Bit 1: Suppress aux. funct. output on tool selection

Bit 2: Select reset response after power-on (e.g. tool offset)

Bit 3: Select reset response after end of test mode with regard to active tool offsets

Bit 4: Reserved

Bit 5: Reserved

Bit 6: Reset response "Active tool length offset"

Bit 7: Reset response "Active kinematic transformation"

Bit 8: Reset response "Coupled-motion axes"

Bit 9: Reset response "Tangential correction"

Bit 10: Reset response "Synchronous spindle"

Bit 11: Reset response "Revolutional feedrate"

Bit 12: Reset response "Geo axis replacement"

Bit 13: Reset response "Master value coupling"

Bit 14: Reset response "Basic frame"

Bit 15: Reset response "Electronic gearbox"

Bit 16: Reset response "Master spindle"

Bit 17: Reset response "Master toolholder"

Bit 18: Reset response "Reference axis for G96/G961/G962"

Bit 19: Reserved "Adjustable software limit switch ineffective"

Bits 4 to 11, 16, and 17 are only evaluated when bit 0 = 1.

Meaning of each bit:

Bit 0 (LSB) = 0: Corresponds with response of software version 1, only recommended for test mode

Initial setting after ramp-up:

- G codes acc. to \$MC\_GCODE\_RESET\_VALUES
- Tool length offset not active
- Transformation not active
- No coupled-motion axis groupings active
- No tangential correction active
- No axial revolutional feedrate active
- Path revolutional feedrate with master spindle (default)

Initial setting after reset or end-of-part-program:

The current settings are retained.

When next part program is started, the following initial setting is in effect:

- G codes acc. to \$MC\_GCODE\_RESET\_VALUES
- Tool length offset not active



- Transformation not active
  - No coupled-motion axis groupings active
  - No tangential correction active
  - No master value coupling active
  - No axial revolutional feedrate active
  - Path revolutional feedrate with master spindle (default)
- Bit 0 (LSB) = 1: Standard value for Powerline and Solutionline systems
- Initial setting after ramp-up:
- G codes acc. to \$MC\_GCODE\_RESET\_VALUES
  - Tool length offset active acc. to \$MC\_TOOL\_RESET\_VALUE, \$MC\_CUTTING\_EDGE\_RESET\_VALUE and \$MC\_SUMCORR\_RESET\_VALUE
  - Transformation active acc. to \$MC\_TRAFO\_RESET\_VALUE
  - Geometry axis replacement acc. to \$MC\_GEOAX\_CHANGE\_RESET
  - No coupled-motion axis groupings active
  - No tangential correction active
- Initial setting after reset or end-of-part-program:
- Depending on \$MC\_GCODE\_RESET\_MODE the current settings are retained for the G groups or the initial settings stored in \$MC\_GCODE\_RESET\_VALUES are set.
- Initial setting after reset or end-of-part-program:
- Depending on \$MC\_RESET\_MODE\_MASK bits 6 to 7, the current settings are retained or the initial settings stored in the MDs are set for:
- Tool length offset
  - Transformation
- Depending on bits 8 and 9, the current settings of coupled-motion axes or tangentially corrected axes are either deactivated or retained.
- Synchronous spindle coupling configured:
- The coupling is deselected depending on the setting in \$MC\_COUPLE\_RESET\_MODE\_1.
- Synchronous spindle coupling not configured:
- Depending on bit 10, the coupling is either deactivated or retained.
- Depending on bit 14, the basic frame is either retained or deselected.
- Bit 1 = 0:
- Aux. funct. output (D, T, M) to PLC on tool selection according to MDs \$MC\_TOOL\_RESET\_VALUE, \$MC\_CUTTING\_EDGE\_RESET\_VALUE, \$MC\_TOOL\_PRESEL\_RESET\_VALUE, and \$MC\_TOOL\_CHANGE\_MODE. If magazine management is active, T, M are generally not output as auxiliary functions.
- The function uses its own communication to output T, M to the PLC, for example.
- Bit 1 = 1:
- Suppress aux. funct. output to PLC on tool selection.
- If tool management or magazine management is active, T, M are generally not output as auxiliary functions.
- Bit 2 = 0:
- If tool or magazine management is not active:
- No tool offset active after power-on. Active and programmed T depend on the subsequent settings of the machine data (bits 0, 6).
- If tool or magazine management is active:
- Not relevant

Bit 2 = 1:

If tool or magazine management is not active:

- If bits 0 and 6 both = 1 (0x41), the tool offset of the last tool active in the NCK is active after the first reset after power-on.

(The value of the programmed tool depends on the value of machine data \$MC\_TOOL\_PRESEL\_RESET\_VALUE.)

Notice: The NCK does not know the conditions at the machine.

If tool or magazine management is active:

- Not relevant

Bit 3 = 0:

With and without active tool management:

End of test mode: "Retain current setting for active tool length offset" (bits 0 and 6 set) refers to the program which was active before activation of test mode.

Bit 3 = 1:

Relevant only if tool management is not active:

End of test mode: "Retain current setting for active tool length offset" (bits 0 and 6 set) refers to the program which was active at the end of test mode. (If tool management is active, the tool on the spindle is generally the active tool. Exception only for \$MC\_CUTTING\_EDGE\_DEFAULT = -2.)

Bit 4 = 0:Reserved

Bit 4 = 1:Reserved

Bit 5 = 0:Reserved

Bit 5 = 1:Reserved

Bit 6 = 0:

Initial setting for active tool length offset after reset/end-of-part-program acc. to \$MC\_TOOL\_RESET\_VALUE, \$MC\_CUTTING\_EDGE\_RESET\_VALUE, \$MC\_USEKT\_RESET\_VALUE, and \$MC\_SUMCORR\_RESET\_VALUE.

If \$MC\_TOOL\_CHANGE\_MODE = 1, the tool specified in \$MC\_TOOL\_PRESEL\_RESET\_VALUE is also preselected.

If tool or magazine management is active, \$MC\_TOOL\_RESET\_NAME is used instead of \$MC\_TOOL\_RESET\_VALUE.

Bit 6 = 1:

Current setting for active tool length offset is retained after reset/end-of-part-program.

If tool or magazine management is active, the tool that is currently on the master spindle (generally = master toolholder) is selected.

If the tool on the master spindle is disabled, the 'disabled' status is ignored.

Please note that after a program ends or is canceled either the most recent value for master spindle or master toolholder programmed in the program or the value specified with \$MC\_SPIND\_DEF\_MASTER\_SPIND or \$MC\_TOOL\_MANAGEMENT\_TOOLHOLDER defines the master spindle or master toolholder.

(The selection is made using bit 16 or bit 17.)

For \$MC\_CUTTING\_EDGE\_DEFAULT = -2 the following applies specifically:

If a tool has been switched to the spindle but a new offset D has not yet been programmed, the previous tool is still active in the NCK.

If machining is canceled in this status (e.g. with the Reset key), the offset is defined with the smallest D number associated with the master spindle tool.

Bit 7 = 0:  
Initial setting for active transformation after reset/end-of-part-program according to `$MC_TRAFO_RESET_VALUE`.

Bit 7 = 1:  
The current setting for active transformation is retained after reset/end-of-part-program.

Bit 8 = 0:  
Coupled-motion axis groupings are ungrouped at reset/end-of-part-program.

Bit 8 = 1:  
Coupled-motion axis groupings remain active after reset/end-of-part-program.

Bit 9 = 0:  
Tangential correction is switched off at reset/end-of-part-program.

Bit 9 = 1:  
Tangential correction remains active after reset/end-of-part-program.

Bit 10 = 0:  
Non-configured synchronous spindle coupling is switched off at reset/end-of-part-program.

Bit 10 = 1:  
Non-configured synchronous spindle coupling remains active after reset/end-of-part-program.

Bit 11 = 0:  
At reset/end-of-part-program the setting data `$SA_ASSIGN_FEED_PER_REV_SOURCE` is reset to 0 for all non-active axes/spindles, i.e. traversing at revolutional feedrate is canceled and the setting for path and synchronous axes is reset to the master spindle (default).

Bit 11 = 1:  
The current setting for revolutional feedrate is retained after reset/end-of-part-program. At the start of the part program, the setting data `$SA_ASSIGN_FEED_PER_REV_SOURCE` is reset to 0 for all non-active axes/spindles, i.e. traversing at revolutional feedrate is canceled and the setting for path and synchronous axes is reset to the master spindle (default).

Bit 12 = 0:  
If machine data `$MC_GEOAX_CHANGE_RESET` is set, a changed geometry axis assignment is canceled at reset/end-of-part-program. The initial setting for the geometry axis assignment defined in the machine data becomes active.

Bit 12 = 1:  
A changed geometry axis assignment remains active after reset/end-of-part-program.

Bit 13 = 0:  
Master value couplings are canceled at reset/end-of-part-program.

Bit 13 = 1:  
Master value couplings remain active after reset/end-of-part-program.

Bit 14 = 0:  
The basic frame is deselected.

Bit 14 = 1:  
The current setting of the basic frame is retained.

Bit 15 = 0:  
Active electronic gearboxes remain active at reset/end-of-part-program.

Bit 15 = 1:  
Active electronic gearboxes are canceled at reset/end-of-part-program.

1.3 NC machine data

Bit 16 = 0:  
Initial setting for the master spindle according to \$MC\_SPIND\_DEF\_MASTER\_SPIND.

Bit 16 = 1:  
The current setting of the master spindle (SETMS) is retained.  
If \$MC\_TOOL\_MANAGEMENT\_TOOLHOLDER = 0, this bit has also an effect on the response of bit 6.

Bit 17 = 0:  
Initial setting for the master toolholder according to \$MC\_TOOL\_MANAGEMENT\_TOOLHOLDER

Bit 17 = 1:  
The current setting of the master toolholder (SETMTH) is retained  
(Bit 17 is only relevant if tool or magazine management is active and if \$MC\_TOOL\_MANAGEMENT\_TOOLHOLDER > 0. Otherwise, the setting for master spindle bit 16 applies if tool or magazine management is active. This bit has also an effect on the response of bit 6.)

Bit 18 = 0:  
Reference axis for G96/G961/G962 according to MD 20100: \$MC\_DIAMETER\_AX\_DEF.  
When using SCC with its own spindle reset, setting bit 18 = 1 is recommended (see also MD 20112: \$MC\_START\_MODE\_MASK, bit 18).

Bit 18 = 1:  
Reference axis for G96/G961/G962 is retained.

Bit 19: Reserved!

Bit 19 = 0:  
The two adjustable software limit switches are deleted after reset and are no longer effective.

Bit 19 = 1:  
The two adjustable software limit switches remain active after reset.  
Corresponds with:  
MD20120 \$MC\_TOOL\_RESET\_VALUE  
MD20130 \$MC\_CUTTING\_EDGE\_RESET\_VALUE  
MD20150 \$MC\_GCODE\_RESET\_VALUES  
MD20152 \$MC\_GCODE\_RESET\_MODE  
MD20140 \$MC\_TRAFO\_RESET\_VALUE  
MD20112 \$MC\_START\_MODE\_MASK  
MD20121 \$MC\_TOOL\_PRESEL\_RESET\_VALUE  
MD20118 \$MC\_GEOAX\_CHANGE\_RESET

20112	START_MODE_MASK	C03	K6,M3,K5,M1,K1,K2,P1,S1,W 1			
-	Definition of basic setting of control after part program start	DWORD	Reset			
-						
-	-	0x400, 0x400, 0x400, 0x400, 0x400, 0x400...	0	0x7FFFF	7/2	M

**Description:** Definition of the initial setting of the control at the start of the part program with respect to G codes (in particular, active plane and active settable work offset), tool length offset, transformation, and axis couplings by setting the following bits:  
Bit 0: Not assigned: MD20112 \$MC\_START\_MODE\_MASK is evaluated every time a part program starts up

Bit 1: Suppress aux. funct. output on tool selection  
 Bit 2: Not assigned, but reserved (see corresponding bit in RESET\_MODE\_MASK)  
 Bit 3: Not assigned, but reserved (see corresponding bit in RESET\_MODE\_MASK)  
 Bit 4: Start response for G code "Current plane"  
 Bit 5: Start response for G code "Settable work offset"  
 Bit 6: Start response for "Active tool length offset"  
 Bit 7: Start response for "Active kinematic transformation"  
 Bit 8: Start response for "Coupled-motion axes"  
 Bit 9: Start response for "Tangential correction"  
 Bit 10: Start response for "Synchronous spindle"  
 Bit 11: Not assigned, but reserved (see corresponding bit in RESET\_MODE\_MASK)  
 Bit 12: Start response for "Geo axis replacement"  
 Bit 13: Start response for "Master value coupling"  
 Bit 14: Not assigned, but reserved (see corresponding bit in RESET\_MODE\_MASK)  
 Bit 15: Not assigned, but reserved (see corresponding bit in RESET\_MODE\_MASK)  
 Bit 16: Start response for "Master spindle"  
 Bit 17: Start response for "Master toolholder"  
 Bit 18: Start response for "Reference axis for G96/G961/G962"  
 Bit 19: Reserved "Adjustable software limit switch ineffective"

Meaning of individual bits:

Bit 1 = 0:

Auxiliary function output (D, T, M, DL) to PLC on tool selection according to the following MDs: \$MC\_TOOL\_RESET\_VALUE, \$MC\_CUTTING\_EDGE\_RESET\_VALUE, \$MC\_TOOL\_PRESEL\_RESET\_VALUE, and \$MC\_TOOL\_CHANGE\_MODE.

Note:

If tool or magazine management is active, only auxiliary functions D and DL are output.

Bit 1 = 1:

Suppress auxiliary function output to PLC on tool selection.

Bit 1 is not relevant if tool or magazine management is active.

Bit 2 : Reserved (reset response after power-on)

Bit 3 : Reserved (end of test mode)

Bit 4 = 0:

The current setting for G code "current plane" is retained.

Bit 4 = 1:

Initial setting for G code "current plane" according to \$MC\_GCODE\_RESET\_VALUES

Bit 5 = 0:

The current setting for G code "settable work offset" is retained.

Bit 5 = 1:

Initial setting for G code "settable work offset" according to \$MC\_GCODE\_RESET\_VALUES

Bit 6 = 0:

The current setting for active tool length offset is retained.

If tool or magazine management is active, the tool currently on the active toolholder (spindle) is always selected.

If the tool that is currently on the spindle is disabled, it is automatically replaced by a suitable spare tool.

If such a spare tool does not exist, an alarm is output.

Bit 6 = 1:

Initial setting for active tool length offset according to \$MC\_TOOL\_RESET\_VALUE, \$MC\_CUTTING\_EDGE\_RESET\_VALUE, \$MC\_USEKT\_RESET\_VALUE, and \$MC\_SUMCORR\_RESET\_VALUE.

If \$MC\_TOOL\_CHANGE\_MODE == 1, the tool selected via \$MC\_TOOL\_PRESEL\_RESET\_VALUE is preselected in addition.

If tool or magazine management is active, MD \$MC\_TOOL\_RESET\_NAME is used instead of \$MC\_TOOL\_RESET\_VALUE.

Bit 7 = 0:

The current setting for active transformation is retained.

Bit 7 = 1:

Initial setting for active transformation after reset/end-of-part-program according to \$MC\_TRAFO\_RESET\_VALUE

Bit 8 = 0:

Coupled-motion axis groupings remain active.

Bit 8 = 1:

Coupled-motion axis groupings are ungrouped.

Bit 9 = 0:

Tangential correction remains active.

Bit 9 = 1:

Tangential correction is switched off.

Bit 10 = 0:

Non-configured synchronous spindle coupling remains active.

Bit 10 = 1:

Non-configured synchronous spindle coupling is switched off.

Bit 11 : Reserved (revolutional feedrate)

Bit 12 = 0:

A changed geometry axis assignment remains active when the part program starts up.

Bit 12 = 1:

If machine data \$MC\_GEOAX\_CHANGE\_RESET is set, a changed geometry axis assignment is deleted when the part program starts up.

Bit 13 = 0:

Master value couplings remain active.

Bit 13 = 1:

Master value couplings are canceled.

Bit 14 : Reserved (basic frame)

Bit 15 = 0:

Active electronic gearboxes remain active.

Bit 15 = 1:

Active electronic gearboxes are canceled.

Bit 16 = 0:

The current setting of the master spindle (SETMS) is retained.

Bit 16 = 1:

Initial setting for the master spindle according to \$MC\_SPIND\_DEF\_MASTER\_SPIND

Bit 17 = 0:

The current setting of the master toolholder (SETMTH) is retained (relevant only if tool or magazine management is active)

Bit 17 = 1:

Only if \$MC\_TOOL\_MANAGEMENT\_TOOLHOLDER > 0: Initial setting for the master toolholder according to \$MC\_TOOL\_MANAGEMENT\_TOOLHOLDER.

Otherwise, the setting for the master spindle applies.

Bit 18 = 0:

Reference axis for G96/G961/G962 according to MD20100 \$MC\_DIAMETER\_AX\_DEF.

When using SCC with its own spindle reset, setting bit 18 = 1 is recommended (see also MD 20110: \$MC\_RESET\_MODE\_MASK, bit 18).

Bit 18 = 1:

Reference axis for G96/G961/G962 is retained.

Corresponds with:

MD20120 \$MC\_TOOL\_RESET\_VALUE

MD20130 \$MC\_CUTTING\_EDGE\_RESET\_VALUE

MD20150 \$MC\_GCODE\_RESET\_VALUES

MD20152 \$MC\_GCODE\_RESET\_MODE

MD20140 \$MC\_TRAFO\_RESET\_VALUE

MD20110 \$MC\_RESET\_MODE\_MASK

MD20121 \$MC\_TOOL\_PRESEL\_RESET\_VALUE

MD20118 \$MC\_GEOAX\_CHANGE\_RESET

20114	MODESWITCH_MASK			C03	K1	
-	Interruption MDI by mode change			DWORD	Reset	
-						
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0	0xFFFF	7/2	M

**Description:** After program interruption in MDI mode (e.g. in order to carry out a measurement on the workpiece and to correct the tool wear values or after tool breakage) the tool can be manually withdrawn from the contour by changing into JOG mode.

In this case, the control stores the coordinates of the position of the interruption and indicates the path differences traversed by the axes in JOG mode as "Repos offset". When MDI mode is selected again, the axis is repositioned on the contour. This response can be canceled by means of this machine data.

Bit 0 (LSB) = 0:

When MDI (JOG, JOGREF, JOGREPOS, MDIREF and MDIREPOS) are deselected in stopped status, the system ASUB Repos is selected.

Bit 0 (LSB) = 1:

When MDI (JOG, JOGREF, JOGREPOS, MDIREF and MDIREPOS) are deselected in stopped status, the system ASUB Repos is not selected.

Bit 1 (LSB) = 0:

If the NCK stops at a part program block in the program execution in which repositioning is not possible, alarm 16916 is generated if an attempt is made to switch to manual mode.

Bit 1 (LSB) = 1:

If the NCK stops at a part program block in the program execution in which repositioning is not possible, no alarm is generated if an attempt is made to switch to manual mode.

20115	IGNORE_REFP_LOCK_ASUP		C01		K1,Z1	
-	Process interrupt program despite non-referenced axes		DWORD		NEW CONF	
-						
-	-	0x200, 0x200, 0x200, 0x200, 0x200, 0x200...	-	-	7/2	M

**Description:** Despite non-referenced axes, an assigned user ASUB is processed for the interrupt channel whose bit is set.  
 Bit 0 is assigned to interrupt channel 1.  
 Bit 1 is assigned to interrupt channel 2, etc.  
 Corresponds to:  
 MD20116 \$MC\_IGNORE\_INHIBIT\_ASUP  
 MD20117 \$MC\_IGNORE\_SINGLEBLOCK\_ASUP  
 The machine data MD20105 \$MC\_PROG\_EVENT\_IGN\_REFP\_LOCK and MD20115 \$MC\_IGNORE\_REFP\_LOCK\_ASUP replace bit 1 from MD11602 \$MN\_ASUP\_START\_MASK.  
 If MD20700 \$MC\_REFP\_NC\_START\_LOCK is set, the setting in MD20105 \$MC\_PROG\_EVENT\_IGN\_REFP\_LOCK will be ignored.

20116	IGNORE_INHIBIT_ASUP		C01		K1,Z1	
-	Execute interrupt program despite read-in disable		DWORD		NEW CONF	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/2	M

**Description:** In spite of the set read-in disable, an assigned user ASUB is completely executed for the interrupt channel with the set bit.  
 Bit 0 is assigned to interrupt channel 1.  
 Bit 1 is assigned to interrupt channel 2, etc.  
 Related to:  
 MD20115 \$MC\_IGNORE\_REFP\_LOCK\_ASUP  
 MD20117 \$MC\_IGNORE\_SINGLEBLOCK\_ASUP

20117	IGNORE_SINGLEBLOCK_ASUP		C01		K1,Z1	
-	Execute interrupt program completely despite single block		DWORD		NEW CONF	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/2	M

**Description:** In spite of the set single-block processing mode, an assigned user ASUB is completely executed for the relevant channel with the set bit.  
 Bit 0 is assigned to interrupt channel 1.  
 Bit 1 is assigned to interrupt channel 2, etc.  
 The MD is only active with single block type 1.  
 Related to:  
 MD20115 \$MC\_IGNORE\_REFP\_LOCK\_ASUP  
 MD20116 \$MC\_IGNORE\_INHIBIT\_ASUP



20118	GEOAX_CHANGE_RESET		C03	M1,K1,Z1		
-	Enable automatic geometry axis change		BOOLEAN	Reset		
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/2	M

**Description:**

0: The current configuration of the geometry axes remains unchanged on reset and part program start. With this setting, the response is identical to that with older software versions without geometry axis replacement.

1: The configuration of the geometry axes remains unchanged on reset or part program end, depending on MD20110 \$MC\_RESET\_MODE\_MASK and, on part program start, depending on MD20112 \$MC\_START\_MODE\_MASK, or is switched to the initial state defined by MD20050 \$MC\_AXCONF\_GEOAX\_ASSIGN\_TAB.

Related to:

MD20050 \$MC\_AXCONF\_GEOAX\_ASSIGN\_TAB  
MD20110 \$MC\_RESET\_MODE\_MASK  
MD20112 \$MC\_START\_MODE\_MASK

20120	TOOL_RESET_VALUE		C03	K1,W1		
-	Tool with length compens. during runup (reset/part program end).		DWORD	Reset		
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	32000	7/2	M

**Description:**

Definition of the tool for which tool length compensation is selected during runup or on reset or part program end as a function of MD20110 \$MC\_RESET\_MODE\_MASK, and on part program start as a function of MD20112 \$MC\_START\_MODE\_MASK

Related to:

MD20110 \$MC\_RESET\_MODE\_MASK  
MD20112 \$MC\_START\_MODE\_MASK

20121	TOOL_PRESEL_RESET_VALUE		C03	K1,W1		
-	Preselected tool on RESET		DWORD	Reset		
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	32000	7/2	M

**Description:**

Definition of the preselected tool in MD20310 \$MC\_TOOL\_MANAGEMENT\_MASK=1. A tool is selected after runup, or on reset or part program end as a function of MD20110 \$MC\_RESET\_MODE\_MASK, and on part program start as a function of MD20112 \$MC\_START\_MODE\_MASK.

This MD is valid only without tool management.

Related to:

MD20110 \$MC\_RESET\_MODE\_MASK  
MD20112 \$MC\_START\_MODE\_MASK

20122	TOOL_RESET_NAME		C03	-		
-	Active tool at RESET/START with tool management		STRING	Reset		
-						
-	-	...	-	-	7/2	M

**Description:** This MD is used only with active tool management.

1.3 NC machine data

Definition of the tool for which tool length compensation is selected during runup or on reset or part program end as a function of MD20110 \$MC\_RESET\_MODE\_MASK, and on part program start as a function of MD20112 \$MC\_START\_MODE\_MASK.

Related to:

- MD20110 \$MC\_RESET\_MODE\_MASK,
- MD20112 \$MC\_START\_MODE\_MASK
- MD20124 \$MC\_TOOL\_MANAGEMENT\_TOOLHOLDER
- MD20130 \$MC\_CUTTING\_EDGE\_RESET\_VALUE

20123	USEKT_RESET_VALUE	C03	-
-	Preselected value of \$P_USEKT on RESET	DWORD	Reset
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0 0xF 7/2 M

**Description:**

The system variable \$P\_USEKT is set with the value of this MD:

- after run-up:  
As a function of MD20112 \$MC\_START\_MODE\_MASK
- after RESET or part program end:  
As a function of MD20110 \$MC\_RESET\_MODE\_MASK

Related to:

- MD20110 \$MC\_RESET\_MODE\_MASK
- MD20112 \$MC\_START\_MODE\_MASK

20124	TOOL_MANAGEMENT_TOOLHOLDER	C03	H2,K1
-	Tool holder number	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0 20 7/2 M

**Description:**

This MD is only relevant with tool management active.  
 The TM must know on which tool holder a tool has to be loaded.  
 The data is only evaluated if the value is greater than zero.  
 Then, the numbers \$TC\_MPP5 are no longer regarded as spindle numbers but as tool holder numbers.  
 The automatic address extension of T and M=6 is then the value of this machine data, and no longer the value of MD20090 \$MC\_SPIND\_DEF\_MASTER\_SPIND.  
 The MD defines the master tool holder number to which a tool preparation or a tool change refers.  
 Reference is also made to this value for the determination of the tool on the tool holder for the setting 'retain old offset' of MD20110 \$MC\_RESET\_MODE\_MASK.  
 If a machine has several tool holders but no defined master spindle, then the MD serves as a default value for determining the tool holder on which the tool is to be loaded during a tool change (reset, start, T='identifier', M6).  
 When defining the magazine locations of internal magazines (see documentation for TM), locations of the type 'SPINDLE' - \$TC\_MPP1=2 = spindle location can be given a 'location kind index' (\$TC\_MPP5). This assigns the location to a specific tool holder.  
 The tool holder with the number n can be declared the master tool holder with the language command SETMTH(n). That is, the offsets of a tool, which is loaded in a provisional buffer storage location of the type 'SPINDLE', correct the tool path with the value \$TC\_MPP5=n.

Tool changes on 'SPINDLE' locations with \$TC\_MPP5 unequal to the number of the master tool holder do not influence the path.

The tool holder defined in the MD is again declared as the master tool holder with SETMTH.

Related to:

MD20110 \$MC\_RESET\_MODE\_MASK,

MD20112 \$MC\_START\_MODE\_MASK

MD20122 \$MC\_TOOL\_RESET\_NAME

MD20130 \$MC\_CUTTING\_EDGE\_RESET\_VALUE

References:

Description of Functions: Coordinate Systems (K2)

20125	CUTMOD_ERR	C08	-
-	Error handling for function CUTMOD	DWORD	Immediately
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-
-	-	-	7/7 M

**Description:** When function CUTMOD becomes active (through explicit call or tool selection), various error conditions may occur. For any of these error conditions it is possible to use this machine data to set whether the error shall trigger an alarm and, if so, whether such an alarm shall only be displayed (warning) or whether the interpretation of the part program shall be canceled.

Two machine data bits are assigned to each error condition (also see the description of alarm 14162).

The 2nd bit, which can be used in the case of an error to set that the part program interpretation should be interrupted, is only effective, if the associated 1st bit (display) of an alarm is also set.

Bit Hex. Meaning

Value

-----

0	0x1	Display error "Invalid cutting direction."
1	0x2	Program stop after error "Invalid cutting direction".
2	0x4	Display error "Undefined cutting edge angle".
3	0x8	Program stop after error "Undefined cutting edge angle".
4	0x10	Display error "Invalid clearance angle".
5	0x20	Program stop after error "Invalid clearance angle".
6	0x40	Display error "Invalid holder angle".
7	0x80	Program stop after error "Invalid holder angle".
8	0x100	Display error "Invalid insert angle".
9	0x200	Program stop after error "Invalid tool angle".
10	0x400	Program stop after error "Invalid insert angle".
11	0x800	Program stop after error "Invalid combination of cutting edge position and holder angle".
12	0x1000	Display error "Invalid rotation."
13	0x2000	Program stop after error "Invalid rotation".
14	0x4000	Display error "cutting edge plane deviates too significantly from machining plane".
15	0x8000	Program stop after error "Cutting edge plane deviates too significantly from machining plane".

20126	TOOL_CARRIER_RESET_VALUE	C03	W1
-	Active tool holder on RESET	DWORD	Reset
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-
-	-	-	7/7 M

**Description:** Definition of the tool holder for which tool length compensation is selected during runup or on reset or part program end as a function of MD20110 \$MC\_RESET\_MODE\_MASK and as a function of MD20112 \$MC\_START\_MODE\_MASK on part program start.  
 This data is valid without tool management.  
 Related to:  
 MD20110 \$MC\_RESET\_MODE\_MASK  
 MD20112 \$MC\_START\_MODE\_MASK

20127	CUTMOD_INIT	C08	K1,W1
-	Initialize CUTMOD after power ON	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-2
-	-	999999999	7/2 M

**Description:** The value programmable with NC command CUTMOD is initialized automatically on power ON with the value stored in this machine data. If the value of the machine data equals -2, CUTMOD will be set to the value included in MD20126 \$MC\_TOOL\_CARRIER\_VALUE.

20128	COLLECT_TOOL_CHANGE	C04	-
-	Tool change commands to PLC after search run	DWORD	PowerOn
-			
-	-	1, 1, 1, 1, 1, 1, 1, 1...	-
-	-	-	1/1 M

**Description:** This MD is only relevant with active magazine management (MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK, MD20310 \$MC\_TOOL\_MANAGEMENT\_MASK).  
 It defines whether or not tool change commands, tool preparation commands (tool change commands in general) are output to the PLC after block search with calculation.  
 1: Tool change commands, tool preparation commands are collected and, after reaching the search target, output to the PLC with program start.  
 0: All tool/magazine-specific commands that have been collected during the block search are not output to the PLC with the subsequent program start! This means that programmed POSM, TCI, TCA commands are not output either.  
 Note 1:  
 Without active magazine management, the tool change M code is not collected if it is not assigned to an auxiliary function group. With active magazine management, this corresponds to MD value = 0.  
 Note 2:  
 Value = 0 is appropriate if, for example, after reaching of the search target, the collected tool change commands are output to the PLC in an ASUB by means of the GETSELT, GETEXET commands.  
 Related to:  
 MD22560 \$MC\_TOOL\_CHANGE\_M\_CODE

20129	CUTMODK_INIT	C08	K1,W1
-	Initialize CUTMODK at POWERON	STRING	PowerOn
-			
-	-	...	-
-			7/2
			M

**Description:** On POWER ON, the name (which can be programmed using the NC command CUTMODK) of a transformation defined by means of kinematic chains is automatically initialized with the value stored in this machine data.

20130	CUTTING_EDGE_RESET_VALUE	C03	-
-	Tool edge with length compens. during runup (reset/end of pp)	DWORD	Reset
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0, 0...	0
-			32000
			7/2
			M

**Description:** Definition of the cutting edge for which tool length compensation is selected during runup or on reset or part program end as a function of MD20110 \$MC\_RESET\_MODE\_MASK, and as a function of MD20112 \$MC\_START\_MODE\_MASK on part program start.

With active tool management and with bit 0 and bit 6 set in MD20110 \$MC\_RESET\_MODE\_MASK at selection, the last offset of the tool active at power OFF - as a rule the tool on the spindle - is effective after runup.

Related to:

MD20110 \$MC\_RESET\_MODE\_MASK

MD20112 \$MC\_START\_MODE\_MASK

20132	SUMCORR_RESET_VALUE	C03	-
-	Effective resulting offset on RESET	DWORD	Reset
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0, 0...	0
-			6
			7/2
			M

**Description:** Definition of the total offset with which the tool length compensation is selected in the runup and on reset or part program end as a function of MD20110 \$MC\_RESET\_MODE\_MASK and as a function of MD20112 \$MC\_START\_MODE\_MASK on part program start.

MD18110 \$MN\_MM\_MAX\_SUMCORR\_PER\_CUTTEDGE determines the maximum useful value which can be entered.

20140	TRAFO_RESET_VALUE	C03	F2,TE4,M1
-	Transformation data block selected during runup (reset/pp end)	BYTE	Reset
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0, 0...	0
-			20
			7/2
			M

**Description:** Definition of the transformation data block which is selected during runup and on reset or part program end as a function of MD20110 \$MC\_RESET\_MODE\_MASK, and as a function of MD20112 \$MC\_START\_MODE\_MASK on part program start.

Related to:

MD20110 \$MC\_RESET\_MODE\_MASK

MD20112 \$MC\_START\_MODE\_MASK

20142	TRAFO_RESET_NAME			C03	K1	
-	Transformation during power up (reset/part program end )			STRING	Reset	
-						
-	-	...	-	-	7/2	M

**Description:** Specifies the name of a transformation (\$NT\_NAME[n]) defined with the aid of kinematic chains, which is selected during power on or on reset/part program end as a function of MD 20110: \$MC\_RESET\_MODE\_MASK and, on part program start, as a function of MD 20112: \$MC\_START\_MODE\_MASK.

If this machine data is not empty, machine data MD20140 \$MC\_TRAFO\_RESET\_VALUE is ignored. This means that MD20142 \$MC\_TRAFO\_RESET\_NAME has priority over MD20140 \$MC\_TRAFO\_RESET\_VALUE.

Not relevant:  
MD20110 \$MC\_RESET\_MODE\_MASK, bit 0 = 0

20144	TRAFO_MODE_MASK			C07	M1	
-	Function selection of kinematic transformation			BYTE	Reset	
-						
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0	0x03	7/2	M

**Description:** The specific functionality of the kinematic transformation is selected by setting the following bits:

Bit 0 = 0:  
Default behavior.

Bit 0 = 1:  
The transformation as defined in MD20140 \$MC\_TRAFO\_RESET\_VALUE is persistent. That is, it is also selected with TRAFOOF and not shown in the display. This requires that the transformation defined in MD20140 \$MC\_TRAFO\_RESET\_VALUE is selected automatically after RESET and START via MD20110 \$MC\_RESET\_MODE\_MASK and MD20112 \$MC\_START\_MODE\_MASK. This means that:  
MD20110 \$MC\_RESET\_MODE\_MASK bit 0 = 1 and bit 7 = 0,  
MD20112 \$MC\_START\_MODE\_MASK bit 7 = 1  
MD20118 \$MC\_GEOAX\_CHANGE\_RESET = TRUE

Bit 1 = 0:  
Default behavior.

Bit 1 = 1:  
The last active transformation is selected again after control power on.  
MD20110 \$MC\_RESET\_MODE\_MASK Bit 0 = 1 and Bit 7 = 1 also have to be set.

20147	ZERO_CHAIN_ELEM_NAME			EXP, N01	K1	
-	Name of the kinematic chain element for defining the machine zero point			STRING	Reset	
-						
-	-	...	-	-	7/2	M

**Description:** Specifies the name of a kinematic chain element that defines the machine zero point. This zero point is required, for example, to specify the position of a workpiece defined by the language command WORKPIECE, if its position is not specified relative to a kinematic chain in the language command itself.

20150	GCODE_RESET_VALUES			C11, C03	F2,TE4,K3,M1,M5,K1,K2,P1, V1	
-	Initial setting of G groups			BYTE	Reset	
-						
-	70	2, 0, 0, 1, 0, 1, 1, 1, 0, 1, 0, 1, 2, 1, 2, 1, 1, 1, 1, 1...	-	-	7/2	M

**Description:** Definition of the G codes, which are active when powering up and reset and/or end of part program depending on MD20110 \$MC\_RESET\_MODE\_MASK (up to SW 4) and MD20152 \$MC\_GCODE\_RESET\_MODE (from SW 5) and for the start of part program depending on MD20112 \$MC\_START\_MODE\_MASK.

The index of the G codes in the respective groups must be programmed as the default value.

For a list of the G groups and their G functions, please refer to References: Programming Manual, Fundamentals

Designation Group Standard value for 840D

GCODE_RESET_VALUES[0]	12 (G1)
GCODE_RESET_VALUES[1]	20 (inactive)
GCODE_RESET_VALUES[2]	30 (inactive)
GCODE_RESET_VALUES[3]	42 (STARTFIFO)
GCODE_RESET_VALUES[4]	50 (inactive)
GCODE_RESET_VALUES[5]	61 (G17)
GCODE_RESET_VALUES[6]	71 (G40)
GCODE_RESET_VALUES[7]	81 (G500)
GCODE_RESET_VALUES[8]	90 (inactive)
GCODE_RESET_VALUES[9]	101 (G60)
GCODE_RESET_VALUES[10]	110 (inactive)
GCODE_RESET_VALUES[11]	121 (G601)
GCODE_RESET_VALUES[12]	132 (G71)
GCODE_RESET_VALUES[13]	141 (G90)
GCODE_RESET_VALUES[14]	151 (G94)
GCODE_RESET_VALUES[15]	161 (CFC)
GCODE_RESET_VALUES[16]	171 (NORM)
GCODE_RESET_VALUES[17]	181 (G450)
GCODE_RESET_VALUES[18]	191 (BNAT)
GCODE_RESET_VALUES[19]	201 (ENAT)
GCODE_RESET_VALUES[20]	211 (BRISK)
GCODE_RESET_VALUES[21]	221 (CUT2D)
GCODE_RESET_VALUES[22]	231 (CDOF)
GCODE_RESET_VALUES[23]	241 (FFWOF)
GCODE_RESET_VALUES[24]	251 (ORIWKS)
GCODE_RESET_VALUES[25]	262 (RMI)
GCODE_RESET_VALUES[26]	271 (ORIC)
GCODE_RESET_VALUES[27]	281 (WALIMON)
GCODE_RESET_VALUES[28]	291 (DIAMOF)
GCODE_RESET_VALUES[29]	301 (COMPOF)
GCODE_RESET_VALUES[30]	311 (inaktiv)
GCODE_RESET_VALUES[31]	321 (inactive)
GCODE_RESET_VALUES[32]	331 (FTOCOF)

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```

GCODE_RESET_VALUES [33] 341 (OSOF)
GCODE_RESET_VALUES [34] 351 (SPOF)
GCODE_RESET_VALUES [35] 361 (PDELAYON)
GCODE_RESET_VALUES [36] 371 (FNORM)
GCODE_RESET_VALUES [37] 381 (SPIF1)
GCODE_RESET_VALUES [38] 391 (CPRECOF)
GCODE_RESET_VALUES [39] 401 (CUTCNOF)
GCODE_RESET_VALUES [40] 411 (LFOF)
GCODE_RESET_VALUES [41] 421 (TCOABS)
GCODE_RESET_VALUES [42] 431 (G140)
GCODE_RESET_VALUES [43] 441 (G340)
GCODE_RESET_VALUES [44] 451 (SPATH)
GCODE_RESET_VALUES [45] 461 (LFTXT)
GCODE_RESET_VALUES [46] 471 (G290 SINUMERIK mode)
GCODE_RESET_VALUES [47] 483 (G462)
GCODE_RESET_VALUES [48] 491 (CP)
GCODE_RESET_VALUES [49] 501 (ORIEULER)
GCODE_RESET_VALUES [50] 511 (ORIVECT)
GCODE_RESET_VALUES [51] 521 (PAROTOF)
GCODE_RESET_VALUES [52] 531 (TOROTOF)
GCODE_RESET_VALUES [53] 541 (ORIROTA)
GCODE_RESET_VALUES [54] 551 (RTLION)
GCODE_RESET_VALUES [55] 561 (TOWSTD)
GCODE_RESET_VALUES [56] 571 (FENDNORM)
GCODE_RESET_VALUES [57] 581 (RELIEVEON)
GCODE_RESET_VALUES [58] 591 (DYNNORM)
GCODE_RESET_VALUES [59] 601 (WALCS0)
GCODE_RESET_VALUES [60] 611 (ORISOF)
GCODE_RESET_VALUES [61] 621 (inactive)
GCODE_RESET_VALUES [62] 631 (inactive)
:      ::
GCODE_RESET_VALUES [69] 701 (not defined)
    
```

20152	GCODE_RESET_MODE			C03	M1,K1,K2,P1	
-	Reset response of G groups			BYTE	Reset	
-						
-	70	0, 0...	0	1	7/2	M

**Description:** This MD is only evaluated if bit 0 is set in MD20110 \$MC\_RESET\_MODE\_MASK. For each entry in MD20150 \$MC\_GCODE\_RESET\_VALUES (that is for each G group), this MD is used to determine whether, on reset/part program end, the setting in MD20150 \$MC\_GCODE\_RESET\_VALUES is used again (MD = 0) or the current setting is retained (MD = 1).

Example:

Here, the basic setting for the 6th G group (current plane) is read from MD20150 \$MC\_GCODE\_RESET\_VALUES at each reset / part program end:

```

$MC_GCODE_RESET_VALUES[5]=1 ; reset value of the 6th G group is G17
$MC_GCODE_RESET_MODE[5]=0 ; basic setting for 6th G group corresponds, after ;reset / part program end
    
```



```
;to MD20150 $MC_GCODE_RESET_VALUES[5]
```

However, if the current setting for the 6th G group (current plane) is to be retained after reset / part program end, then the following setting results:

```
$MC_GCODE_RESET_VALUES[5]=1 ; reset value of the 6th G group is M17
```

```
$MC_GCODE_RESET_MODE[5]=1 ; current setting for 6th G group
```

;is retained even after reset / part program end.

Related to:

```
MD20110 $MC_RESET_MODE_MASK
```

```
MD20112 $MC_START_MODE_MASK
```

20154	EXTERN_GCODE_RESET_VALUES			C11, C03	-	
-	Initial setting of G groups in ISO mode			BYTE	Reset	
-						
-	31	1, 1, 1, 2, 1, 1, 1, 3, 4, 1, 1, 2, 2, 1, 3, 2, 1, 0, 1, 1, 1...	-	-	2/2	M

**Description:** When an external NC programming language is used, the G codes which become active on runup and reset or at part program end are defined as a function of MD20110 \$MC\_RESET\_MODE\_MASK and at part program start as a function of MD20112 \$MC\_START\_MODE\_MASK.

The following external programming languages are possible:

ISO2 dialect Milling

ISO3 dialect Turning

The G group division that is to be used is stated in the current SINUMERIK documentation.

The following groups within MD20154 \$MC\_EXTERN\_GCODE\_RESET\_VALUES can be written:

ISO2 dialect M:

G group 2: G17/G18/G19

G group 3: G90/G91

G group 5: G94/G95

G group 6: G20/G21

G group 13: G96/G97

G group 14: G54-G59

ISO3 dialect T:

G group 2: G96/G97

G group 3: G90/G91

G group 5: G94/G95

G group 6: G20/G21

G group 16: G17/G18/G19

20156	EXTERN_GCODE_RESET_MODE			C03	-	
-	Reset response of external G groups			BYTE	Reset	
-						
-	31	0, 0...	0	1	7/2	M

**Description:** This MD is evaluated only if bit0 is set in MD20110 \$MC\_RESET\_MODE\_MASK (see there).

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For each entry in MD20154 \$MC\_EXTERN\_GCODE\_RESET\_VALUES (that is for each G group), this MD is used to determine whether, on reset/part program end, the setting in MD20154 \$MC\_EXTERN\_GCODE\_RESET\_VALUES is used again (MD = 0) or the current setting is retained (MD = 1).

Example for ISO dialect M:

Here, the basic setting for the 14th G group (settable work offset) is read from MD20154 \$MC\_EXTERN\_GCODE\_RESET\_VALUES at each reset / part program end:

```
MD20154 $MC_EXTERN_GCODE_RESET_VALUES[13]=1
; the reset value for the 14th G group
;is G54 MD20156 $MC_EXTERN_GCODE_RESET_MODE[13]=0 ; the basic setting for the
14th G group
;after reset / part program end is defined by
;MD20154 $MC_EXTERN_GCODE_RESET_VALUES[13]
;However, if the current setting for the 14th G group is to be retained
beyond reset / part program end, this results in the following setting:
MD20154 $MC_EXTERN_GCODE_RESET_VALUES[13]=1
;reset value for the 14th G group
;is G54 MD20156 $MC_EXTERN_GCODE_RESET_MODE[13]=1 ;current setting for the
14th
;G group is retained even after
;reset / part program end
```

20160	CUBIC_SPLINE_BLOCKS	EXP, C09	-			
-	Number of blocks for C spline	BYTE	PowerOn			
-						
-	-	8, 8, 8, 8, 8, 8, 8, 8...	4	9	7/2	M

**Description:** Number of motion blocks across which a spline section is calculated with the cubic spline (CSPLINE) function.  
 The larger the value, the closer the generated contour is to the ideal mathematical cubic spline, which in the boundary condition CUBIC\_SPLINE\_BLOCKS = reaches infinity.  
 However, the higher the value, the longer the block search calculation time.  
 References:  
 /PA/, Programming Guide: Fundamentals

20170	COMPRESS_BLOCK_PATH_LIMIT	C09	B1			
mm	Maximum traversing distance of an NC block with compression	DOUBLE	NEW CONF			
-						
-	-	1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0...	-	-	7/2	M

**Description:** The machine data defines the maximum traversing length of a block that can be compressed. Longer blocks interrupt the compression and are traversed in the normal way.  
 Related to:  
 MD33100 \$MA\_COMPRESS\_POS\_TOL (maximum deviation with compression)  
 References:  
 /PA/, Programming Guide: Fundamentals

20172	COMPRESS_VELO_TOL		C09	B1,V1		
mm/min	Max. permissible deviation of path feedrate with compression		DOUBLE	PowerOn		
-						
-	-	60000.0, 60000.0, 60000.0, 60000.0...	-	-	7/2	M

**Description:** The value indicates the maximum permissible deviation for the compression for the path feedrate. The larger the value, the more short blocks can be compressed into one long block. The maximum number of compressible blocks is limited by the size of the spline buffer.

In this way, the the compressors COMPON and COMPCURV may limit the compression of the path axes.

Compressor COMPCAD acts differently: It ignores changes to the F word as long as they lie below the threshold defined by COMPRESS\_VELO\_TOL. If the feed programmed in a block changes more than COMPRESS\_VELO\_TOL, COMPCAD interrupts the compression at this block transition so that the feed change takes place at exactly the desired position.

Related to:

MD33100 \$MA\_COMPRESS\_POS\_TOL[AXn]

MD20170 \$MC\_COMPRESS\_BLOCK\_PATH\_LIMIT

References:

/PGA/, Programming Guide, Advanced

20180	TOCARR_ROT_ANGLE_INCR		C08	W1		
-	Rotary axis increment of orientable tool holder		DOUBLE	NEW CONF		
-						
-	2	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/3	M

**Description:** For orientable tool carriers, this machine data defines the size of the minimum increment (in degrees) by which the first or second orientation axis can be changed (e.g. for Hirth tooth systems).

A programmed or calculated angle is rounded to the nearest value resulting from

$$\text{phi} = \text{s} + \text{n} * \text{d}$$

with integer n.

In which:

s = MD20180 \$MC\_TOCARR\_ROT\_ANGLE\_INCR[i]

d = MD20182 \$MC\_TOCARR\_ROT\_ANGLE\_OFFSET[i]

and i is 0 for the 1st and 1 for the 2nd axis.

There is no rounding if this machine data is equal to zero.

20182	TOCARR_ROT_ANGLE_OFFSET		C08	-		
-	Rotary axis offset of orientable tool holder		DOUBLE	NEW CONF		
-						
-	2	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/3	M

**Description:** This machine data defines the offset of the rotary axis for an orientable tool holder if its position cannot be continuously changed.

It is only evaluated if MD20180 \$MC\_TOCARR\_ROT\_ANGLE\_INCR is not equal to zero.

For the precise meaning of this machine data, see the description of MD20180 \$MC\_TOCARR\_ROT\_ANGLE\_INCR.

20184	TOCARR_BASE_FRAME_NUMBER	C08	K2,W1
-	Base frame number for holding machine table offset	DWORD	NEW CONF
-			
-	-	-1, -1, -1, -1, -1, -1, -1, -1 -1...	15 7/3 M

**Description:** This machine data indicates into which channel-specific base frame the table offset of an orientable tool holder with a rotary table is written.  
This machine data must refer to a valid base frame.  
If its content is less than 0 or greater than or equal to the maximum number of base frames set in MD28081 \$MC\_MM\_NUM\_BASE\_FRAMES, selection of a corresponding tool holder causes an alarm.

20188	TOCARR_FINE_LIM_LIN	C07	W1
mm	Limit of linear fine offset TCARR	DOUBLE	Immediately
-			
-	-	1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0...	7/3 M

**Description:** Indicates for each channel the input limit for the linear fine offset values of an orientable tool holder.

20190	TOCARR_FINE_LIM_ROT	C07	W1
degrees	Limit of rotary fine offset TCARR	DOUBLE	Immediately
-			
-	-	1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0...	7/3 M

**Description:** Indicates for each channel the input limit for the rotary fine offset values of an orientable tool holder.

20191	IGN_PROG_STATE_ASUP	EXP	K1
-	Do not display interrupt program execution on OPI	DWORD	NEW CONF
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	7/2 M

**Description:** If the ASUB is started, OPI variables progStatus and chanStatus do not change, i.e. the HMI does not see this normally short program execution.  
Bit 0 is assigned to interrupt channel 1.  
Bit 1 is assigned to interrupt channel 2, etc.  
Korrespondiert mit:  
MD20192 \$MC\_PROG\_EVENT\_IGN\_PROG\_STATE

20192	PROG_EVENT_IGN_PROG_STATE	EXP	-
-	Do not display the Prog-Event on OPI	DWORD	NEW CONF
-			
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0 0x3F 7/2 M

**Description:** Event-driven program calls (Prog-Events) can be set regarding their response on the OPI.

The progStatus and chanStatus variables remain unaffected despite Prog-Event processing being active and retain the old value. This provides a means of concealing Prog-Event processing from the HMI.

Bit 0 = 1 :

Reserved bit, ineffective

Bit 1 = 1 :

Prog-Event after end-of-part-program does not change progStatus and chanStatus

Bit 2 = 1 :

Prog-Event after OP reset does not change progStatus and chanStatus

Bit 3 = 1 :

Prog-Event after ramp-up does not change progStatus and chanStatus

Bit 4 = 1 :

Reserved

Bit 5 = 1 :

Safety-Prog-Event during ramp-up does not change progStatus and chanStatus

Corresponds to:

MD20105 \$MC\_PROG\_EVENT\_IGN\_REFP\_LOCK

MD20106 \$MC\_PROG\_EVENT\_IGN\_SINGLEBLOCK

MD20107 \$MC\_PROG\_EVENT\_IGN\_INHIBIT

MD20108 \$MC\_PROG\_EVENT\_MASK

MD20193 \$MC\_PROG\_EVENT\_IGN\_STOP

20193	PROG_EVENT_IGN_STOP			EXP	-	
-	Prog-Events ignore the stop key			DWORD	NEW CONF	
-						
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0	0xF	7/2	M

**Description:** Event-controlled program calls (Prog-Events) can be influenced with regard to their behavior after pressing of the stop key.

The Stop, StopAll and StopAtEnd key of the PLC is ignored, if required.

Bit 0 = 1 :

Prog-Event after part program start delays the stop until the part program starts, i.e. the stop only becomes active in the part program, not before its start. If the part program starts with a traversing block, it is possible that it starts briefly, i.e. a short motion occurs, although Stop has already been pressed in the Start-Prog-Event.

Bit 1 = 1 :

Prog-Event after part program end ignores the stop

Bit 2 = 1 :

Prog-Event after operator panel reset ignores the stop

Bit 3 = 1 :

Prog-Event after power up ignores the stop

Corresponds to:

MD20105 \$MC\_PROG\_EVENT\_IGN\_REFP\_LOCK

MD20106 \$MC\_PROG\_EVENT\_IGN\_SINGLEBLOCK

MD20107 \$MC\_PROG\_EVENT\_IGN\_INHIBIT

MD20108 \$MC\_PROG\_EVENT\_MASK

MD20192 \$MC\_PROG\_EVENT\_IGN\_PROG\_STATE

20196	TOCARR_ROTAX_MODE			C07	W1	
-	ToolCarrier: rotary axis setting with axis positions not defined			DWORD	Immediately	
-						
-	-	2, 2, 2, 2, 2, 2, 2...	0	3	7/3	M

**Description:** The MD is bit-coded. Bit 0 applies to orientable tool holders with one axis, bit 1 for those with 2 axes.

When the axis positions of an orientable tool holder are determined from a specified frame, it might happen that the required orientation is achieved at any position of a rotary axis.

This MD specifies how the rotary axis position is defined in these cases:

If the relevant bit is 0, the position of the rotary axis will be 0; a possibly necessary rotation is performed through the specified frame.

If the relevant bit is 1, the rotation is performed by means of the rotary axis of the orientable tool holder. The resulting frame will no longer include a rotation.

Example:

A tool in its basic position points into the Z direction, and an axis of the orientable tool holder rotates the workpiece around Z (C\_Axis). If the tool shall be oriented in parallel with the Z axis of a rotating frame, and if the frame only rotates around the Z axis, the tool orientation will not be changed, if the C axis is rotated. The condition saying that the tool is to point in the direction of the Z axis defined by the frame is therefore fulfilled for any position of the Z axis.

20200	CHFRND_MAXNUM_DUMMY_BLOCKS			EXP, C02, C06, C09	V1	
-	Empty blocks with chamfer/radii			BYTE	PowerOn	
-						
-	-	3, 3, 3, 3, 3, 3, 3...	0	15	7/2	M

**Description:** Indicates the maximum number of blocks without traversing information in the compensation plane (dummy blocks) that can be programmed between two blocks with traversing information when chamfer/rounding are active.

20201	CHFRND_MODE_MASK			C09	V1	
-	Chamfer/rounding behavior			DWORD	Reset	
-						
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0	0xFFFF	7/2	M

**Description:** Determination of the chamfer/rounding behavior  
 Bit 0: (LSB) Assignment of the chamfer/rounding to the preceding or following block.

This influences:

- The technology of the chamfer/rounding (feed, type of feed, M commands ...)
- The execution of the blocks without movement in the active plane (e.g. M commands, movement in the applicate) before or after a modal rounding (RNDM)

Bit 1: free

Meaning of the individual bits:

Bit 0 = 0

Chamfer/rounding is derived from the following block (default value).

The technology of the chamfer/rounding is determined by the following block. Blocks without movement (M commands) or movement only in the applicate between two movement blocks in the plane are executed before the modal rounding.

Bit 0 = 1:

Chamfer/rounding is derived from the preceding block.

The technology of the chamfer/rounding is determined by the preceding block. Blocks without movement (M commands) or movement only in the applicate between two movement blocks in the plane are executed after the modal rounding.

20202	WAB_MAXNUM_DUMMY_BLOCKS			C02, C06	W1	
-	maximum number of blocks w/o traversing movement with SAR			BYTE	Reset	
-						
-	-	5, 5, 5, 5, 5, 5, 5, 5...	0	10	7/2	M

**Description:** Maximum number of blocks which can appear between the SAR (soft approach and retraction) block and the traversing block which determines the direction of the approach or retraction tangent.

20204	WAB_CLEARANCE_TOLERANCE			C06	W1	
mm	Change of direction with SAR			DOUBLE	PowerOn	
-						
-	-	0.01, 0.01, 0.01, 0.01, 0.01, 0.01, 0.01...	-	-	7/2	M

**Description:** In the case of smooth approach and retraction, the point defined with DISCL, from which, in the case of infeed from the initial plane, traversing is carried out at lower speed (G341) or the point in which the actual approach movement begins (G 340), must lie between the initial plane and the approach plane.

If this point lies outside this interval and the deviation is less than or equal to this machine data, it is assumed that the point lies in the approach or retraction plane.

If the deviation is greater, then alarm 10741 is output.

Example:

An approach is made from position Z = 20. The SAR plane is at Z = 0. The point defined by DISCL must therefore lie between these two values. If it lies between 20.000 and 20.010 or between 0 and -0.010, it is assumed that the value 20.0 or 0.0 was programmed (under the condition that the MD has the value 0.010). The alarm is output if the position is greater than 20.010 or less than -0.010.

20210	CUTCOM_CORNER_LIMIT			C08, C06	W1	
degrees	Maximum angle f. compensation blocks in tool radius compensation			DOUBLE	Reset	
-						
-	-	100., 100., 100., 100., 100., 100., 100...	0.0	150.	7/2	M

**Description:** Where outer corners are very pointed, G451 can result in long idle paths. The system therefore switches automatically from G451 (intersection) to G450 (transition circle, with DISC where appropriate) when the outer corners are very pointed. The contour angle which can be traversed following this automatic switchover (intersection ---> transition circle) can be defined in CUTCOM\_CORNER\_LIMIT.

20220	CUTCOM_MAX_DISC			C08, C06	W1	
-	Maximum value for DISC			DOUBLE	Reset	
-						
-	-	50.0, 50.0, 50.0, 50.0, 50.0, 50.0, 50.0...	0.0	75.0	7/2	M

**Description:** The G450 transition circle cannot produce sharp outer contour corners, because the path of the tool center point through the transition circle is controlled so that the cutting edge stops at the outer corner (programmed position).

Where sharp outer corners are to be machined with G450, the DISC instruction can be used in the program to program an overshoot. This transforms the transition circle into a conic section and the cutting edge lifts off from the outer corner.

The value range of the DISC instruction extends from 0 to theoretically 100 in steps of 1.

DISC = 0 ...Overshoot disabled, transition circle active  
DISC = 100 ...Overshoot large enough to theoretically produce a response similar to intersection (G451).

Programmed values of DISC which are higher than those stored in CUTCOM\_MAX\_DISC are limited to this maximum value without output of a message. A severely non-linear alteration in the path speed can thus be avoided.

Special cases:  
It is not generally meaningful to enter values higher than 50 in DISC.  
It is therefore not possible to enter values > 75.

20230	CUTCOM_CURVE_INSERT_LIMIT			C08, C06	W1	
-	Maximum angle for calculation of intersection with TRC			DOUBLE	Reset	
-						
-	-	10., 10., 10., 10., 10., 10., 10., 10....	0.0	150.	7/2	M

**Description:** Where outer corners are very flat, G450 (transition circle) and G451 (intersection) approximate each other more and more. In such a case, it is no longer useful to insert a transition circle. Especially with 5-axis machining, it is not allowed to insert a transition circle at these outer corners, as this might lead to losses in velocity during continuous-path mode (G64). That is why the system switches automatically from G450 (transition circle, possibly with DISC) to G451 (intersection) in the case of very flat outer corners. The contour angle (in degrees), as of which the automatic switchover (transition circle ---> intersection) is to be carried out, can be specified in CUTCOM\_CURVE\_INSERT\_LIMIT.

20240	CUTCOM_MAXNUM_CHECK_BLOCKS			C08, C02	W1	
-	Blocks for look-ahead contour calculation with TRC			DWORD	PowerOn	
-						
-	-	4, 4, 4, 4, 4, 4, 4, 4...	2	10000	7/2	M

**Description:** Indicates the maximum number of blocks with traversing information at the offset plane that are considered simultaneously for collision detection with active radius compensation.



20250	CUTCOM_MAXNUM_DUMMY_BLOCKS	C08, C02	W1
-	maximum number of blocks without traversing motion in TRC	DWORD	PowerOn
-			
-	-	3, 3, 3, 3, 3, 3, 3, 3...	0
		1000	7/2
			M

**Description:** During active TRC only program blocks with movements of geometry axes perpendicular to the current tool orientation are normally programmed. Nevertheless, individual intermediate blocks that do not contain such path information may also be programmed during active TRC. For example:

- Movements in the direction of tool orientation
- Movements in axes that are not geometry axes
- Auxiliary functions
- In general: Blocks that are taken over into the main run and executed there

The maximum number of intermediate blocks is defined with this MD. If the value is exceeded, alarm 10762 "Too many empty blocks between 2 traversing blocks during active tool radius compensation" is output.

Note:

Comment blocks, arithmetic blocks and empty blocks are not intermediate blocks in the sense of this MD and can therefore be programmed in any number (without an alarm being triggered).

20252	CUTCOM_MAXNUM_SUPPR_BLOCKS	EXP, C01, C08, C02	W1
-	Maximum number of blocks with compensation suppression	DWORD	PowerOn
-			
-	-	5, 5, 5, 5, 5, 5, 5, 5...	0
		1000	7/2
			M

**Description:** Indicates the maximum number of blocks for active tool radius compensation, in which the function "Keep radius offset constant" (CUTCONON or reprogramming of G41 / G42 during active TRC) may be active.

Note:

The restriction of the number of blocks with active CUTONON is necessary in order to carry out repositioning in this situation too. Increasing this value for the machine data can lead to an increased memory requirement for NC blocks.

20254	ONLINE_CUTCOM_ENABLE	EXP, C01, C08	-
-	Real-time tool radius compensation enabled	BOOLEAN	PowerOn
-			
-	-	FALSE, FALSE, FALSE, FALSE, FALSE...	-
			7/2
			M

**Description:** This data enables online tool radius compensation. When the function is enabled, the control reserves the necessary memory space required for online tool radius compensation after POWER ON.

ONLINE\_CUTCOM\_ENABLE = 0:

Online tool radius compensation can be used

ONLINE\_CUTCOM\_ENABLE = 1:

Online tool radius compensation cannot be used

20256	CUTCOM_INTERS_POLY_ENABLE			C09	W1	
-	Intersection procedure for polynomials is possible			BOOLEAN	PowerOn	
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/2	M

**Description:** If this machine data is TRUE and tool radius compensation active, the transitions at outer corners where polynomes (splines) are involved can be treated with the intersection mode. If the machine data is FALSE, conic sections (circles) are always inserted in this case.

If the machine data is FALSE, the response is identical to that of software releases older than 4.0.

20260	PATH_IPO_IS_ON_TCP			EXP, C09, C05	-	
-	Velocity control with spline			BOOLEAN	PowerOn	
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	0/0	M

**Description:** For SW-internal function optimization.

20262	SPLINE_FEED_PRECISION			EXP, C09, C05	-	
-	Permissible rel. error of path velocity for spline			DOUBLE	PowerOn	
-						
-	-	0.001, 0.001, 0.001, 0.001, 0.001, 0.001...	0.000001	1.0	7/2	M

**Description:** This machine data is evaluated only if MD28540 \$MC\_MM\_ARCLENGTH\_SEGMENTS is greater than 0.

The factor indicates how large the relative error of the path velocity may be for splines, compressor and polynomial interpolation. The smaller the factor the more computing time is required for preprocessing.

Furthermore, more memory is required to display the arc length function (see 28540 \$MC\_MM\_ARCLENGTH\_SEGMENTS).

Example:  
SPLINE\_FEED\_PRECISION=0.1, programmed path velocity=1000 mm/min.

The actual path velocity for polynomial and spline interpolations may then vary within the range between 900 and 1100 mm/min.

20270	CUTTING_EDGE_DEFAULT			C11, C03	H2,W1	
-	Initial position of tool cutting edge without programming			DWORD	PowerOn	
-						
-	-	1, 1, 1, 1, 1, 1, 1, 1...	-2	32000	7/2	M

**Description:** Default cutting edge after tool change

If no cutting edge has been programmed after a tool change, the default cutting edge number set in MD20270 \$MC\_CUTTING\_EDGE\_DEFAULT is used.

Value  
:= 0

Initially, no cutting edge is active after a tool change.

The cutting edge is not selected until D programming.

```

:= 1
MD_SLMAXCUTTINGEDGENUMBER
No. of cutting edge (MD_SLMAXCUTTINGEDGENUMBER=9 is valid up to P4)
:= -1
Cutting edge number of old tool also applies to new tool.
:= -2
Cutting edge (correction) of old tool remains active until D is programmed.
This means that the old tool remains the active tool until D is programmed.
In other words, the tool on the spindle remains the programmed tool until D
is programmed.
Example:
MD20270 $MC_CUTTING_EDGE_DEFAULT = 1;
After a tool change, the first cutting edge is active if no other cutting
edge has been programmed.

```

20272	SUMCORR_DEFAULT	C03	H2,W1			
-	Initial position resulting offset without program	DWORD	PowerOn			
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0, 0...	-1	6	7/2	M

**Description:** The number of the total offset of the cutting edge which becomes active when a new cutting edge compensation is activated without a programmed DL value being available.

```

MD18110 $MN_MM_MAX_SUMCORR_PER_CUTTEDGE
defines the maximum useful value which can be entered.

```

Value Meaning

> 0 Number of the total offset

= 0 No total offset active with D programming

= 1 The total offset number for the previously programmed D is used.

Related to:

```

MD20270 $MC_CUTTING_EDGE_DEFAULT.

```

20280	LIMIT_CHECK_MODE	EXP	-			
-	Type of limit position check	DWORD	Reset			
-						
-	-	1, 1, 1, 1, 1, 1, 1, 1, 1...	0	1	1/1	M

**Description:** This MD can be used to set the mode of operation for the software limit position check.

The following options are available:

0: The limit positions are checked in real time on active transformation

1: The limit positions are checked in a preparative manner on active transformation

20310	TOOL_MANAGEMENT_MASK	C09	P3 pl,P3 sl			
-	Activation of tool management functions	DWORD	PowerOn			
-						
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0	0xFFFFFFFF	7/2	M

**Description:** MD = 0: Tool management inactive  
Bit 0 to bit4  
Bit 0=1: Tool management active

Tool management functions are enabled for the current channel.

Bit 1=1: Tool monitoring function active  
The functions for monitoring the tools (tool life and quantity) are enabled.

Bit 2=1: OEM functions active  
The memory for user data can be used (see also MD18090 \$MN\_MM\_NUM\_CC\_MAGAZINE\_PARAM to MD18098 \$MN\_MM\_NUM\_CC\_MON\_PARAM)

Bit 3=1: Consider adjacent location active  
Bit 0 to bit 3 must be set as in MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK.

Bit 4=1: The PLC has the option of requesting a T preparation again with changed parameters.  
The acknowledgment states "2", "7" und "103" are enabled with this bit. The tool selection is then recalculated in the NCK.

Bit 5 to bit 8  
Bit 5 and bit 7 refer to the main spindle  
Bit 6 und bit 8 refer to secondary spindles

Bit 5 = 1: The command is regarded as output when the internal transport acknowledgment + the transport acknowledgment are present, that is, when the command has been accepted by the basic PLC program.  
(Bit 19=1 also allows the block change to be prevented (main run) until the required acknowledgments have been received.)

Bit 7 = 1: The output of the command is not regarded as being completed until the end acknowledgment has been received from the PLC. That is, the command has been acknowledged by the PLC user program with status "1".  
(Bit 19=1 also allows the block change to be prevented (main run) until the required acknowledgments have been received.)

Bit 5 and bit 7 (alternatively bit 6 and bit 8) are mutually exclusive.  
Only the following combinations are permissible:

Bit 5: ...0...1...0  
Bit 7: ...0...0...1

With the default setting, that is bits 5 to 8 = 0, synchronisation takes place in the block in which a cutting edge is selected for the first time. Setting these bits delays the block processing.

Bit 9 to bit 11  
Bit 9: Reserved for test purposes  
It can also be used by machine manufacturers during the test phase, provided that the PLC program does not yet control the tool change.

Bit 10=1: M06 is delayed until the preparation has been accepted by the PLC user program.  
The change command is not output until the preparation acknowledgment has been received. That can be, for example, status "1" or "105".

Bit 10=0: The change command is output without delay, directly after the preparation command.

Bit 11=1: The tool preparation command (PLC command numbers=2, 4, 5) is also executed if the same tool preparation command has already been executed. (Commands 4, 5 contain the tool preparation)

Example: (Tool changed with M6 (PLC command no.= 3):  
T="Tool1"; tool preparation  
M6; tool change  
T="Tool2" ; 1st tool preparation after M6 (for same tool holder)  
; is always output to PLC.

T="Tool2"; 2nd tool preparation is only output as a command to the PLC if bit 11 = 1.

; This tool preparation counts as the first if the state of the tool has changed since the previous tool preparation such that it would no longer be serviceable.

That might be, for example, an asynchronous unloading of the tool. This tool preparation then attempts to select a replacement tool.

Bit 11=0: The preparation command can only be output once for any one tool.

Bit 12 to bit 14

Bit 12=1: The preparation command (PLC command numbers = 2, 4, 5) is also executed when the tool is already in the spindle/tool holder.

T="Tool1" ; tool preparation

M6; tool change

T="Tool1"; tool is already in the tool holder

; 1st tool preparation after M6 (for the same tool holder)

; is only output to the PLC if bit 12 = 1.

; An unserviceable tool (e.g. disabled because of tool monitoring.) on the tool holder does not count as being on the tool holder. This tool preparation then attempts to select a replacement tool.

T="Tool2" ; 2nd tool preparation - the rules of bit 11 apply to the output.

Bit 12=0: The preparation command is not executed if the tool is already in the spindle.

Bit 13=1: On reset, the commands are retrieved from the diagnostics buffer and stored in the passive file system (TCTRAXx.MPF under part program) This file is required by the Hotline.

The tool sequences are only recorded in the the diagnostics buffers of systems that have adequate memory (NCU572, NCU573)).

Bit 14=1: Reset mode

Tool and offset selection correspond to the settings in MD20110 \$MC\_RESET\_MODE\_MASK and MD20112 \$MC\_START\_MODE\_MASK.

Bit 14=0: No reset mode

Bit 15 to bit 19

Bit 15=1: No return transport of the tool if there are multiple preparation commands (Tx->Tx).

Bit 15=0: Return transport of the tool from any defined buffers.

Bit 16=1: T = location number is active

Bit 16=0: T="Tool name"

Bit 17=1: Tool life decrementation can be started and stopped via the PLC in channel DB 2.1...DBx 1.3.

Bit 18=1: Activation of monitoring of "Last tool in the tool group"

Bit 18 Lengthens the search for a suitable tool, above all, when there are a large number of disabled replacement tools.

Bit 18=0: No monitoring of "Last tool in the tool group"

Bit 19=1: The synchronizations determined by bits 5...8 refer to the main run block. This means that the block change is delayed until the required acknowledgments have been received.

Bit 19, in conjunction with set bits 5, 6, 7, 8, delays block processing.

Bit 19=0: The synchronizations determined by bits 5...8 refer to the tool command output. This means that the block change is not delayed.

Bit 20 to bit 24

Bit 20=0: If the PLC signal "Program test active" is present, then the commands generated are not output to the PLC. The NCK acknowledges the commands itself. The magazine and tool data are not changed.

Bit 20=1: If the PLC signal "Program test active" is present, then the commands generated are output to the PLC. Depending upon the type of acknowledgment, tool/magazine data can be changed in the NCK. If the acknowledgment parameters for the "target magazine" are given the values of the "source magazine", then there is no tool transport, and thus also no data change in the NCK.

Bit 21=0: Default setting: Ignore the tool state "W" during tool selection.

Bit 21=1: Tools in the state "W" cannot be selected by another tool change/tool preparation command.

Bit 22=1: Function "Tool subgroups"

\$TC\_TP11[x] is the grouping or selection parameter

Bit 23=0: Default setting

The tool management selects the tool optimally and safely in the main run. This means that the interpreter may have to wait until the end of the tool selection for the offset selection.

Bit 23=1: For simple applications

The interpreter selects the tool itself. This means synchronization with the main run is not required for the offset selection. (However, an uncorrectable alarm may be issued if a tool becomes unserviceable after selection but before loading.)

Bit 24=0: Default setting

If the PLC commands 8 and 9 (asynchronous transfer) want to move a tool to a location reserved for another tool, then this is rejected with an alarm.

Bit 24=1: If the PLC commands 8 and 9 want to move a tool to a location reserved for another tool with "Reserved for tool from buffer" (bit value="H4"), then this is possible. This location reservation is removed before execution of the motion ("Reserved for new tool to be loaded" (bit value="H8") remains effective).

Related to:

MD18080 \$MN\_MM\_TOOL\_MANAGEMENT\_MASK

MD20320 \$MC\_TOOL\_TIME\_MONITOR\_MASK

MD20122 \$MC\_TOOL\_RESET\_NAME

MD20110 \$MC\_RESET\_MODE\_MASK

MD20124 \$MC\_TOOL\_MANAGEMENT\_TOOLHOLDER

MD22560 \$MC\_TOOL\_CHANGE\_M\_CODE

20320	TOOL_TIME_MONITOR_MASK	C06, C09	-			
-	Time monitoring for tool in tool holder	DWORD	PowerOn			
-						
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	-	-	7/2	M

**Description:** Activation of the tool time monitoring for the tool holders and spindles 1..x.

As soon as the path axes have been traversed (not with G00, always with G63), the tool time monitoring data of the active D compensation are updated for the tool in the selected tool holder, which is also the master tool holder.

Bit 0...x-1: Monitoring of the tool in tool holder 1...x

20350	TOOL_GRIND_AUTO_TMON		C06, C09	-		
-	Activation of tool monitoring. 0/1: Monitoring off/on		BYTE	PowerOn		
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	1	7/2	M

**Description:** This MD is used to define whether tool monitoring is switched on automatically if tool length compensation for a grinding tool with monitoring is selected (odd type number types 401 - 499).  
 TOOL\_GRIND\_AUTO\_TMON = 1 : Automatic monitoring switched on  
 TOOL\_GRIND\_AUTO\_TMON = 0 : Automatic monitoring switched off

20360	TOOL_PARAMETER_DEF_MASK		C09	M5,P1,W1		
-	Definition of tool parameters		DWORD	PowerOn		
-						
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0	0x1FFFFFF	7/2	M

**Description:** Definition of the effects of tool parameters.  
 Bit no. Meaning when bit is set  
 -----  
 -  
 Bit 0: (LSB):  
 For turning and grinding tools, the wear parameter of the transverse axis is included in the calculator as a diameter value.  
 Bit 1:  
 For turning and grinding tools, the tool length component of the transverse axis is included in the calculator as a diameter value.  
 Bit 2:  
 If a wear component or a length component is included in the calculator as a diameter value, the tool may only be used in the plane that was active when the tool was selected. If this bit is set, a plane change leads to an alarm.  
 Bit 3:  
 Work offsets in frames in the transverse axis are included in the calculator as a diameter value.  
 Bit 4:  
 PRESET value is included in the calculator as a diameter value  
 Bit 5:  
 Include the external work offset in the transverse axis in the calculator as a diameter value  
 Bit 6:  
 Read actual values of the transverse axis as diameter values (AA\_IW, AA\_IEN, AA\_IBN, AA\_IB, Notice: however not AA\_IM)  
 Bit 7:  
 Display all actual values of the transverse axis as diameter values, irrespective of the G code of group 29 (DIAMON / DIAMOF)  
 Bit 8:  
 Always display the distance-to-go as a radius in the WCS  
 Bit 9:  
 During DRF handwheel travel of a transverse axis, only half the distance of the specified increment is traveled (on condition that MD11346 \$MN\_HANDWH\_TRUE\_DISTANCE = 1).

Bit10:

Activate the tool component of an active, orientable tool carrier even if no tool is active.

Bit11:

The tool parameter \$TC\_DP6 is not interpreted as a tool radius but as a tool diameter.

Bit12:

The tool parameter \$TC\_DP15 is not interpreted as wear of the tool radius but as wear of the tool diameter.

Bit13:

When jogging circles, the circle center coordinate is always a radius value, see SD42690 \$SC\_JOG\_CIRCLE\_CENTRE.

Bit14:

Absolute values of the transverse axis with cycle masks in the radius

Bit15:

Incremental values of the transverse axis with cycle screen forms as diameter

Bit16:

For GWPS (GWPSON/TMON), the tool parameters tool length, wear and base dimension are interpreted as diameter values

Bit17:

With cutting edge position compensation (CUTMOD) for turning and grinding tools, the cutting plane for calculating the compensation values is rotated into the machining plane. If this bit is not set, the cutting edge is projected into the machining plane instead.

Bit18:

With cutting edge position compensation (CUTMOD) for turning and grinding tools, always use the active plane (G17 - G19). If this bit is not set, the plane specified by setting data \$SC\_TOOL\_LENGTH\_CONST has priority over the plane specified by the G code group 6 (plane selection, G17 - G19).

Bit19:

The tool orientation change caused by an orientable tool carrier becomes effective even if no tool is active. This bit is only effective if Bit 10 is also set.

Bit20:

If this bit is zero, and if the tool parameters \$TC\_DP10 (holder angle) and/or \$TC\_DP24 (clearance angle) contain in the value 0, for the CUTMOD function, to calculate the modified cutting-edge position and the modified cutting direction, the following default values are used as basis:

Holder angle 112.5 degrees for cutting edge positions 1 - 4

Holder angle 67.5 degrees for cutting edge positions 5 - 8

Clearance angle 22.5 degrees for cutting edge positions 1 - 4

Clearance angle 67.5 degrees for cutting edge positions 5 - 8

If this bit is set, then for the specified cases, an alarm is output. This bit is used to establish compatibility with older software releases.



20370	SHAPED_TOOL_TYPE_NO		C01, C08	-		
-	Tool type number for contour tools		DWORD	Immediately		
-						
-	4	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/2	M

**Description:** Indicates for each channel max. two number ranges for tool types that are treated as forming tools. Therefore individual ranges are possible both for grinding and for turning tools.

The first range is specified by the first and the second number, the second range by the third and fourth number.

If the first number is not smaller than the second one (the same applies for the third and fourth number), no range will be defined, but two individual numbers will be specified instead.

The numbers 400 through 599 are permissible (tool type numbers for turning and grinding tools), and also value 0 (no tool type number defined).

Examples:

400 405 590 596 : Tool types 400-405 and 590-596 are contour tools  
410 400 590 596 : tool types 400, 410 and 590-596 are contour tools  
450 0 420 430 : Tool types 450 and 420-430 are contour tools

20372	SHAPED_TOOL_CHECKSUM		C01, C08	-		
-	Checksum test for contour tools		BOOLEAN	Immediately		
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/5	M

**Description:** Indicates for each channel whether for completion of the contour tool definition an edge must be available that includes the negative sums of tool length components and tool radius of the previous edges.

20380	TOOL_CORR_MODE_G43G44		C01, C08, C11	-		
-	Treatment of tool length compensation with G43 / G44		BYTE	Reset		
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0, 0...	0	2	7/2	M

**Description:** This machine data determines in ISO dialect M (G43 / G44) the way in which length compensations programmed with H are processed.

0: Mode A  
Tool length H always acts on the third geometry axis (usually Z)

1: Mode B  
Tool length H acts, depending on the active plane, on one of the three geometry axes. This means with

- G17 on the 3rd geometry axis (usually Z)
- G18 on the 2nd geometry axis (usually Y)
- G19 on the 1st geometry axis (usually X)

In this mode, compensations in all three geometry axes can be configured through multiple programming, i.e. through the activation of one component, the length compensation possibly active in another axis is not deleted.

2: Mode C  
The tool length acts, independent of the active plane, on the axis that has simultaneously been programmed with H. Otherwise, the response is the same as with mode B.

20382	TOOL_CORR_MOVE_MODE		C01, C08	-		
-	Traversing of tool length compensation		BOOLEAN	Reset		
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/2	M

**Description:** This machine data determines how the tool length compensations are traversed.  
0: A tool length compensation is only traversed if the associated axis has been programmed (behavior as in previous software versions)  
1: Tool lengths are always traversed independently of whether the associated axes are programmed or not.

20384	TOOL_CORR_MULTIPLE_AXES		C01, C08, C11	-		
-	Tool length compensation in several axes simultaneously		BOOLEAN	Reset		
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/2	M

**Description:** This machine data determines for tool length compensation in ISO dialect M (ISO2) (G43 / G44), whether the compensation shall be allowed in mode C (selection of the axis on which the compensation is acting by specifying the corresponding axis letter) to act on several axes simultaneously.  
If this machine data is 1, this type of programming is allowed; otherwise it is rejected with an alarm.

20390	TOOL_TEMP_COMP_ON		C01, C08	K3,W1		
-	Activation of temperature compensation for tool length		BOOLEAN	Reset		
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/2	M

**Description:** This machine data activates the temperature compensation in tool direction (see also SD42960 \$SC\_TOOL\_TEMP\_COMP)

20392	TOOL_TEMP_COMP_LIMIT		C01, C08	W1		
mm	Max. temperature compensation for tool length		DOUBLE	Reset		
-						
-	3	1.0, 1.0, 1.0, 1.0, 1.0, 1.0...	-	-	7/7	M

**Description:** With temperature compensation, this machine data indicates the maximum permissible value for the tool length for each geometry axis.  
If a temperature compensation value larger than this limit value is entered, it will be limited without an alarm.

20400	LOOKAH_USE_VELO_NEXT_BLOCK		EXP, C05	B1		
-	LookAhead following block velocity		BOOLEAN	PowerOn		
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/2	M

**Description:** For SW-internal function optimization.

20430	LOOKAH_NUM_OVR_POINTS	EXP, C02, C05	B1			
-	Number of override characteristics for LookAhead	DWORD	PowerOn			
-						
-	-	1, 1, 1, 1, 1, 1, 1, 1...	0	2	7/2	M

**Description:** For SW-internal function optimization.

20440	LOOKAH_OVR_POINTS	EXP, C05	B1			
-	Override switch points for Look Ahead	DOUBLE	PowerOn			
-						
-	2	1.0, 0.2, 1.0, 0.2, 1.0, 0.2, 1.0, 0.2...	0.2	2.0	7/2	M

**Description:** For SW-internal function optimization.

20442	LOOKAH_SYSTEM_PARAM	EXP	-			
-	System parameter for extended LookAhead	DOUBLE	NEW CONF			
-						
-	20	0., 0., 0., 0., 0., 0., 0., 0., 0., 0., 0., 0., 0., 0., 0., 0....	-	-	0/0	M

**Description:** System parameter for extended LookAhead.

20443	LOOKAH_FFORM	EXP, C05	-			
-	Activate extended LookAhead	BYTE	NEW CONF			
-						
-	5	0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	2	7/2	M

**Description:** The MD specifies for which technology groups the extended LookAhead is active.  
Value 0: Default LookAhead  
Value 1: Extended LookAhead  
Value 2: reserved  
E.g. MD20443 \$MC\_LOOKAH\_FFORM[4]=1; i.e. activation for DYNFINISH.  
Entry for all dynamic G code groups.  
When changing between default LookAhead and extended LookAhead or vice versa, the continuous-path mode is interrupted by an interpolatory stop.

20450	LOOKAH_RELIEVE_BLOCK_CYCLE	EXP, C05	B1			
-	Relief factor for block cycle time	DOUBLE	PowerOn			
-						
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/2	M

**Description:** Block cycle problems occur for the following reason:  
The traversing length of the NC blocks to be processed is so short that the Look Ahead function must reduce the machine velocity to provide enough time for block preparation. In this situation, constant deceleration and acceleration of the path motion can occur.  
This machine data defines the extent to which such velocity fluctuations are to be smoothed.

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Special cases:

Values up to approx. 1.0 are appropriate.

The value 0.0 means that the function is deactivated.

20455	LOOKAH_FUNCTION_MASK		EXP, C05	-		
-	Look Ahead special functions		BYTE	NEW CONF		
-						
-	-	1, 1, 1, 1, 1, 1, 1, 1...	0	1	7/2	M

**Description:** Look Ahead special functions:  
 Bit 0 = 1:  
 The Safety Integrated setpoint limitation is already taken into account in Look Ahead.

20460	LOOKAH_SMOOTH_FACTOR		EXP, C05	B1		
%	Smoothing factor for Look Ahead		DOUBLE	NEW CONF		
-						
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	0.	500.0	7/2	M

**Description:** A smoothing factor can be defined to give a more stable path velocity control.  
 It defines the maximum permitted productivity loss.  
 Acceleration procedures which contribute less than this factor to a shorter program run time are then not executed.  
 In this case, only those acceleration procedures whose frequency lies above the frequency parameterized in MD32440 \$MA\_LOOKAH\_FREQUENCY are taken into account.  
 The entry of 0.0 deactivates the function.

20462	LOOKAH_SMOOTH_WITH_FEED		EXP, C05	B1		
-	Path velocity smoothing with programmed feed		BOOLEAN	NEW CONF		
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/2	M

**Description:** The MD defines whether the programmed feed is also taken into account for smoothing the path velocity. In these cases, the factor defined in MD20460 \$MC\_LOOKAH\_SMOOTH\_FACTOR can be better maintained when the override is set to 100%.  
 Related to:  
 MD32440 \$MA\_LOOKAH\_FREQUENCY,  
 MD20460 \$MC\_LOOKAH\_SMOOTH\_FACTOR

20463	FIFOCTRL_ADAPTION		EXP, C05	-		
-	Adaptation of the IPO buffer control		DOUBLE	NEW CONF		
-						
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	0.0	1.0	1/1	M

**Description:** The MD defines how significantly the IPO buffer control (FIFOCTRL) should influence the path feedrate with the buffer full.  
 0.0 means that the IPO buffer control, for a full IPO buffer stops limiting the path feedrate. This shortens the machining time, but it can increase the risk of the IPO buffer running empty.

1.0 means that the IPO buffer control, with full IPO buffer continues to control the path feedrate, and therefore avoids the IPO buffer becoming empty faster. This results in minor fluctuations of the IPO buffer fill level. However, a longer machining time must be expected.

Values between 0.0 and 1.0 permit a smooth, seamless transition from the old to the new response.

Corresponds with:

FIFOCTRL

20464	PATH_MODE_MASK	EXP, C05	-
-	Path behavior	DWORD	Reset
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0 0xffff 7/2 M

**Description:** This machine data is used to influence the path action  
 Bit0:  
 If only rotary axes are traversed in the block as path axes with active G700, the programmed rotary axis velocity corresponds to  
 0: [degrees/min]  
 1: [25.4\*degrees/min]

20465	ADAPT_PATH_DYNAMIC	EXP, C05	B1
-	Adaptation of path dynamic response	DOUBLE	NEW CONF
-			
-	2	1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0...	1.0 100.0 7/2 M

**Description:** This adaptation factor can be used to reduce the dynamics of changes in tool path velocity.  
 ADAPT\_PATH\_DYNAMIC[0] is effective with Brisk, reducing the permissible acceleration  
 ADAPT\_PATH\_DYNAMIC[1] is effective with Soft, reducing the permissible jerk  
 Considering only acceleration processes using a frequency above the frequency parameterized in MD32440 \$MA\_LOOKAH\_FREQUENCY.  
 To disable this function, enter 1.0.

20470	CPREC_WITH_FFW	EXP, C06, C05	K6
-	Programmable contour accuracy	BYTE	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0 3 7/2 M

**Description:** This machine data defines the behavior of the programmable function CPRECON.  
 0: The CPRECON function is inactive when feedforward control is activated simultaneously.  
 1: CPRECON is also active with feedforward control.  
 2: As 1, but the function is parameterized with \$MA\_EQUIV\_CPREC\_TIME.  
 3: As 2, but any contour accuracy programmed with CTOL has priority over \$SC\_CONTPREC.  
 The values 0 and 1 are no longer recommended. They only provide compatibility with older software versions.  
 Related to:  
 \$SC\_CONTPREC, \$SC\_MINFEED, \$MA\_EQUIV\_CPREC\_TIME

20476	ORISON_STEP_LENGTH	EXP	F2
mm	Path length for block division with ORISON	DOUBLE	NEW CONF
-			
-	-	0.5, 0.5, 0.5, 0.5, 0.5, 0.5, 0.5, 0.5...	0.1
-	-	-	1/1
-	-	-	M

**Description:** The path lengths of the part blocks are set with this MD as they are formed with orientation smoothing with ORISON.  
For this data to be active, the division of blocks with ORISON must be enabled with MD \$MC\_ORISON\_MODE (Value 100).

20478	ORISON_MODE	EXP	F2
-	Mode of orientation smoothing	DWORD	NEW CONF
-			
-	-	100, 100, 100, 100, 100, 100, 100, 100...	0
-	-	3232	7/7
-	-	-	M

**Description:** The mode of operation of orientation smoothing with ORISON can be set with this MD.  
The units, tens, hundreds and thousands digits have different meanings. The following possibilities are available:  
The units digits of this data define the type of smoothing: rotary axis or vector smoothing.  
xx0: The type of smoothing is defined by the active G code of the 51st G code group:  
    ORIAXES active: rotary axis smoothing, ORIAXES inactive (e.g. ORI-VECT): vector smoothing.  
xx1: Vector smoothing independent of the active G code of the 51st G code group  
xx2: Rotary axis smoothing independent of the active G code of the 51st G code group  
The tens digits can change the effect of the smoothing:  
x0x: Smoothing takes place along the entire path length.  
x1x: Smoothing takes place homogeneously along the traversing length of the orientation axes.  
x2x: Tolerance changes become active block-synchronously. In the other case, a change of tolerance becomes active incrementally over a defined path length. As a rule, this leads to a more homogeneous progression of the orientation. This setting option only plays a role if the blocks are subdivided (hundreds digit of this machine data 1xx). If the blocks are not subdivided, any tolerance change always becomes active block-synchronously.  
The hundreds digits can set whether the smoothing works on the programmed original blocks or on suitably split blocks:  
0xx: The programmed blocks are not subdivided. The effect of orientation smoothing depends very strongly on the programmed block structure.  
1xx: The programmed blocks are subdivided so that the orientation smoothing can generate an overall homogeneous progression of the orientation.  
    Only those blocks are subdivided, in which a compressor (COMPCAD, COMPCURV, COMPON) is active.  
2xx: The programmed blocks are subdivided so that the orientation smoothing can generate an overall homogeneous progression of the orientation.  
    All programmed blocks are subdivided irrespective of whether a compressor (COMPCAD, COMPCURV, COMPON) is active in them or not.

The thousands digit can set how the tolerance is specified for the orientation smoothing:

0xxx: The tolerance is specified according to the usual rules. This means that, when OTOL = <...> is programmed, the value thus programmed becomes active, otherwise the value of SD \$SC\_ORISON\_TOL becomes active. The G0 tolerance factor is

always included in the calculation (the value of MD \$MC\_G0\_TOLERANCE\_FACTOR or the value programmed with STOLF = <...>).

1xxx: The tolerance is always specified with SD \$SC\_ORISON\_TOL, irrespective of any programming of OTOL = <...>.

2xxx: The G0 tolerance factor is not included in the calculation. This is the case both for the tolerance specified with OTOL = <...> as well as that with \$SC\_ORISON\_TOL.

The two numerical values can be combined with one another.

20480	SMOOTHING_MODE	EXP	B1
-	Behavior of smoothing with G64x	DWORD	NEW CONF
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
		15744	7/7
			M

**Description:**

Configuration of smoothing with G641 and G642 or G643.

The MD is decimal-coded. The units digits define the behavior with G643, and the tens digits the behavior with G642. The hundreds digit can define whether, with G641 or G642, the axes might be accelerated within the smoothing range or traversed at constant velocity. The thousands and ten-thousands digits are used to configure smoothing with G644.

x0: G643 uses axis-specific tolerances; these are set with the axis-specific MD33100 \$MA\_COMPRESS\_POS\_TOL.

x1: G643 uses the contour tolerance SD42465 \$SC\_SMOOTH\_CONTUR\_TOL for smoothing the geometry axes. The axis-specific tolerances in MD33100 \$MA\_COMPRESS\_POS\_TOL are used for smoothing all other axes.

x2: The angular tolerance SD42466 \$SC\_SMOOTH\_ORI\_TOL is used for smoothing the orientation movement. The axis-specific tolerances in MD33100 \$MA\_COMPRESS\_POS\_TOL are used for all other axes.

x3: Combination of the two options 01 and 02. This means that G643 uses the tolerances SD42465 \$SC\_SMOOTH\_CONTUR\_TOL and SD42466 \$SC\_SMOOTH\_ORI\_TOL. All other axes are smoothed with an axis-specific tolerance.

x4: G643 uses the smoothing length programmed with ADIS= or ADISPOS=. The specification of possible axis-specific tolerances or contour and orientation tolerances is ignored.

0x: G642 uses axis-specific tolerances; these are set with the axis-specific MD33100 \$MA\_COMPRESS\_POS\_TOL.

1x: G642 uses the contour tolerance for smoothing the geometry axes. The axis-specific tolerances in MD33100 \$MA\_COMPRESS\_POS\_TOL are used for smoothing all other axes.

2x: The orientation movement with G642 is smoothed using the angular tolerance SD42466 \$SC\_SMOOTH\_ORI\_TOL. The axis-specific tolerances in MD33100 \$MA\_COMPRESS\_POS\_TOL are used for smoothing all other axes.

3x: Combination of both options 10 and 20. This means that G642 uses the tolerances SD42465 \$SC\_SMOOTH\_CONTUR\_TOL und SD42466 \$SC\_SMOOTH\_ORI\_TOL. All other axes are smoothed with an axis-specific tolerance.

x4: G642 uses the smoothing length programmed with ADIS= or ADISPOS=. The specification of possible axis-specific tolerances or contour and orientation tolerances is ignored.

Possible values of the hundreds digit (specification of path velocity for smoothing):

0xx: A profile of the limit velocity is calculated within the smoothing range from the specified maximum values for acceleration and jerk of the axes or path involved. This can lead to an increase in

path velocity in the smoothing range and consequently to an acceleration of the axes involved.

1xx: A profile of the limit velocity is not calculated for smoothing blocks with G641. Only a constant limit velocity is specified. In the case of smoothing with G641/G642 this prevents the axes involved accelerating in the smoothing range. However, this setting may lead to smoothing blocks being traversed at a velocity that is too low, especially in the case of long smoothing ranges.

2xx: No velocity profile for G642 and G645 (see the above scenario for description)

4xx: The "effective" path velocity in a smoothing block will remain constant if possible as long as the dynamic response of the axes permits this. Differing from the default setting, with this setting, the smoothing blocks are also interpolated as a path.

Possible values for the thousands digit (configuration of G644):

0xxx:

When smoothing with G644, the maximum deviations of each axis specified in MD COMPRESS\_POS\_TOL are adhered to. If the dynamic response of the axis allows, the specified tolerance might not be fully utilized.

1xxx:

When smoothing with G644, the smoothing distance is specified.

2xxx:

When smoothing with G644, the maximum frequency at which the smoothing movement of each axis occurs is limited. The maximum frequency is specified in MD32440 \$MA\_LOOKAH\_FREQUENCY.

3xxx:

When smoothing with G644, neither the tolerance nor the smoothing distance is monitored. Each axis traverses around a corner with the maximum possible dynamic response. With SOFT, both the maximum acceleration and the maximum jerk of each axis are observed. With BRISK, the jerk is not limited; instead each axis traverses with the maximum possible acceleration.

4xxx:

When smoothing with G644, the maximum deviations of each axis specified in MD COMPRESS\_POS\_TOL are adhered to. In contrast to the value 0xxx, the specified tolerance is fully utilized where possible. The axis then does not reach its maximum possible dynamic response.

5xxx:

When smoothing with G644, the smoothing distance is specified (ADIS or ADIS-POS). In contrast to the value 1xxx, the specified smoothing distance is also fully utilized if possible. The axes involved then might not reach their maximum dynamic response.

Possible values for the ten-thousands digit (configuration of G644):

0xxxx:

The velocity profiles of the axes in the smoothing range are defined without jerk limitation when BRISK is active, and with jerk limitation when SOFT is active.



1xxxx:

The velocity profiles of the axes in the smoothing range are always defined with jerk limitation no matter whether BRISK or SOFT is active.

The values of the units, tens, hundreds and thousands digits are added.

Related to:

MD33100 \$MA\_COMPRESS\_POS\_TOL,

SD42465 \$SC\_SMOOTH\_CONTUR\_TOL,

SD42466 \$SC\_SMOOTH\_ORI\_TOL

20481	ORISMOOTHING_MODE			EXP	B1	
-	Behavior of smoothing of orientations with OST/OSD			DWORD	NEW CONF	
-						
-	-	1, 1, 1, 1, 1, 1, 1, 1...	0	12	7/7	M

**Description:** Settings for the behavior of smoothing of orientation motions with OST/OSD. It can be set how block transitions are smoothed if additional rotary axes are participating in a path motion which do not act as orientation axes in a transformation. If the value of this MD is zero, for OST/OSD at a block transition, only rotary axes that act as orientation axes in a transformation are smoothed. For values <> 0, any existing additional rotary axes are also smoothed, depending on the situation.

Meaning of the unit position:

x0: Additional rotary axes are not smoothed.

x1: Additional rotary axes are only smoothed if rotary axis interpolation is active for orientation.

x2: Additional rotary axes are smoothed even if vector interpolation is active. In this case, in both blocks it is switched to rotary axis interpolation. Depending on machine kinematics and situation, the switchover can cause undesired rotary axis movements (orientation changes).

Meaning of the decade:

0x: If no orientation transformation is active, rotary axis motions with OST/OSD are not smoothed.

1x: Even without active transformation, rotary axis motions are smoothed. This permits the active smoothing of rotary axes with OST/OSD even without active orientation transformation.

20482	COMPRESSOR_MODE			EXP	F2	
-	Mode of compressor			DWORD	NEW CONF	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	1333	7/7	M

**Description:** This MD is used to set the compressor operating mode. The units digits, the tens digits and the hundreds digits have different meanings.

The following options are available:

Units digits:

0: With the compressor, the tolerances specified with MD33100 \$MA\_COMPRESS\_POS\_TOL are met for all axes (geometry and orientation axes).

1: With the compressor, the contour tolerances specified with SD42475 \$SC\_COMPRESS\_CONTUR\_TOL are active for the geometry axes.

For the orientation axes, the axis-specific tolerances MD33100 \$MA\_COMPRESS\_POS\_TOL are active.

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2: With the compressor, the axis-specific tolerances MD33100 \$MA\_COMPRESS\_POS\_TOL become active for the geometry axes. The orientation movement is compressed in compliance with the maximum angular deviations specified with SD42476 \$SC\_COMPRESS\_ORI\_TOL or SD42477 \$SC\_COMPRESS\_ORI\_ROT\_TOL.

3: With the compressor, the contour tolerance SD42475 \$SC\_COMPRESS\_CONTUR\_TOL becomes active for the geometry axes and the maximum angular deviation SD42476 \$SC\_COMPRESS\_ORI\_TOL or SD42477 \$SC\_COMPRESS\_ORI\_ROT\_TOL becomes active for the orientation axes.

Tens digits:

The tens digits of this MD can be used to set a compressor response that is compatible with previous software releases (< SW 6.3).

0x: All blocks with orientations and value assignments are compressed.

This is the default setting.

Notice: This response is incompatible with previous software releases!

1x: Blocks with value assignments are not compressed (e.g. X=100 ..., etc.)

2x: Blocks with a programmed tool orientation are not compressed.

(e.g. A3= B3= C3=).

3x: All blocks with value assignments and/or programmed tool orientation are not compressed. With this setting, the response is fully compatible with previous software releases (< 6.3).

Hundreds digits:

The hundreds digit can be used to set which blocks in addition to G01 blocks are to be compressed or not:

0xx: Circular blocks and G00 blocks are not compressed. Is compatible with previous releases.

1xx: Circular blocks are linearized and compressed by COMPCAD.

2xx: G00 blocks are compressed; a different tolerance may be applied here (see MD 20560 \$MC\_GO\_TOLERANCE\_FACTOR).

3xx: Combination of the two previous options: Both circular blocks and G00 blocks are compressed.

The thousands digits optimize the compressor for different machine types:

0xxx: Optimization for a good surface quality in tool and mold building.

1xxx: Optimization for soft and fast traversing in special applications.

20484	COMPRESSOR_PERFORMANCE	EXP	-
-	Compressor power	BYTE	Reset
-			
-	-	9, 9, 9, 9, 9, 9, 9, 9...	0 9 0/0 M

**Description:** This MD is used to set the compressor power. Higher values ensure better surfaces, but also require a higher computer power. The correct value is pre-specified for each NCU. For this reason, this MD should only be modified in exceptional cases.

20485	COMPRESS_SMOOTH_FACTOR	EXP, C05	B1
-	Smoothing by compressor	DOUBLE	NEW CONF
-			
-	5	0., 0., 0., 0., 0., 0., 0., 0., 0., 0., 0., 0., 0....	0. 1. 7/2 M

**Description:** Smoothing of the programmed block end points with compressor type COMPCAD. Value 0: no smoothing. Value 1: maximum smoothing. Entry for all dynamic G code groups.

20486	COMPRESS_SPLINE_DEGREE			EXP, C05	B1	
-	Compressor spline degree			BYTE	NEW CONF	
-						
-	5	3, 3, 3, 3, 3, 3, 3, 3, 3, 3...	3	5	7/2	M

**Description:** Spline degree for compressor type COMPCAD. Value 3 is recommended; value 5 may be possible for roughing, if soft and rapid movements are more important than accuracy  
Entry for all dynamic G code groups.

20487	COMPRESS_SMOOTH_FACTOR_2			EXP, C05	B1	
-	Smoothing by compressor			DOUBLE	NEW CONF	
-						
-	5	0., 0., 0., 0., 0., 0., 0., 0., 0., 0....	0.	1.	7/2	M

**Description:** Extent to which the programmed block end points are smoothed in the case of compressor type COMPCAD for non-geometry axes. Value 0: No smoothing. Value 1: Maximum smoothing.  
Entry for each dynamic G code group.

20488	SPLINE_MODE			EXP	B1	
-	Setting for spline interpolation			BYTE	NEW CONF	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	7	7/7	M

**Description:** This MD is used to determine the settings for spline interpolation. The allocation of the spline segments to the NC blocks can thus be influenced. With spline interpolation, the spline blocks are combined, if possible, in such a way, that there are no blocks that are too short and could lead to a reduction in the possible path velocity.  
Bit 0: With BSPLINE, blocks that are too short are avoided.  
Bit 1: With BSPLINE/ORICURVE, blocks that are too short are avoided.  
Bit 2: With CSPLINE, blocks that are too short are avoided.

20490	IGNORE_OVL_FACTOR_FOR_ADIS			EXP	B1	
-	G641/G642 independent of overload factor			BOOLEAN	NEW CONF	
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/7	M

**Description:** A block transition is normally only smoothed with G641 and G642 when the path velocity at block transition is reduced by the overload factor set in MD32310 \$MA\_MAX\_ACCEL\_OVL\_FACTOR. When SOFT is active, the maximum jerk occurring at block transitions is also limited by MD32432 \$MA\_PATH\_TRANS\_JERK\_LIM. This means that the effect of smoothing with G641/G642 depends on the values set for the overload factor and possibly for the maximum jerk.  
By setting MD20490 \$MC\_IGNORE\_OVL\_FACTOR\_FOR\_ADIS = TRUE, a block transition can be smoothed with G641/G642, irrespectively of the values set for the overload factor.

20500	CONST_VELO_MIN_TIME	EXP, C05	B2
s	Minimum time with constant velocity	DOUBLE	PowerOn
-			
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	0.0
		0.1	7/2
			M

**Description:** Defines the minimum time for constant velocity during transition from acceleration to deceleration in short blocks in which the set velocity cannot be reached. Entering a time of at least several IPO cycles prevents a direct transition from the acceleration to the deceleration phase and thus reduces the acceleration jump to half. This acceleration limitation is only active with the acceleration profile BRISK.

MD irrelevant for:

Look Ahead does not take account of this function.

20550	EXACT_POS_MODE	EXP	B1
-	Exact stop conditions on G00/G01.	BYTE	NEW CONF
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0
		33	7/2
			M

**Description:** Configuration of the exact stop conditions for G00 and other G codes of the 1st G code group.

The MD is decimal-coded. The units digits define the behavior at G00 (infeed motion) and the tens digits the behavior of all the other G codes of the 1st group ("machining G codes").

x0: At G00, the relevant programmed exact stop conditions become active.

x1: At G00, G601 (fine positioning window) becomes active independent of the programmed exact stop condition.

x2: At G00, G602 (coarse positioning window) becomes active independent of the programmed exact stop condition.

x3: At G00, G603 (setpoint value reached) becomes active independent of the programmed exact stop condition.

0x: At the machining G codes, the relevant programmed exact stop conditions become active.

1x: At the machining G codes, G601 (fine positioning window) becomes active independent of the programmed exact stop condition.

2x: At the machining G codes, G602 (coarse positioning window) becomes active independent of the programmed exact stop condition.

3x: At the machining G codes, G603 (setpoint value reached) becomes active independent of the programmed exact stop condition.

The values of the units digits and tens digits are added.

For example, the value of EXACT\_POS\_MODE = 2 means that the exact stop condition G602 is always activated automatically at G00, independently of which exact stop condition was programmed. At all other G codes of group 1, the programmed exact stop condition becomes active.

20552	EXACT_POS_MODE_G0_TO_G1	EXP	B1
-	Exact stop condition at G00-G01 transition	BYTE	NEW CONF
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0
		5	7/2
			M

**Description:** Configuration of a stop at transition from G00 to a different G code of the 1st G code group, and also vice versa, at transition from non-G00 to G00 in continuous-path mode.

In exact-stop mode, the positioning window programmed or set in MD20550 \$MC\_EXACT\_POS\_MODE is used.

The following applies:

- 0: No additional stop, no control of exact stop
- 1: Behavior active as with G601 (positioning window, fine).
- 2: Behavior active as with G602 (positioning window, coarse).
- 3: Behavior active as with G603 (setpoint reached).
- 4: As 0,  
in addition, the override of the subsequent non-G00 block is taken into account in the G00 block via LookAhead in the case of a change from G00 to non-G00.
- 5: As 0,  
in addition, the override of the subsequent block is taken into account via LookAhead in the case of a change from G00 to non-G00 and non-G00 to G00.

20560	G0_TOLERANCE_FACTOR			EXP	B1	
-	Tolerance factor for G00			DOUBLE	NEW CONF	
-						
-	-	1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0...	1.e-9	-	1/1	M

**Description:**

Tolerance factor for G00.

This factor is used to make different settings for the tolerances for processing when G00 is active (rapid traverse, infeed motion).

This tolerance factor is relevant for the following control functions:

1. Compressor (COMPCAD, COMPCURV, and COMPON)
2. Smoothing with G64x
3. Smoothing of orientation with OST
4. Smoothing of orientation response with ORISON

This factor can be both greater than 1 and less than 1. However, higher tolerance settings are usual for infeed motion.

If the factor is equal to 1, the tolerances applied for G00 motion are the same as those for non-G00 motion.

20600	MAX_PATH_JERK			C05	B1,B2	
m/s <sup>3</sup>	Path-related maximum jerk			DOUBLE	NEW CONF	
-						
-	5	100., 100., 100., 100., 100....	1.e-9	-	7/2	M

**Description:**

The jerk limitation restricts the path acceleration change in SOFT mode. The path acceleration divided by the jerk limitation value produces a time in which the acceleration change takes place.

The jerk limitation is activated on the path by the NC command SOFT, and deactivated by BRISK.

MD irrelevant for:

Error states that lead to a rapid stop. In addition, the limitation is also inactive for positioning axes.

There is an entry for each dynamic G code group.

20602	CURV_EFFECT_ON_PATH_ACCEL			EXP, C05	B1,B2	
-	Effect of path curvature on path dynamic			DOUBLE	NEW CONF	
-						
-	5	0., 0., 0., 0., 0., 0., 0., 0., 0., 0...	0.	0.95	7/2	M

**Description:** This MD is used to determine whether the reaction of path curvature on path acceleration and path velocity is taken into account.

0:

Not taken into account

> 0:

If required, the path velocity and path acceleration are reduced in order to keep a sufficient reserve on the machine axes for centripetal acceleration.

0.75: Recommended setting.

MD20602 \$MC\_CURV\_EFFECT\_ON\_PATH\_ACCEL defines the proportion of the axis accelerations (see MD32300 \$MA\_MAX\_AX\_ACCEL[...]) that can be used for centripetal acceleration. The remainder is used for changing the path velocity.

Centripetal acceleration is not required for linear blocks; the full axis acceleration is therefore available for the path acceleration. On slightly curved contours or with a sufficiently low maximum path feedrate

\$MC\_CURV\_EFFECT\_ON\_PATH\_ACCEL has only a partial or no effect. Accordingly, the path acceleration is higher than that specified by  $(1. - MD20602 \$MC\_CURV\_EFFECT\_ON\_PATH\_ACCEL) * MD32300 \$MA\_MAX\_AX\_ACCEL[...]$ .

There is an entry for each dynamic G code group.

20603	CURV_EFFECT_ON_PATH_JERK			EXP, C05	B1	
-	Effect of path curvature on path jerk			DOUBLE	NEW CONF	
-						
-	5	0., 0., 0., 0., 0., 0., 0., 0., 0., 0...	0.	1000.	7/2	M

**Description:** Allows the reaction of the path curvature on the path jerk to be taken into account on especially jerk-sensitive machines.

Entry for each dynamic G code group.

20605	PREPDYN_SMOOTHING_FACTOR			EXP, C05	B1	
-	Factor for curve smoothing			DOUBLE	NEW CONF	
-						
-	5	1., 1., 1., 1., 1., 1., 1., 1., 1., 1...	-	-	1/1	M

**Description:** Factor to determine the degree of smoothing and torsion.

A larger value of this MD causes a stronger smoothing and thus a more homogenous curvature/torsion and resulting path velocity.

With this factor being zero no smoothing is performed.

There is an entry for all dynamic G code groups.

20606	PREPDYN_SMOOTHING_ON			EXP, C05	B1	
-	Activation of curve smoothing			BOOLEAN	NEW CONF	
-						
-	5	0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/2	M

**Description:** Switch on of curve and torsion smoothing.

Smoothing of the curve or torsion causes a homogenous path velocity.

Smoothing is only performed, when the relevant factor is MD 20605  
`$MC_PREPDYN_SMOOTHING_FACTOR > 0`.  
 There is an entry for all dynamic G code groups.

20607	PREPDYN_MAX_FILT_LENGTH_GEO	EXP, C05	B1
mm	Maximum filter length for geometry axes	DOUBLE	NEW CONF
-			
-	5	2., 2., 2., 2., 2., 2., 2., 2., 2., 2....	- - 0/0 M

**Description:** Maximum filter length for curve and torsion smoothing of the geometry axes.  
 There is an entry for all dynamic G code groups.

20608	PREPDYN_MAX_FILT_LENGTH_RD	EXP, C05	B1
mm	Maximum filter length for rotary axes	DOUBLE	NEW CONF
-			
-	5	5., 5., 5., 5., 5., 5., 5., 5., 5., 5....	- - 0/0 M

**Description:** Maximum filter length for curve and torsion smoothing of the rotary axes.  
 There is an entry for all dynamic G code groups.

20610	ADD_MOVE_ACCEL_RESERVE	C05	F2,B2,K1
-	Acceleration margin for overlaid movements	DOUBLE	PowerOn
-			
-	-	.2, .2, .2, .2, .2, .2, .2, .2...	0. 0.9 7/2 M

**Description:** This machine data contains the factor which defines the acceleration margin which is not used by a path movement in order to provide sufficient acceleration reserves for an overlaid movement for the velocity control.  
 A factor of 0.2 means that the path axes utilize 80% of the path acceleration in normal operation. Only when a request for overlaid movement is made, can 100% of the path acceleration be utilized.  
 MD irrelevant for:  
 Error states that lead to a rapid stop. In addition, the limitation is also ineffective for positioning axes.  
 Special cases:  
 At the moment the machine data is only taken into account if the function "Fast retraction" is first activated.  
 Related to:  
 MD32300 `$MA_MAX_AX_ACCEL` (axis acceleration)

20620	HANDWH_GEOAX_MAX_INCR_SIZE	C08, C06	H1
mm	Limitation handwheel increment for geometry axes	DOUBLE	PowerOn
-			
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	- - 7/2 M

**Description:** > 0: Limitation of the size of the selected increment for geometry axes  
`$MN_JOG_INCR_SIZE0` [<increment/VDI signal>] or  
`SD41010 $SN_JOG_VAR_INCR_SIZE` for geometry axes  
 0: No limitation on geometry axes

20621	HANDWH_ORIAX_MAX_INCR_SIZE	C08, C06	-
degrees	Limiting of handwheel increment for orientation axes	DOUBLE	PowerOn
-			
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-
			7/2
			M

**Description:** > 0: Limitation of the size of the selected increment for orientation axes  
 $\$MN\_JOG\_INCR\_SIZE[<increment/VDI\ signal>]$  or  
 $SD41010\ \$SN\_JOG\_VAR\_INCR\_SIZE$  for orientation axes  
 = 0: No limitation on orientation axes

20622	HANDWH_GEOAX_MAX_INCR_VSIZE	C08, C06, C05	-
mm/min	Path velocity override	DOUBLE	PowerOn
-			
-	-	500., 500., 500., 500., 500., 500., 500....	-
			7/2
			M

**Description:** The following applies to the velocity override of the path:  
 > 0: Limitation of the size of the selected increment  
 ( $\$MN\_JOG\_INCR\_SIZE[<increment/VDI\ signal>]$  or  
 $SD41010\ \$SN\_JOG\_VAR\_INCR\_SIZE$ ) / 1000 \* IPO sampling time  
 = 0: No limitation

20623	HANDWH_ORIAX_MAX_INCR_VSIZE	C08, C06, C05	-
rev/min	Orientation velocity overlay	DOUBLE	PowerOn
-			
-	-	0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1...	-
			7/2
			M

**Description:** For the orientation velocity overlay:  
 > 0: Limitation of the size of the selected increment  
 ( $\$MN\_JOG\_INCR\_SIZE[<increment/VDI\ signal>]$  or  
 $SD41010\ \$SN\_JOG\_VAR\_INCR\_SIZE$ ) / 1000 \* IPO sampling time  
 = 0: No limitation

20624	HANDWH_CHAN_STOP_COND	EXP, C09	H1,P1
-	Definition of response of handwheel travel, channel-specific	DWORD	PowerOn
-			
-	-	0x13FF, 0x13FF, 0x13FF, 0x13FF, 0x13FF...	0
			0xFFFF
			7/2
			M

**Description:** Definition of the behavior for handwheel travel to channel-specific VDI interface signals (bit 0 to bit 7) or the context-sensitive interpolator stop (bit 7):  
 Bit = 0:  
 Interruption or collection of the displacements entered via the handwheel.  
 Bit = 1:  
 Traversing canceled and no collecting  
 Bit assignment:  
 Bit 0: Mode group stop  
 Bit 1: Mode group stop, axes plus spindle  
 Bit 2: NC stop  
 Bit 3: NC stop, axes plus spindles



Bit 4: Feed disable (exceptions with MD30460 \$MA\_BASE\_FUNCTION\_MASK bit 6)

For bit 4 feed disable, it must be taken into account that a PLC-controlled axis, for which MD30460 \$MA\_BASE\_FUNCTION\_MASK bit 6 = 1, is not stopped by the feed disable, and that no interruption and no cancelation are triggered here.

Bit 5: Feedrate override

Bit 6: Rapid traverse override

Bit 7: Feed stop, geometry axis or context-sensitive interpolator stop

Bit 8 = 0:

The maximum feedrate for handwheel travel of geometry axes is that specified in machine data JOG\_AX\_VELO for the corresponding machine axis/axes.

Bit 8 == 1:

The maximum feedrate for handwheel travel of geometry axes is that specified in machine data MAX\_AX\_VELO for the corresponding machine axis/axes.

Bit 9 = 0:

The override is active during handwheel travel of geometry axes

Bit 9 = 1:

During handwheel travel of geometry axes, the override is assumed to be 100% irrespective of the position of the override switch.

Exception: override 0, which is always active.

Bit 10 = 0:

MD11310 \$MN\_HANDWH\_REVERSE is not active for DRF, i.e. handwheel travel with DRF is carried out as if MD11310 \$MN\_HANDWH\_REVERSE = 0.

Bit 10 = 1:

MD11310 \$MN\_HANDWH\_REVERSE is active for DRF.

Bit 11 = 0:

When the contour handwheel is deselected, program processing is continued automatically.

Bit 11 = 1:

When the contour handwheel is deselected, an NCSTOP is triggered automatically. Program processing is not continued until NCSTART is entered.

Bit 12 = 0

NC start has no effect on handwheel travel.

Bit 12 = 1:

The previously collected paths are rejected at NC start.

Bit 13 = 0:

For DRF, bits 0 - 3 and bit 12: bit = 0 / bit = 1 are active (see above).

Bit 13 = 1:

For DRF, bits 0 - 3 and bit 12 are NOT active: the DRF motion is not interrupted by a stop, and a DRF motion can take place even in "Automatic interrupted" state (achieved by NC Stop).

Note:

If an alarm leads to an axis stop and if such an alarm is pending, no DRF motion can take place.

Bit 14 = 0:

The maximum feedrate for handwheel travel of geometry axes is that specified in SD41120 \$SN\_JOG\_REV\_SET\_VELO or in MD32050 \$MA\_JOG\_REV\_VELO (for rotational feedrate) or in MD32040 \$MA\_JOG\_REV\_VELO\_RAPID (for rapid traverse) for the corresponding machine axis, the spindle or rotary axis feedrate is included in the calculation.

1.3 NC machine data

Bit 14 = 1:

The maximum rotational feedrate for handwheel travel of geometry axes is the feedrate specified in MD32000 \$MA\_MAX\_AX\_VELO for the corresponding machine axis (see also bit 6).

Bit 15 = 0:

If an axis with active diameter programming is traversed in the channel, only half the distance of the specified increment is traveled during handwheel travel (\$MN\_HANDWH\_TRUE\_DISTANCE = 1 or 3).

Bit 15 = 1:

If an axis with active diameter programming is traversed in the channel, the specified increment is fully traveled during handwheel travel (\$MN\_HANDWH\_TRUE\_DISTANCE = 1 or 3).

20700	REFP_NC_START_LOCK	C01, C03	D1,R1,Z1
-	NC start disable without reference point	BYTE	Reset
-			
-	-	1, 1, 1, 1, 1, 1, 1, 1...	0 2 7/2 M

**Description:** 0: The NC/PLC interface signal DB21-30 DBX7.1 (NC start) for starting part programs or part program blocks (MDI and overstore) is active even if one or all axes of the channel have not yet been referenced.  
 To ensure that the axes nevertheless reach the correct position after NC startup, the work (workpiece coordinate system = work) must be set to the correct value by means of other methods (scratch method, automatic work off-set determination etc.).  
 1: Axes for which the axial MD34110 \$MA\_REFP\_CYCLE\_NR specifies that a reference point is mandatory (value > -1), must be referenced for NC startup to be enabled.  
 2: Advanced form of setting 1 in that the axis state "Position restored" (instead of "referenced") is sufficient for NC startup in MDI or overstore.

20730	G0_LINEAR_MODE	C09	P2
-	G0 interpolation mode	BOOLEAN	PowerOn
-			
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	- - 7/2 M

**Description:** This machine data defines the interpolation behavior of G0:  
 0: Non-linear interpolation (RTLIOF): Each path axis interpolates as an individual axis (positioning axis), independently of the other axes, at the rapid traverse velocity of the axis (MD32000 \$MA\_MAX\_AX\_VELO).  
 1: Linear interpolation (RTLION): The path axes are interpolated jointly.  
 Related to:  
 MD20732 \$MC\_EXTERN\_G0\_LINEAR\_MODE

20732	EXTERN_G0_LINEAR_MODE	N12	P2
-	G00 interpolation mode	BOOLEAN	PowerOn
-			
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	- - 7/2 M

**Description:** This machine data defines the interpolation behavior of G00:  
 0: Axes are traversed as positioning axes

1: Axes interpolate with each other  
 Related to:  
 MD10886 \$MN\_EXTERN\_INCREMENT\_SYSTEM

20734	EXTERN_FUNCTION_MASK	N12	-
-	Function mask for external language	DWORD	Reset
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
		0xFFFF	7/2
			M

**Description:**

This machine data is used to influence functions in ISO mode.

Bit0: 0:

ISO mode T: "A" and "C" are interpreted as axes. If contour definition has been programmed, "A" or "C" must be preceded by a comma.

1:

"A" and "C" in the part program are always interpreted as a contour definition. An axis "A" or "C" is not allowed.

Bit1: 0:

ISO mode T: G10 P < 100 tool geometry  
 P > 100 tool wear

1:

G10 P < 10000 tool geometry  
 P > 10000 tool wear

Bit2: 0:

G04 dwell time: always [s] or [ms]

1:

If G95 is active, in spindle revolutions

Bit3: 0:

Errors in ISO scanner lead to an alarm

1:

Errors in ISO scanner are not output, the block is transferred to the Siemens translator.

Bit4: 0:

G00 is traversed with the current exact stop - continuous-path mode G code

1:

G00 is always traversed with G09

Bit5: 0:

Modulo rotary axis is positioned at the shortest possible distance

1:

Direction of rotation of modulo rotary axis depends on sign

Bit6: 0:

Only 4-digit program number allowed.

1:

8-digit program number allowed. If the program number has less than 4 digits, it is expanded to 4 digits with 0.

Bit7: 0:

Axis programming for geometry axis exchange/parallel axes is compatible with ISO mode.

1:

Axis programming for geometry axis exchange/parallel axes in ISO mode is compatible with Siemens mode.

1.3 NC machine data

Bit8: 0:  
 With cycles, the F value transferred is always interpreted as a feedrate.  
 1:  
 With threading cycles, the F value transferred is interpreted as a pitch.

Bit9: 0:  
 Multiplication with 0.01mm / 0.0001inch is carried out in ISO mode T for G84, G88 and in standard mode F for G95.  
 1:  
 Multiplication with 0.001mm / 0.00001inch is carried out in ISO mode T for G84, G88 and in standard mode F for G95.

Bit10: 0:  
 With M96 Pxx, the program programmed with Pxx is always called in the case of an interrupt  
 1:  
 With M96 Pxx, CYCLE396.spf is always called in the case of an interrupt

Bit11: 0:  
 With G54 Pxx, only G54.1 is displayed  
 1:  
 With G54 Pxx, the programmed program is displayed after the point, e.g. G54.48

Bit12: 0:  
 When the subroutine defined with M96 Pxx is called, \$P\_ISO\_STACK is not modified  
 1:  
 When the subroutine defined with M96 Pxx is called, \$P\_ISO\_STACK is incremented

Bit13: 0:  
 G10 is executed without internal STOPRE  
 1:  
 G10 is executed with internal STOPRE

Bit14: 0:  
 ISO\_mode T: No alarm if a cutting edge has been programmed in the T command.  
 1:  
 ISO mode T: Alarm 14185 if a cutting edge has not been programmed in the T command.

20750	ALLOW_G0_IN_G96	C09, C05	P2, V1
-	G0 logic with G96, G961	BOOLEAN	PowerOn
-			
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	7/2 M

**Description:** This machine data defines the speed regulation characteristic of the spindle in G0 blocks with constant cutting rate (G96, G961) selected .  
 1: In a G0 block, the spindle speed is kept constant at the last value of the previous block that was unequal G0.  
 Prior to a subsequent block that does not contain G0, the spindle speed is increased to a value that belongs to the transverse axis position of the subsequent block.  
 0: In a G0 block, the spindle speed changes against the transverse axis position.

20800	SPF_END_TO_VDI	C04, C03	H2,K1
-	End of subroutine to PLC	BYTE	PowerOn
-			
-	-	1, 1, 1, 1, 1, 1, 1, 1...	-
-	-	-	-
-	-	-	7/2
-	-	-	M

**Description:**

Bit 0 = 1:  
The M functions for subroutine end (M17 and/or M2/M30) are transferred to the PLC interface.

Bit 0 = 0:  
The M functions for subroutine end (M17 and/or M2/M30) are not transferred to the PLC interface.

Note:  
To prevent stopping in continuous-path mode, M17 must not be programmed alone in a block.

Example of a subroutine: G64 F2000 G91 Y10 X10  
X10 Z10 M17

Bit 1 = 0:  
M01:  
conditional program stop is always output to PLC, irrespective of whether the M01 signal is active or not.  
Fast auxiliary function output M=QU(1) is inactive because M01 is assigned to the 1st M function group and thus is always output at block end.

Bit 1 = 1:  
M01:  
conditional program stop is only output to PLC, if M01 is also active.  
This thus enables optimal run-time processing of the part program.  
With fast auxiliary function output M=QU(1), M1 is output during the movement; thus it is possible to traverse blocks in continuous-path mode with programmed M01 as long as M01 is not active.  
The request of the M01 signal with M=QU(1) no longer occurs at block end but during the movement.

20850	SPOS_TO_VDI	C04, C03	S1
-	Output of M19 to PLC on SPOS/SPOSA	BYTE	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-
-	-	-	-
-	-	-	7/2
-	-	-	M

**Description:**

Bit 0 = 0:  
When bit 19 is also set to '0' in MD35035 \$MA\_SPIND\_FUNCTION\_MASK, auxiliary function M19 is not generated with SPOS and SPOSA. This also eliminates the acknowledgement time for the auxiliary function, which can cause faults with very short blocks.

Bit 0 = 1:  
When SPOS and SPOSA are programmed in the part program, auxiliary function M19 is generated and output to the PLC. The address extension corresponds to the spindle number.

Related to:  
SPIND\_FUNCTION\_MASK

20900	CTAB_ENABLE_NO_LEADMOTION	EXP	M3
-	Curve tables with jump of slave axis	BYTE	Reset
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
			2
			7/2
			M

**Description:** This MD is used to configure the way jumps of the slave axis are processed in curve tables. A jump of the slave axis results from the presence of a movement of the slave axis in a segment of the curve table with no corresponding movement of the master axis.

The jumps of the slave axis may be programmed directly, or they are created internally in the control.

These segments may be created especially if a curve table with active tool radius compensation is generated.

The following configurations are possible:

0: No curve tables are created that contain a jump of the slave axis. If a jump of the slave axis occurs, alarm 10949 (CTAB\_NO\_LEADMOTION) is issued and program processing is terminated. This setting is compatible with previous software versions.

1: Curve tables containing a jump of the slave axis may be implemented. If a jump of the slave axis occurs, alarm 10955 (CTAB\_NO\_LEADMOTIONWARNING) is issued without terminating program processing.

2: Curve tables with jumps of the slave axis are implemented without issuing an alarm or a note.

20905	CTAB_DEFAULT_MEMORY_TYPE	EXP	M3
-	Default memory type for curve tables	BYTE	Reset
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
			1
			7/2
			M

**Description:** This machine data defines the memory (SRAM or DRAM) in which the curve tables are created by default.

This MD is only relevant if no memory type was specified when defining a curve table using CTABDEF().

The following settings can be selected:

0: By default, curve tables are created in the SRAM.

1: By default, curve tables are created in the DRAM.

21000	CIRCLE_ERROR_CONST	C06	-
mm	Circle end point monitoring constant	DOUBLE	PowerOn
-			
-	-	0.01, 0.01, 0.01, 0.01, 0.01, 0.01, 0.01...	-
			-
			7/2
			M

**Description:** This machine data is used to specify the permissible absolute circle error [mm].

When a circle is programmed, both conditions (that the distances from the programmed center point to the start and end points (circle radius) must be the same and that the center point of the circle must be located on the perpendicular bisector of the straight line connecting the start and end points (perpendicular bisector of the circular plane)) apply.

The fact that the circular parameters can be freely programmed means that these conditions are not usually met exactly in the case of circular-path programming with I, J, and K (the circle is "overdefined").

The maximum permissible difference between the two radii that is accepted without an alarm, as well as the distance between the programmed center point of the circle and the perpendicular bisector described above, is defined by the larger value in the following data:

- MD21000 \$MC\_CIRCLE\_ERROR\_CONST
- Start radius multiplied by MD21010 \$MC\_CIRCLE\_ERROR\_FACTOR

This means that for small circles the tolerance is a fixed value (MD21000 \$MC\_CIRCLE\_ERROR\_CONST), and for large circles it is proportional to the start radius.

Related to:

MD21010 \$MC\_CIRCLE\_ERROR\_FACTOR

(circle end point monitoring factor)

In the context of the predefined tolerances, conflicting circle data is compensated essentially by moving the center point of the circle. Please note that the deviation between the programmed center point and the actual center point can reach the order of magnitude set with machine data

\$MC\_CIRCLE\_ERROR\_CONST and/or \$MC\_CIRCLE\_ERROR\_FACTOR. In the case of circles which are almost full circles in particular, this can also lead to contour deviations of the same order of magnitude.

21010	CIRCLE_ERROR_FACTOR	C06	-
-	Circle end point monitoring factor	DOUBLE	PowerOn
-			
-	-	0.001, 0.001, 0.001, 0.001, 0.001, 0.001...	-
			7/2 M

**Description:**

Factor for permissible radius difference.

Defines the factor for large circles by which the starting radius and end radius may deviate from each other

(see also MD21000 \$MC\_CIRCLE\_ERROR\_CONST (circle end point monitoring constant)).

When a circle is programmed, both conditions (that the distances from the programmed center point to the start and end points (circle radius) must be the same and that the center point of the circle must be located on the perpendicular bisector of the straight line connecting the start and end points (perpendicular bisector of the circular plane)) apply.

The fact that the circular parameters can be freely programmed means that these conditions are not usually met exactly in the case of circular-path programming with I, J, and K (the circle is "overdefined").

The maximum permissible difference between the two radii that is accepted without an alarm, as well as the distance between the programmed center point of the circle and the perpendicular bisector described above, is defined by the larger value in the following data:

- MD21000 \$MC\_CIRCLE\_ERROR\_CONST
- Start radius multiplied by MD21010 \$MC\_CIRCLE\_ERROR\_FACTOR

This means that for small circles the tolerance is a fixed value (MD21000 \$MC\_CIRCLE\_ERROR\_CONST), and for large circles it is proportional to the start radius.

Related to:

MD21000 \$MC\_CIRCLE\_ERROR\_CONST

(circle end point monitoring factor)

In the context of the predefined tolerances, conflicting circle data is compensated essentially by moving the center point of the circle. Please note that the deviation between the programmed center point and the actual center point can reach the order of magnitude set with machine data \$MC\_CIRCLE\_ERROR\_CONST and/or \$MC\_CIRCLE\_ERROR\_FACTOR. In the case of circles which are almost full circles in particular, this can also lead to contour deviations of the same order of magnitude.

21015	INVOLUTE_RADIUS_DELTA	C06	A2
mm	Involute end point monitoring	DOUBLE	PowerOn
-			
-	-	0.01, 0.01, 0.01, 0.01, 0.01, 0.01, 0.01...	-
			7/2 M

**Description:** Permissible absolute difference of radius at involute interpolation [mm].  
At involute interpolation, the radius of the basic circle determined by the end point may differ from the programmed radius.  
This data is used to limit the permissible maximum difference between start radius and end radius.

21016	INVOLUTE_AUTO_ANGLE_LIMIT	C06	A2
-	Automatic angle limitation during involute interpolation	BOOLEAN	PowerOn
-			
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-
			7/2 M

**Description:** If the angle of rotation is programmed for an involute (AR=angle), the maximum angle of rotation is limited in case the involute is travelling towards the basic circle (AR < 0). The maximum angle of rotation is reached when the involute touches the basic circle.  
Normally, if an angle larger than the maximum angle is programmed, an alarm is issued and the NC program canceled.  
If this MD is set to TRUE any angle is accepted without an alarm for programming. If required, this angle is limited automatically.

21020	WORKAREA_WITH_TOOL_RADIUS	C03, C06	A3
-	Consideration of tool radius for working area limitation	BOOLEAN	Reset
-			
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-
			7/2 M

**Description:** This machine data indicates whether the tool radius is taken into account in the working area limitation.  
0: It is checked whether the tool center lies within the working area limits.  
1: The tool radius is taken into account when the working area limitation is checked. This means that the working area is reduced by the tool radius.



21050	CONTOUR_TUNNEL_TOL		C06	K6		
mm	Response threshold for contour tunnel monitoring		DOUBLE	NEW CONF		
-						
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/2	M

**Description:** Response threshold for contour tunnel monitoring. Defines the radius of the "tunnel" around the path of the tool tip.

If three geometry axes are defined, the tunnel can be regarded as a tube through the center of which the path of the tool tip travels.

If only two geometry axes are defined, this tube can be regarded as squashed flat in the plane of the two geometry axes.

Monitoring is only active if:

- option contour tunnel monitoring is present and
- MD21050 \$MC\_CONTOUR\_TUNNEL\_TOL is larger than 0.0 and
- at least two and at most three geometry axes are defined.

Related to:

MD21060 \$MC\_CONTOUR\_TUNNEL\_REACTION,  
MD21070 \$MC\_CONTOUR\_ASSIGN\_FASTOUT,  
MD36500 \$MA\_ENC\_CHANGE\_TOL

21060	CONTOUR_TUNNEL_REACTION		C06	K6		
-	Reaction when contour tunnel monitoring responds		BYTE	PowerOn		
-						
-	-	1, 1, 1, 1, 1, 1, 1, 1...	0	2	7/2	M

**Description:** Reaction to response of the alarm

0: Only display alarm, continue machining  
1: Ramp stop  
2: Rapid stop

MD irrelevant:  
If the contour tunnel monitoring option is not available

Related to:  
MD21050 \$MC\_CONTOUR\_TUNNEL\_TOL, MD21070 \$MC\_CONTOUR\_ASSIGN\_FASTOUT

21070	CONTOUR_ASSIGN_FASTOUT		C01, C06	K6		
-	Assignment of an analog output for the output of contour error		BYTE	PowerOn		
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	8	7/2	M

**Description:** Assignment of an analog output on which the calculated contour error can be output.

0: No output  
1: Output on output 1  
2: Output on output 2  
etc.  
8: Output on output 8

An error as large as the response threshold MD21050 \$MC\_CONTOUR\_TUNNEL\_TOL appears on the output as a voltage of 10V.

Multiple assignment of the same output by other signals is checked automatically.

1.3 NC machine data

MD irrelevant:

If the contour tunnel monitoring option is available

Related to:

MD21050 \$MC\_CONTOUR\_TUNNEL\_TOL, MD21060 \$MC\_CONTOUR\_TUNNEL\_REACTION

21080	CUTCOM_PARALLEL_ORI_LIMIT	C08, C06	-
degrees	Minimum angle (path tangent / tool orientation) in 3D TRC	DOUBLE	Reset
-			
-	-	3., 3., 3., 3., 3., 3., 3., 3....	0.1 89. 7/2 M

**Description:** With 3D tool radius compensation, the angle between the path tangent and the tool orientation may not drop below a certain limit angle. This machine data specifies this angle (in degrees).  
 Generally speaking, the lower the value entered in this machine data, the greater the computing capacity required to check that the above conditions are fulfilled.  
 Linear blocks with constant orientation are an exception.

21082	CUTCOM_PLANE_ORI_LIMIT	C08, C06	-
degrees	Minimum angle between surface normal vector and tool orientation	DOUBLE	Reset
-			
-	-	3., 3., 3., 3., 3., 3., 3., 3....	1.0 89. 7/2 M

**Description:** This machine data applies to 3D face milling operations and specifies the minimum angle that must exist between the surface normal vector and the tool orientation on every point of the path if the applied lateral angle is not equal to zero and the tool is not a ball mill. Otherwise, machining is canceled with an alarm if the angle is smaller than the value set here.  
 Generally speaking, the lower the value entered in this machine data, the greater the computing capacity required to check that the above conditions are fulfilled. This data has no effect in linear blocks with constant orientation. The angle between the surface normal vector and tool orientation may be as small as desired in such cases, even if the lateral angle is not equal to zero.

21084	CUTCOM_PLANE_PATH_LIMIT	C08, C06	W5
degrees	Min. angle betw. surface normal vector and path tangent vector	DOUBLE	Reset
-			
-	-	3., 3., 3., 3., 3., 3., 3., 3....	1.0 89. 7/2 M

**Description:** This machine data applies to 3D face milling operations and specifies the minimum angle that must exist between the surface normal vector and the path tangent vector on every point of the path. Otherwise machining is canceled with an alarm if the angle is smaller than the value set here.  
 Generally speaking, the lower the value entered in this machine data, the greater the computing capacity required to check that the above conditions are fulfilled.

21090	MAX_LEAD_ANGLE	C08, C09	M1
degrees	Maximum value of permitted lead angle for orientation progr.	DOUBLE	NEW CONF
-			
-	-	80., 80., 80., 80., 80., 80., 80., 80....	0.
		80.	7/7
			M

**Description:** Maximum permissible value of the lead angle in degrees.

21092	MAX_TILT_ANGLE	C08, C09	M1
degrees	Maximum value of permitted side angle for orientation progr.	DOUBLE	NEW CONF
-			
-	-	180., 180., 180., 180., 180., 180., 180....	-180.
		180.	7/7
			M

**Description:** Maximum permissible value of the tilt angle in degrees.

21094	ORIPATH_MODE	C02	F2
-	Setting for ORIPATH path-relative orientation	DWORD	NEW CONF
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
		1211	7/7
			M

**Description:** This MD is used to set the response for ORIPATH, i.e. path-relative interpolation of tool orientation.

The various digits of this machine data are used to activate different functions for ORIPATH.

Meaning of the units digit: Activation of "true" path-relative orientation interpolation

xxx 0:

The tool orientation has the relation to the path tangent and the normal vector programmed with LEAD and TILT only at the end of the block; within the block, the orientation does not follow the path tangent. This corresponds to the response in SW release 6.xx.

xxx1:

The tool orientation relation to the path tangent and the surface normal vector programmed with LEAD/TILT is retained throughout the block. Meaning of the tens digit: Interpretation of the TILT angle.

Meaning of the tens digit: Interpretation of the angle programmed with LEAD and TILT.

xx0x:

The angles programmed with LEAD and TILT are evaluated in the following rotation sequence:

1. LEAD = Rotation around direction vertical to tangent and normal vector (forward angle)
2. TILT = Rotation of orientation around normal vector

This is the interpretation of the LEAD/TILT angles in SW releases < 7.2

xx1x:

The angles programmed with LEAD and TILT are evaluated in the following rotation sequence:

1. LEAD = Rotation around direction vertical to tangent and normal vector (forward angle)
2. TILT = Rotation of orientation around vector in direction of tangent (tilt angle)

xx2x:

The angles programmed with LEAD and TILT are evaluated in the following rotation sequence:

1. LEAD = Rotation around direction vertical to tangent and normal vector  
(forward angle)
2. TILT = Rotation of orientation around vector in direction of rotated (new) tangent  
(tilt angle)

xx3x:

The angles programmed with LEAD and TILT are evaluated in the following rotation sequence:

1. TILT = Rotation of orientation around vector in direction of tangent  
(tilt angle)
2. LEAD = Rotation around direction vertical to tangent and normal vector  
(forward angle)

xx4x:

The angles programmed with LEAD and TILT are evaluated in the following rotation sequence:

1. TILT = Rotation of orientation around vector in direction of tangent  
(tilt angle)
2. LEAD = Rotation around direction vertical to tangent and rotated (new) normal vector  
(forward angle)

Meaning of hundreds digit: Activation of a retract movement in the case of reorientation.

0xx:

In the case of reorientation with ORIPATH, a retract movement is not executed.

1xx:

In the case of reorientation with active ORIPATH, a retract movement in the direction of the programmed vector is executed. The programmed vector for the direction of the retract movement refers to the coordinate system defined by the current tool direction (z coordinate) and the change in orientation (x coordinate).

2xx:

In the case of reorientation with active ORIPATH, a retract movement in the direction of the programmed vector is executed. The programmed vector for the direction of the retract movement refers to the coordinate system defined by the current surface normal vector (z coordinate) and the change in orientation (x coordinate).

A retract movement is possible only with a "true" path-relative orientation interpolation, i.e. if the units digit of this MD has a value of one.

Meaning of the thousands digit: Response of path-relative orientation on activation / deactivation of tool offset.

0xxx:

The path-relative orientation is also retained in activation / deactivation blocks associated with tool offset.

lxxx:

The path-relative orientation is not retained in activation / deactivation blocks associated with tool offset. In these blocks, the tool orientation usually remains constant. However, tool orientation can be programmed in these blocks and then traversed there, although any orientation has to be programmed with vectors (the programming of rotary axis positions is not permitted).

21100	ORIENTATION_IS_EULER		C01, C09	F2,TE4,M1	
-	Angle definition for orientation programming		BOOLEAN	NEW CONF	
-					
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7 M

**Description:** This data is only active for MD21102 \$MC\_ORI\_DEF\_WITH\_G\_CODE = 0  
MD = 0 (FALSE):  
The values programmed with A2, B2, C2 during orientation programming are interpreted as an RPY angle (in degrees).  
The orientation vector is produced by rotating a vector in direction Z first by C2 around the Z axis, then by B2 around the new Y axis and finally by A2 around the new X axis. In contrast to Euler angle programming, all three values influence the orientation vector in this case.  
MD = 1 (TRUE):  
The values programmed with A2, B2, C2 during orientation programming are interpreted as Euler angles (in degrees).  
The orientation vector is produced by rotating a vector in direction Z first by A2 around the Z axis, then by B2 around the new X axis and finally by C2 around the new Z axis. This means that the value of C2 is meaningless.

21102	ORI_DEF_WITH_G_CODE		C01, C07	F2	
-	Definition of orientation axes with G code		BOOLEAN	NEW CONF	
-					
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/2 M

**Description:** Definition of the orientation angles A2, B2, C2  
0: Definition as per MD21100 \$MC\_ORIENTATION\_IS\_EULER  
1: Definition as per G code ( ORIEULER, ORIRPY, ORIVIRT1, ORIVIRT2)

21103	ORI_ANGLE_WITH_G_CODE		C01, C07	-	
-	Definition of orientation angles via G code		BOOLEAN	NEW CONF	
-					
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/2 M

**Description:** Definition of the orientation angles A2, B2, C2:  
FALSE: Definition as per MD21100 \$MC\_ORIENTATION\_IS\_EULER  
TRUE : Definition as per G code ( ORIEULER, ORIRPY, ORIVIRT1, ORIVIRT2)  
Only programming of angles with A2, B2, C2 is interpreted in accordance with G codes ORIEULER, ORIRPY, ORIVIRT1, ORIVIRT2 and not programming of angles by means of the orientation axes, as is the case with MD21102  
\$MC\_ORI\_DEF\_WITH\_G\_CODE = 1.

21104	ORI_IPO_WITH_G_CODE		C01, C07	F2		
-	G code for orientation interpolation		BOOLEAN	NEW CONF		
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/2	M

**Description:** Definition of the type of interpolation for the orientation  
 FALSE: Referred to G codes ORIWKS and ORIMKS  
 TRUE : Referred to G codes ORIAxes, ORIVect, ORIPLANE, ORICONxx and ORICURVE of the 51st G code group

21106	CART_JOG_SYSTEM		C01, C07	F2, M1		
-	Coordinate systems for Cartesian JOG		DWORD	PowerOn		
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	7	7/2	M

**Description:** This machine data has two meanings. First, it is used to activate the "Cartesian manual traverse" function. Second, it is used to determine the reference systems between which a switchover can be performed.  
 The meaning of the individual bits is determined as follows:  
 Bit 0 : Basic coordinate system  
 Bit 1 : Workpiece coordinate system  
 Bit 2 : Tool coordinate system

21108	POLE_ORI_MODE		C07	F2		
-	Response with vector interpolation in pole position		DWORD	NEW CONF		
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	11122	7/7	M

**Description:** This MD defines how the change in orientation in the case of vector interpolation is treated if the orientation runs through the pole taper, which is defined by MD2... \$MC\_TRAFO5\_POLE\_LIMIT\_...n.  
 Vector interpolation is involved, if tool orientation is interpolated independent of the kinematics, e.g. by means of large circle interpolation (orientation is swiveled in a plane), taper interpolation or through interpolation of a 2nd reference point on the tool (ORICURVE), and not directly the orientation axes.  
 In the pole position, the pole axis can have any position. For large circle interpolation, however, this axis requires a certain orientation.  
 If the start orientation is equal or close to the pole orientation and the end orientation of the block lies outside the tolerance circle defined by machine data TRAF05\_POLE\_LIMIT\_n, the pole axis can be moved to a position suitable to ensure that the subsequent vector interpolation can be carried out. This is set via the units and tens digits of this machine data.  
 The units digits can have the following values (active if start orientation equal to pole orientation):  
 0: The interpolation is carried out as an axis interpolation. The specified orientation path (large circle) is followed only if the pole axis (coincidentally) has the right position and the basic orientation is perpendicular to the 2nd rotary axis.  
 1: A block, that positions the pole axis to a position enabling large circle interpolation to be carried out in the subsequent block, is inserted before the block where the situation described occurs.

2: If the block preceding the block in which the situation described occurs contains a geometry axis movement but no orientation movement the required positioning movement of the pole axis is additionally carried out in this previous block.

If one of the two conditions is not fulfilled (block does not contain a geometry axis movement or block contains an orientation movement), the pole axis movement is carried out in a separate block (same behavior as under 1).

The tens digits can have the following values (active if the start orientation differs from the pole orientation, but lies within the tolerance circle defined by TRAF05\_POLE\_LIMIT\_n):

00: The interpolation is carried out as an axis interpolation. The specified orientation path (large circle) is followed only if the pole axis (coincidentally) has the right position hat and the basic orientation is perpendicular to the 2nd rotary axis.

10: A block, which positions the two rotary axes to the point where the programmed large circle interpolation intersects with the tolerance circle defined by TRAF05\_POLE\_LIMIT\_n, is inserted before the block where the situation described occurs. In the original block, large circle interpolation is applied as of this point.

20: If the block preceding the block in which the described situation occurs contains a geometry axis movement but no orientation movement the necessary positioning movements of the two rotary axes are additionally carried out in this previous block. The residual movement in the original block is the same as that of value 10 of this machine data.

If one of the two conditions is not fulfilled (block does not contain a geometry axis movement or block contains an orientation movement), the pole axis movement is carried out in a separate block (same behavior as under 10.)

The behavior for the case that the orientation runs through the pole taper or ends within the pole taper is set with the hundreds digit of this MD.

The hundreds digit can have the following values:

000: A block with the orientation running within the pole taper is subdivided only if the start orientation is equal to the pole orientation (with POLE\_ORI\_MODE = 1) or is close to the pole orientation (with POLE\_ORI\_MODE = 10). If the pole orientation occurs at an arbitrary point in the block, the whole change in orientation is traversed by means of rotary axis interpolation. In general, this leads to a more or less significant deviation from the programmed orientation path.

100: If the programmed orientation path runs through the pole taper, the block is subdivided in up to 3 parts, so that there is a deviation from the orientation path only within the pole taper. Outside the pole taper, the orientation is interpolated exactly on the programmed orientation path.

The pole handling behavior with active ORIANGLE (interpolation of orientation in virtual axis angles) is set with the thousands digit of the MD.

0xxx: With this setting, the normal pole behavior is active even if ORIANGLE is active. If the transformation causes a switchover to axis interpolation due to a pole, then orientation is interpolated by means of the real rotary axes. This can result in considerable deviations from the programmed orientation path. Any different settings of the MD \$MC\_POLE\_ORI\_MODE are also effective. This means, for example, that by means of the setting \$MC\_POLE\_ORI\_MODE = 100, this behavior can be changed such that deviations from the programmed orientation path only occur within the pole taper.

1xxx: If ORIANGL is active, there is never a switchover to the interpolation of the orientation by means of real rotary axes. The orientation is always interpolated with virtual axis angles (e.g. Euler angle or RPY angle). Different settings of the MD \$MC\_POLE\_ORI\_MODE do not become effective. For example, with \$MC\_POLE\_ORI\_MODE = 1100 the division of the orientation movement, which was activated by the value 100, does not become effective. Therefore, if MD \$MC\_POLE\_ORI\_MODE = 1xxx, then the units, tens and hundreds digits are ignored.

With the ten thousands digit, it can be set as to whether for generic 5/6-axis transformation, alarm 14112 is output if the intermediate orientations lie in the orientation area of the kinematics that cannot be reached, however, the final orientation of the block is possible:

0xxxx: The intermediate orientations are checked, as to whether these can be reached. If an orientation characteristic is programmed, which goes through the area that cannot be reached, then alarm 14112 (programmed orientation path not possible) is output.

1xxxx: The intermediate orientations are checked as to whether these can be reached. However, an alarm is not output if the orientation runs through the area that cannot be reached, but rather, the orientation changes are performed using rotary axis interpolation. This can result in significant deviations of the orientation from the programmed orientation characteristic. The values of the units, tens, hundreds and thousands digits are added. If the thousands digit = 1, the remaining decimal places of the MD are not evaluated (with the exception of the ten thousands digit).

21110	X_AXIS_IN_OLD_X_Z_PLANE			EXP, C01, C09	M1,K2	
-	Coordinate system for automatic frame definition			BOOLEAN	PowerOn	
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:**

1 = With automatic definition of a frame (TOFRAME), the Z direction of which equals the current tool orientation, the new coordinate system is additionally rotated around the new Z axis so that the new X axis is in the old Z-X plane.

0 = With automatic definition of a frame (TOFRAME), the Z direction of which equals the current tool orientation, the new coordinate system is maintained as it results from the kinematics of the machine, i.e. it is assumed that the coordinate system is fixed to the tool and rotates with the tool (orientation).

From SW 5.3:

This machine data is only effective when the three lowest value decimal positions (units, tens, hundreds) of SD42980 \$SC\_TOFRAME\_MODE equal zero. Otherwise the frame definition is specified by SD42980 \$SC\_TOFRAME\_MODE.

MD irrelevant for:

No orientation programming

Related to:

MD21100 \$MC\_ORIENTATION\_IS\_EULER

Further references:

/PG/, Programming Guide, Fundamentals



21120	ORIAX_TURN_TAB_1			C07	F2,M1	
-	Definition of reference axes for orientation axes			BYTE	NEW CONF	
-						
-	3	1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3...	0	3	7/2	M

**Description:** Defines the assignment of the rotations of the orientation axes around the reference axes for each channel (definition 1).

This orientation description is activated with the G code ORIVIRT1

0: No rotation

1: Rotation around reference axis X

2: Rotation around reference axis Y

3: Rotation around reference axis Z

Example :

MD21120 \$MC\_ORIAX\_TURN\_TAB\_1[ 0 ] = 3 ; 1st ORI axis rotates around reference axis Z

MD21120 \$MC\_ORIAX\_TURN\_TAB\_1[ 1 ] = 2 ; 2nd ORI axis rotates around reference axis Y

MD21120 \$MC\_ORIAX\_TURN\_TAB\_1[ 2 ] = 1 ; 3rd ORI axis rotates around reference axis X

21130	ORIAX_TURN_TAB_2			C07	F2	
-	Definition of reference axes for orientation axes			BYTE	NEW CONF	
-						
-	3	1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3...	0	3	7/2	M

**Description:** Defines the assignment of the rotations of the orientation axes around the reference axes for each channel (definition 2).

This orientation description is activated with the G code ORIVIRT2

0: No rotation

1: Rotation around reference axis X

2: Rotation around reference axis Y

3: Rotation around reference axis Z

Example :

MD21120 \$MC\_ORIAX\_TURN\_TAB\_1[ 0 ] = 3 ; 1st ORI axis rotates around reference axis Z

MD21120 \$MC\_ORIAX\_TURN\_TAB\_1[ 1 ] = 2 ; 2nd ORI axis rotates around reference axis Y

MD21120 \$MC\_ORIAX\_TURN\_TAB\_1[ 2 ] = 1 ; 3rd ORI axis rotates around reference axis X

21132	ORI_DISP_IS_MODULO			C07	F2	
-	Modulo display of orientation axis positions			BOOLEAN	NEW CONF	
-						
-	3	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/7	M

**Description:** This MD is used to activate the modulo display of orientation axes.

This only impairs the displayed positions and not the possible programming or traversing range of these axes.

## 1.3 NC machine data

The modulo range is set using MD21134 \$MC\_ORI\_DISP\_MODULO\_RANGE and MD21136 \$MC\_ORI\_DISP\_MODULO\_RANGE\_START.

21134	ORI_DISP_MODULO_RANGE			C07	-	
degrees	Size of the modulo range for orientation axis display.			DOUBLE	NEW CONF	
-						
-	3	360.0, 360.0, 360.0, 360.0, 360.0, 360.0...	1.0	3600000000.0	7/7	M

**Description:** Defines the size of the modulo range for the display of orientation axis positions.  
This modulo range does not impair the programmable values of the positions nor the possible traversing range of orientation axes.

21136	ORI_DISP_MODULO_RANGE_START			C07	-	
degrees	Starting position of the modulo range for orientation axis display.			DOUBLE	NEW CONF	
-						
-	3	-180.0, -180.0, - 180.0, -180.0, -180.0, -180.0...	-	-	7/7	M

**Description:** Defines the start position for the modulo range used to display the positions of orientation axes.  
This only impairs the displayed positions, but not the possible programming or traversing range of these axes.

Example:

Start = 0 degree -> modulo range 0 <->360 degrees

Start = 180 degrees -> modulo range 180 <->540 degrees

Start = -180 degrees -> modulo range -180 <->180 degrees

21150	JOG_VELO_RAPID_ORI			C07	F2,R2	
rev/min	JOG rapid traverse for orientation axes			DOUBLE	Reset	
-						
-	3	10.0, 10.0, 10.0, 10.0, 10.0, 10.0...	-	-	7/2	M

**Description:** Velocity in JOG mode with rapid traverse override for orientation axes in the channel [degrees/min]

21155	JOG_VELO_ORI			C07	F2	
rev/min	Jog feedrate for orientation axes			DOUBLE	Reset	
-						
-	3	2.0, 2.0, 2.0, 2.0, 2.0, 2.0...	-	-	7/2	M

**Description:** Velocity in JOG mode for orientation axes in the channel

21158	JOG_JERK_ORI			C07	F2	
m/s <sup>3</sup>	Jerk for jogging of orientation axes			DOUBLE	Reset	
-						
-	3	100., 100., 100., 100., 100., 100....	1.e-9	-	7/2	M

**Description:** The jerk limit value limits the change in acceleration of the orientation axes in SOFT mode when jogging. The acceleration divided by the jerk limit value results in a time period during which the acceleration is changed.

The jerk limitation during jogging of orientation axes is activated by the machine data \$MC\_JOG\_JERK\_ORI\_ENABLE = 1 (SOFT), and deactivated by \$MC\_JOG\_JERK\_ORI\_ENABLE = 0 (BRISK).

Not relevant for:

Fault conditions that cause a quick stop.

21159	JOG_JERK_ORI_ENABLE		C07	F2
-	Jogging of orientation axes with SOFT		BOOLEAN	Reset
-				
-	3	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	7/2 M

**Description:** The jerk limitation function during jogging of orientation axes is enabled.  
FALSE: no jerk limitation (BRISK)  
TRUE: jerk limitation (SOFT)

21160	JOG_VELO_RAPID_GEO		C07	F2
mm/min	JOG rapid traverse for geometry axes		DOUBLE	Reset
-				
-	3	10000., 10000.0, 10000., 10000., 10000.0, 10000....	-	7/2 M

**Description:** Velocity in JOG mode with rapid traverse override for geometry axes in the channel (mm/min)

21165	JOG_VELO_GEO		C07	F2
mm/min	Jog feedrate for geometry axes		DOUBLE	Reset
-				
-	3	1000., 1000., 1000., 1000., 1000., 1000....	-	7/2 M

**Description:** JOG velocity for geometry axes in the channel (mm/min)

21166	JOG_ACCEL_GEO		C07, A04	F2
m/s <sup>2</sup>	Acceleration for geometry axes		DOUBLE	Reset
-				
-	3	.0, .0, .0, .0, .0, .0, .0, .0, .0...	-	7/2 M

**Description:** Acceleration of the geometry axes when traversing in Jog mode.  
If the machine data has the value zero, the value of the machine data \$MA\_JOG\_MAX\_ACCEL[<axis>] is used.

21168	JOG_JERK_GEO		C07, A04	F2
m/s <sup>3</sup>	Jerk for jog mode of geometry axes		DOUBLE	Reset
-				
-	3	0., 0., 0., 0., 0., 0., 0., 0., 0...	1.e-9	7/2 M

**Description:** The jerk limit value limits the change in acceleration of the geometry axes in SOFT mode when jogging. The acceleration divided by the jerk limit value results in a time period during which the acceleration is changed.  
If the machine data has the value zero, the value of the machine data \$MA\_JOG\_MAX\_JERK[<axis>] is used.

1.3 NC machine data

Jerk limitation during jogging of geometry axes is activated by the machine data \$JOG\_AND\_POS\_JERK\_ENABLED[<axis> = 1 (SOFTA) of the underlying machine axes, and it is deactivated by \$JOG\_AND\_POS\_JERK\_ENABLED[<axis>] = 0 (BRISKA), or by means of the NC commands SOFTA, DRIVEA or BRISKA.

Not relevant for:

Fault conditions that cause a rapid stop.

21170	ACCEL_ORI	C07	F2
rev/s <sup>2</sup>	Acceleration for ORI axes	DOUBLE	NEW CONF
-			
-	3	.05, .05, .05, .05, .05, .05...	-
			7/2 M

**Description:** Acceleration for orientation axes in the channel

21180	ROT_AX_SWL_CHECK_MODE	C07	F2
-	Check of software limits for orientation axes	DWORD	NEW CONF
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
			112 7/7 M

**Description:** This machine data is evaluated only with the generic 5-axis transformation. If the block preparation shows that the path programmed in the direction programming would lead to a violation of the software limits of the orientation axes, this machine data determines how the motions of the rotary axes have to be modified.

The units digit of the MD is used to determine how alternative end positions of the rotary axes are created if the software limits would be violated. The tens digit is used to determine how the axes approach these end positions. The hundreds digit is used to activate an automatic limitation of the axis that swivels through the pole (non-pole axis).

Meaning of the units digit:

0: The path is not modified. Alarm 10720 (SW\_LIMITSWITCH) is output if it is not possible to travel along the shortest path.

1: If the initially determined orientation path would violate the limits of the orientation axes, an attempt is made to modify the end points so that a motion becomes possible.

The first attempt uses the second solution. (There are usually two solutions to the conversion: orientation ==> angle of axis). If this solution would also violate the axis limits, an attempt is made to find a permissible solution by modifying both rotary axes by multiples of 360 degrees in both solutions.

The modifications of end positions described will only be performed if axis interpolation of rotary axes is active.

2: Monitoring and possibly modifications of the rotary-axis positions are the same as those when the machine data has the value 1.

However, modifications are also permissible if vector interpolation (large-circle interpolation, taper circumference interpolation, etc.) is active. If, in such a case, the rotary-axes positions would have to be modified, there is a switch to axis interpolation. The originally programmed orientation path will then usually not be followed.

Meaning of the tens digit:

0x: The orientation axes travel simultaneously to their possible end positions. There may be larger or smaller deviations from the original orientation path.

1x: If possible, the orientation is first rotated in the pole direction. In the pole position, the pole axis is then positioned so that the final orientation can be approached by rotating the orientation from the pole position into the programmed direction. The originally programmed orientation path is then followed.

Meaning of the hundreds digit:

0xx: The range of the non-pole axis is determined by its software limits or working area limitations.

1xx: The range of the non-pole axis is limited either in the positive or negative travel range. The possible range is limited by the larger of the absolute positive and negative values.

Examples:

1. MD36100 \$MA\_POS\_LIMIT\_MINUS[AX5] = -5.0 and MD36110  
\$MA\_POS\_LIMIT\_PLUS[AX5] = 135.0, the possible range of axis AX5 is 0 ... 135.0

2. MD36100 \$MA\_POS\_LIMIT\_MINUS[AX5] = -100.0 and MD36110  
\$MA\_POS\_LIMIT\_PLUS[AX5] = 10.0, the possible range of axis AX5 is -100.0 ... 0.0

3. MD36100 \$MA\_POS\_LIMIT\_MINUS[AX5] = 5.0 und MD36110  
\$MA\_POS\_LIMIT\_PLUS[AX5] = 120.0, the possible range is 5.0 ... 120.0, there is no automatic limitation of the travel range.

21186	TOCARR_ROT_OFFSET_FROM_FR		C01, C07	F2	
-	Offset of TOCARR rotary axes from WO		BOOLEAN	Immediately	
-					
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/2 M

**Description:** Rotary axes offset for the orientable tool holder is automatically accepted from the work offset activated on activation of the orientable tool holder for the rotary axes.

21190	TOFF_MODE		C08	F2,2.4	
-	Mode of correction in tool direction		BYTE	Reset	
-					
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/2 M

**Description:** This machine data specifies the online correction mode in tool direction via \$AA\_TOFF[ ].

Bit 0: Behavior of \$AA\_TOFF in case of a RESET

0: \$AA\_TOFF is deselected in case of a RESET

1: \$AA\_TOFF is maintained also after RESET

Bit 1: Effect of the value assignment on the 1st component of \$AA\_TOFF[ ]

0: absolute value

1: incremental value (integrator)

Bit 2: Effect of the value assignment on the 2nd component of \$AA\_TOFF[ ]

0: absolute value

1: incremental value (integrator)

Bit 3: Effect of the value assignment on the 3rd component of \$AA\_TOFF[ ]

0: absolute value

1: incremental value (integrator)

21194	TOFF_VELO	C08	F2,2.4
mm/min	Feedrate for online correction in tool direction	DOUBLE	NEW CONF
-			
-	3	0., 0., 0., 0., 0., 0., 0., 0., 0....	-
			7/2
			M

**Description:** Feedrate for online correction in tool direction [ mm/min ] via \$AA\_TOFF[ ]

21196	TOFF_ACCEL	C08	2.4
m/s <sup>2</sup>	Acceleration for online correction in tool direction	DOUBLE	NEW CONF
-			
-	3	100., 100., 100., 100., 100., 100....	1.0e-6
			7/2
			M

**Description:** Acceleration for online correction in tool direction [ m/s\*\*2 ] via \$AA\_TOFF[ ]

21198	ORI_TRAFO_ONLINE_CHECK_LIM	C07	F2
mm	Activation limit of the realtime dynamic monitoring	DOUBLE	NEW CONF
-			
-	-	1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0...	-
			7/2
			M

**Description:** If, in the case of an orientation transformation, the effective BCS position or the effective tool length deviates from the values applied in preprocessing by more than the value defined in this machine data (e.g. due to superimposed movement or the activation of online tool length offset), real-time limiting of the dynamic response is activated.

21199	ORI_TRAFO_ONLINE_CHECK_LIMR	C07	F2
degrees	Activation limit for real-time monitoring of dynamic response, rotary axes	DOUBLE	NEW CONF
-			
-	-	1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0...	-
			7/2
			M

**Description:** If, in the case of an orientation transformation, the effective BCS position of one of the rotary axes involved in the transformation deviates from the values applied in preprocessing by more than the value defined in this machine data (e.g. due to superimposed movement), real-time limiting of the dynamic response is activated.

21200	LIFTFAST_DIST	C09	K1,V1,2.6.6.1
mm	Traversing distance on rapid lift from contour	DOUBLE	PowerOn
-			
-	-	0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1...	-
			7/2
			M

**Description:** The machine data determines the absolute value of the traverse movement for rapid lift. The direction of the traverse movement is defined in the part program by the command ALF.

References:

/PA/, Programming Guide: Fundamentals

21202	LIFTFAST_WITH_MIRROR		C09	K1	
-	Rapid retract with mirroring		BOOLEAN	PowerOn	
-					
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/2 M

**Description:**

1: When determining the retraction direction, if mirroring of the contour is active then the retraction direction is also mirrored. Mirroring of the retraction direction only refers to the directional components vertical to the tool direction.

0: Mirroring of the contour is NOT taken into account when determining the retraction direction.

21204	LIFTFAST_STOP_COND		C09	M3	
-	Stop behavior with fast retraction		DWORD	NEW CONF	
-					
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/2 M

**Description:**

Specifies the stop behavior of the liftfast motion under different stop conditions

Bit0: Axial NC/PLC interface signal DB31, ... DB4.3 (Axial feed stop / Spindle stop) or context-sensitive interpolator stop

=0 Stop of the retraction motion in case of an axial feed stop or context-sensitive interpolator stop

=1 No stop of the retraction motion in case of an axial feed stop or context-sensitive interpolator stop

Bit1: Feed disable in channel NC/PLC interface signal DB21-30 DBX6.0 (Feed stop)

=0 Stop of the retraction motion in case of the feed stop in the channel

=1 No stop of the retraction motion in case of the feed stop in the channel

21210	SETINT_ASSIGN_FASTIN		C01, C09	-	
-	HW assignment of ext. NCK input byte for NC progr. interrupts		DWORD	PowerOn	
-					
-	-	1, 1, 1, 1, 1, 1, 1, 1...	-	-	7/2 M

**Description:**

HW assignment of the fast input byte for NC program interrupts

Bit 0 to 7:  
Number of input used

Bit 16 to 23:  
Mask of signals that the channel is not to evaluate

Bit 24 to 31:  
Mask of signals that are to be evaluated in inverted form

Bit set: Interrupt initiated by falling edge.

Possible inputs:

1:  
On board-inputs of the 840D (4 fast + 4 bits via VDI default)

2 - 5:  
External digital inputs (fast NCK I/Os or VDI default)

128 - 129:  
Comparator byte (results from fast analog inputs or VDI default)

21220	MULTFEED_ASSIGN_FASTIN	C01, C09	A4, V1
-	Assignment of the NCK I/Os for 'several feedrates in the block'	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-
-	-	-	7/2 M

**Description:** In MD21220 \$MC\_MULTFEED\_ASSIGN\_FASTIN (assignment of the input bytes of the NCK I/Os for "Multiple feeds in one block"), at most two digital input bytes or comparator input bytes of the NCK I/Os can be assigned to the input byte for the "Multiple feeds in one block" function.

Furthermore, the assigned input signals can be inverted with the machine data.

The MD is coded as follows:

Bit 0-7:

No. of 1st digital input byte or comparator input byte used

Bit 8 - 15:

No. of 2nd digital input byte or comparator input byte used

Bit 16 - 23:

Inversion mask for describing the 1st byte

Bit 24 - 31:

Inversion mask for describing the 2nd byte

Bit=0: do not invert

Bit=1: invert

The number for the digital inputs should be specified as follows:

1: for the on-board byte

2 - 5: for external bytes

The number for a comparator input byte should be specified as follows:

128: for comparator 1 (corresponds to 80Hex)

129: for comparator 2 (corresponds to 81Hex)

21230	MULTFEED_STORE_MASK	C01, C09	V1
-	Memory response for 'several feedrates in the block'	BYTE	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-
-	-	-	7/2 M

**Description:** The priority of the signals for feeds F2 - F7 of the "Multiple feeds in one block" function decreases as the bit number increases in the input byte. The highest priority signal determines the current feed.

The MD21230 \$MC\_MULTFEED\_STORE\_MASK (store input signals of the "Multiple feeds in one block" function) can be used to specify the response when the highest priority input drops out:

Set bit 2 - 7 has the effect that the associated feed (F2 to F7) that has been selected by the highest priority input signal in each case is retained, even if the input signal drops out and a lower priority is present.

The MD is coded as follows:

Bit 0 - 1: No significance

Bit 2 - 7: Storage response of the feed signals

Bit 8 - 31: Reserved



21240	PREVENT_SYNACT_LOCK_CHAN			C01, C09	-	
-	Protected synchronized actions			DWORD	PowerOn	
-						
-	2	-1, -1, -1, -1, -1, -1, -1, -1, -1, -1, -1, -1...	-1	255	7/2	M

**Description:** The machine data specifies a range of synchronized action IDs. Synchronized actions with IDs in this range cannot be overwritten, canceled or locked via synchronized actions.

With 0.0, there is no range of protected synchronized actions. The values are read as absolute values; the upper value and the lower value can be indicated in any order.

If a value is configured with -1, the configuration of the general machine data becomes active.

Note:

During the creation of protected static synchronized actions, the protection should be canceled; otherwise, a power ON would be necessary for each change in order to be able to redefine the logic.

21300	COUPLE_AXIS_1			C09	S3	
-	Synchron. spindle pair def, mach. axis no: follow. spindle [0], lead.sp [1]			BYTE	PowerOn	
-						
-	2	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	31	7/2	M

**Description:** One pair of synchronous spindles per NC channel can be defined in a fixed configuration with this machine data.

The machine axis numbers (channel-specific MD20070 \$MC\_AXCONF\_MACHAX\_USED) applicable in the NC channel must be entered for the following spindle [n=0] and the leading spindle [n=1].

The coupling is not regarded as configured if values of "0" are entered, thus leaving 2 couplings to be configured freely via the NC part program.

MD irrelevant for:  
User-defined coupling

Related to:

- Channel-specific MD21310 \$MC\_COUPLING\_MODE\_1  
(type of coupling in synchronous spindle mode)
- Channel-specific MD21340 \$MC\_COUPLE\_IS\_WRITE\_PROT\_1  
(coupling parameters cannot be changed)
- Channel-specific MD21330 \$MC\_COUPLE\_RESET\_MODE\_1  
(coupling cancelation response)
- Channel-specific MD21320 \$MC\_COUPLE\_BLOCK\_CHANGE\_CTRL\_1  
(block change response in synchronous spindle mode)
- SD42300 \$SC\_COUPLE\_RATIO\_1  
(speed ratio parameters for synchronous spindle mode)

21310	COUPLING_MODE_1	C03, C09	S3
-	Type of coupling in synchronous spindle operation	BYTE	PowerOn
-			
-	-	1, 1, 1, 1, 1, 1, 1, 1...	0
-		2	7/2
			M

**Description:** This machine data determines the type of coupling for the fixed coupling configuration defined with machine data COUPLE\_AXIS\_1[n].

1: Setpoint coupling activated.

With a setpoint coupling, the reference variable for the following spindle is calculated from the position setpoint of the leading spindle, thus allowing the setpoints for the FS and LS to be input simultaneously. This has a particularly positive effect on the spindle synchronism during acceleration and deceleration processes.

A setpoint coupling thus achieves better command behavior than an actual-value coupling.

When a setpoint coupling is used, the following conditions must be fulfilled before synchronous mode is activated:

- The LS must be assigned to the same NC channel as the FS
- The FS and LS must be in position control mode (SPCON)
- The FS and LS must have the same dynamic control response

0: Actual-value coupling activated.

With an actual-value coupling, the command variable for the following spindle is calculated from the position actual value of the leading spindle. With this type of coupling, the following drive must be significantly more dynamic than the leading drive, but never vice versa.

The actual-value coupling can be used, for example, in the following cases:

- The LS must be assigned to a different NC channel than the FS.
- For leading spindles which are not suitable for position control.
- In cases where the dynamic control response of the leading spindle is considerably slower than that of the following spindle. As soon as the actual-value coupling is active, the NC/PLC interface signal DB31, ... DBX98.2 (Actual-value coupling) for the FS is set to "1-signal".

2: Speed coupling activated.

Internally, the speed coupling is a setpoint coupling. Lower dynamic requirements are placed on the FS and LS. A defined relation between the positions of the FS and LS cannot be established.

A speed coupling is used in the following cases:

- LS and/or FS are not in position control.
- There are no measuring systems present.

The coupling type can be altered in the NC part program when the coupling is deactivated by means of language instruction COUNDEF provided this option has not been inhibited by the channel-specific MD21340

\$MC\_COUPLE\_IS\_WRITE\_PROT\_1. However, the parameterized value of channel-specific MD21310 \$MC\_COUPLING\_MODE\_1 remains unchanged.

MD irrelevant to:

User-defined coupling

Related to:

Channel-specific MD21300 \$MC\_COUPLE\_AXIS\_1  
(definition of pair of synchronous spindles)

Channel-specific MD21340 \$MC\_COUPLE\_IS\_WRITE\_PROT\_1  
(write-protection for configured coupling parameters)

NC/PLC interface signal DB31, ... DBX98.2 (Actual-value coupling)

21320	COUPLE_BLOCK_CHANGE_CTRL_1			C09	S3	
-	Block change behavior in synchronous spindle operation			BYTE	PowerOn	
-						
-	-	3, 3, 3, 3, 3, 3, 3, 3...	0	3	7/2	M

**Description:** This machine data determines the condition under which a block change has to be executed when synchronous mode is activated for the fixed coupling configuration defined in the channel-specific machine data COUPLE\_AXIS\_ [n]. The following options are available:

- 0: Block change is enabled immediately
- 1: Block change in response to "Fine synchronization"
- 2: Block change in response to "Coarse synchronization"
- 3: Block change in response to IPOSTOP (i.e. after setpoint-based synchronization)

The block change response can be altered in the NC part program with language instruction COUPDEF provided this option is not inhibited by the channel-specific MD21340 \$MC\_COUPLE\_IS\_WRITE\_PROT\_1. However, the parameterized value of the channel-specific MD21320 \$MC\_COUPLE\_BLOCK\_CHANGE\_CTRL\_1 remains unchanged.

The selected block change response remains valid even when the velocity ratio is changed or a defined angular offset is programmed while the coupling is active.

MD irrelevant for:

User-defined coupling

Related to:

Channel-specific MD21300 \$MC\_COUPLE\_AXIS\_1  
(definition of pair of synchronous spindles)

Channel-specific MD21340 \$MC\_COUPLE\_IS\_WRITE\_PROT\_1  
(coupling parameters cannot be changed)

Channel-specific MD37200 \$MA\_COUPLE\_POS\_TOL\_COARSE or MD37220  
\$MA\_COUPLE\_VELO\_TOL\_COARSE  
(threshold value for coarse synchronization)

Channel-specific MD37210 \$MA\_COUPLE\_POS\_TOL\_FINE or MD37230  
\$MA\_COUPLE\_VELO\_TOL\_FINE  
(threshold value for fine synchronization)

21330	COUPLE_RESET_MODE_1			C03, C09	S3,K1	
-	Coupling cancelation behavior			DWORD	PowerOn	
-						
-	-	1, 1, 1, 1, 1, 1, 1, 1...	0	0x3FF	7/2	M

**Description:** This machine data defines the behavior of the synchronous mode for the pair of synchronous spindles configured with machine data COUPLE\_AXIS\_1[n].

Bit 0=0:

Synchronous mode remains active with a new program start and, as long as the control remains switched on, can be canceled only with COUPOF.

Bit 0=1:

Synchronous mode is canceled with program start (from the reset condition).

Bit 1=0:

Synchronous mode remains active even with program end and reset and, as long as the control remains switched on, can be canceled only with COUPOF.

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Bit 1=1:  
Synchronous mode is canceled with program end or RESET.

Bit 5=1:  
The configured data are activated with program start.

Bit 6=1:  
The configured data are activated with program end or RESET.

Bit 9=1:  
Synchronous mode is switched on with program start.

Note:  
Synchronous mode is not deselected with NC Start after NC Stop.

MD irrelevant to:  
User-defined coupling

Related to:  
Channel-specific MD21300 \$MC\_COUPLE\_AXIS\_1 (definition of pair of synchronous spindles)  
NC/PLC interface signal DB31, ... DBX84.4 (Active spindle mode - synchronous mode)

21340	COUPLE_IS_WRITE_PROT_1	C09	S3
-	Coupling parameters cannot be altered	BOOLEAN	PowerOn
-			
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-
			7/2
			M

**Description:** This machine data defines whether or not the coupling parameters (speed ratio, block change response, coupling type) for the pair of synchronous spindles configured with channel-specific machine data COUPLE\_AXIS\_1[n] may be altered by the NC part program.

1: Coupling parameters may not be altered by the NC program (write-protection active)

An alarm message is generated if an attempt is made to change the parameters.

0: NC part program may alter coupling parameters using language instruction COUPDEF.

MD irrelevant for:  
User-defined coupling

Related to:  
Channel-specific MD21300 \$MC\_COUPLE\_AXIS\_1 (definition of pair of synchronous spindles)  
Channel-specific MD21310 \$MC\_COUPLING\_MODE\_1 (type of coupling in synchronous spindle mode)  
Channel-specific MD21330 \$MC\_COUPLE\_RESET\_MODE\_1 (coupling cancelation response)  
Channel-specific MD21320 \$MC\_COUPLE\_BLOCK\_CHANGE\_CTRL\_1 (block change response in synchronous spindle mode)  
SD42300 \$SC\_COUPLE\_RATIO\_1 (speed ratio parameters for synchronous spindle mode)

21380	ESR_DELAY_TIME1	EXP, N09	M3
s	Delay time ESR axes	DOUBLE	NEW CONF
-			
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	- - 7/2 M

**Description:** When, for example, an alarm occurs, this MD can be used to delay deceleration in order, for example, to enable a retraction from the tooth gap (ESR) in gear wheel machining.

21381	ESR_DELAY_TIME2	EXP, N09	M3
s	ESR time for IPO controlled braking	DOUBLE	NEW CONF
-			
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	- - 7/2 M

**Description:** When time MD21380 \$MC\_ESR\_DELAY\_TIME1 has expired, the time (MD21381 \$MC\_ESR\_DELAY\_TIME2) specified for interpolatory braking is still available. When time MD21381 \$MC\_ESR\_DELAY\_TIME2 has expired, rapid deceleration with following tracking is initiated.

21500	TRACLG_GRINDSPI_VERT_OFFSET	C07	-
mm	Vertical position offset of grinding axis in centerless grinding	DOUBLE	PowerOn
-			
-	-	0., 0., 0., 0., 0., 0., 0....	- - 7/2 M

**Description:** The vertical offset of the grinding axis is specified in this MD.

21501	TRACLG_GRINDSPI_HOR_OFFSET	C07	-
mm	Horiz. position offset of grinding axis in centerless grinding	DOUBLE	PowerOn
-			
-	-	0., 0., 0., 0., 0., 0., 0....	- - 7/2 M

**Description:** Horizontal position offset of the grinding axis in centerless grinding. The setting in this MD is significant only when MD: TRAF0\_AXES\_IN\_n[0] = 0, i.e. no axis is programmed for the grinding wheel.

21502	TRACLG_CTRLSPI_VERT_OFFSET	C07	-
mm	vert. position offset of regulating axis in centerless grinding	DOUBLE	PowerOn
-			
-	-	0., 0., 0., 0., 0., 0., 0....	- - 7/2 M

**Description:** The vertical offset for the regulating axis is specified in this MD.

21504	TRACLG_SUPPORT_VERT_OFFSET	C07	-
mm	Vertical offset of work blade in centerless grinding	DOUBLE	PowerOn
-			
-	-	0., 0., 0., 0., 0., 0., 0....	- - 7/2 M

**Description:** Y offset for work blade  
Rule:  $X(0) = Y(\text{offset}) + Q1 < Y(\text{direction vector} Q1) + Q2 < Y(\text{direction vector} Q2)$

21506	TRACLG_SUPPORT_HOR_OFFSET	C07	S8
mm	Horizontal offset of work blade in centerless grinding	DOUBLE	PowerOn
-			
-	-	0., 0., 0., 0., 0., 0., 0., 0., 0....	- - 7/2 M

**Description:** X offset for work blade  
Rule:  $X(0) = X(\text{offset}) + Q1 < X(\text{direction vector } Q1) + Q2 < X(\text{direction vector } Q2)$

21508	TRACLG_VERT_DIR_SUPPORTAX_1	C07	-
-	Vertical component of work blade direction vector for Q1	DOUBLE	PowerOn
-			
-	-	1., 1., 1., 1., 1., 1., 1., 1., 1....	- - 7/2 M

**Description:** Y component of blade direction vector for Q1  
Rule:  $Y(0) = Y(\text{offset}) + Q1 < Y(\text{direction vector } Q1) + Q2 < Y(\text{direction vector } Q2)$

21510	TRACLG_HOR_DIR_SUPPORTAX_1	C07	-
-	Horizontal component of work blade direction vector for Q1	DOUBLE	PowerOn
-			
-	-	0., 0., 0., 0., 0., 0., 0., 0., 0....	- - 7/2 M

**Description:** X component of blade direction vector for Q1  
Rule:  $X(0) = X(\text{offset}) + Q1 < X(\text{direction vector } Q1) + Q2 < X(\text{direction vector } Q2)$

21512	TRACLG_VERT_DIR_SUPPORTAX_2	C07	-
-	Vertical component of work blade direction vector for Q2	DOUBLE	PowerOn
-			
-	-	0., 0., 0., 0., 0., 0., 0., 0., 0....	- - 7/2 M

**Description:** Y component of blade direction vector for Q2  
Rule:  $Y(0) = Y(\text{offset}) + Q1 < Y(\text{direction vector } Q1) + Q2 < Y(\text{direction vector } Q2)$

21514	TRACLG_HOR_DIR_SUPPORTAX_2	C07	-
-	Horizontal component of work blade direction vector for Q2	DOUBLE	PowerOn
-			
-	-	1., 1., 1., 1., 1., 1., 1., 1., 1....	- - 7/2 M

**Description:** X component of blade direction vector for Q2  
Rule:  $X(0) = X(\text{offset}) + Q1 < X(\text{direction vector } Q1) + Q2 < X(\text{direction vector } Q2)$

21516	TRACLG_SUPPORT_LEAD_ANGLE	C07	-
degrees	Lead angle of work blade in centerless grinding	DOUBLE	PowerOn
-			
-	-	0., 0., 0., 0., 0., 0., 0., 0., 0....	-90. 90. 7/2 M

**Description:** The angle of lead of the work blade (a) is entered here.

21518	TRACLG_CONTACT_UPPER_LIMIT	C07	-
mm	Upper contact limit of work blade with work in centerl. grinding	DOUBLE	PowerOn
-			
-	-	0., 0., 0., 0., 0., 0., 0., 0....	- - 7/2 M

**Description:** It is necessary to specify the upper contact limit of the blade with the part to be ground (d1) for the purpose of monitoring the support range limits.  
 Related to:  
 MD21520 \$MC\_TRACLG\_CONTACT\_LOWER\_LIMIT

21520	TRACLG_CONTACT_LOWER_LIMIT	C07	-
mm	Lower contact limit of work blade with work in centerl. grinding	DOUBLE	PowerOn
-			
-	-	0., 0., 0., 0., 0., 0., 0., 0....	- - 7/2 M

**Description:** It is necessary to specify the lower contact limit of the blade with the part to be ground (d2) for the purpose of monitoring the support range limits.  
 Related to:  
 MD: TRACLG\_CONTACT\_UPPER\_LIMIT

21522	TRACLG_GRINDSPI_NR	C07	-
-	Definition of grinding spindle for centerless grinding	BYTE	PowerOn
-			
-	-	2, 2, 2, 2, 2, 2, 2, 2...	1 20 7/2 M

**Description:** The number of the grinding spindle is specified in this MD.

21524	TRACLG_CTRLSPI_NR	C07	-
-	Definition of regulating spindle for centerless grinding	BYTE	PowerOn
-			
-	-	1, 1, 1, 1, 1, 1, 1, 1...	1 20 7/2 M

**Description:** The number of the regulating spindle is specified in this MD.

21526	TRACLG_G0_IS_SPECIAL	C07	-
-	Special logic for G0 in centerless grinding	BOOLEAN	PowerOn
-			
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	- - 7/2 M

**Description:** This MD can be used to define how the speed of the regulating wheel must respond in the case of transitions from motion blocks with G0 and without G0 (see table).  
 TRACLG\_G0\_IS\_SPECIAL = 1:  
 On transition from a motion block with G0 to one without G0, the speed of the regulating wheel is increased during the G0 block to the desired initial speed in the block without G0.  
 TRACLG\_G0\_IS\_SPECIAL = 0:  
 The speed of the regulating wheel is controlled only for motion blocks without G0 (the transitions from a motion block with G0 to one without G0 are not taken into account).





22020	AUXFU_ASSIGN_EXTENSION			C04	H2,S1	
-	Auxiliary function extension			DWORD	PowerOn	
-						
-	255	0, 0...	-1	99	7/2	M

**Description:** See MD22010 \$MC\_AUXFU\_ASSIGN\_TYPE[n] (auxiliary function type)  
Special cases:  
With the spindle functions M3, M4, M5, M19, M70, M40, M41, M42, M43, M44, M45 and S,  
the spindle number is output to the PLC in the auxiliary function extension.

22030	AUXFU_ASSIGN_VALUE			C04	H2,S1	
-	Auxiliary function value			DWORD	PowerOn	
-						
-	255	0, 0...	-	-	7/2	M

**Description:** See MD22010 \$MC\_AUXFU\_ASSIGN\_TYPE[n] (auxiliary function type)

22035	AUXFU_ASSIGN_SPEC			C04	H2	
-	Output specification			DWORD	PowerOn	
-						
-	255	0, 0...	-	-	7/2	M

**Description:** Specification of the output behavior of the user-defined auxiliary functions.  
Bit 0 = 1Acknowledgment "normal" after an OB1 cycle  
Bit 1 = 1Acknowledgment "quick" with OB40  
Bit 2 = 1No predefined auxiliary function  
Bit 3 = 1No output to the PLC  
Bit 4 = 1Spindle reaction after acknowledgment by the PLC  
Bit 5 = 1Output before the motion  
Bit 6 = 1Output during the motion  
Bit 7 = 1Output at block end  
Bit 8 = 1No output after block search types 1, 2, 4  
Bit 9 = 1Collection during block search type 5 (SERUPRO)  
Bit 10 = 1 No output during block search type 5 (SERUPRO)  
Bit 11 = 1Cross-channel auxiliary function (SERUPRO)  
Bit 12 = 1Output via synchronized action  
Bit 13 = 1 Implicit auxiliary function  
Bit 14 = 1 Active M01  
Bit 15 = 1 No output during running-in test  
Bit 16 = 1 Nibbling off  
Bit 17 = 1 Nibbling on  
Bit 18 = 1 Nibbling

22037	AUXFU_ASSIGN_SIM_TIME		C04	H2,S1
-	Acknowledgment time		DWORD	PowerOn
-				
-	255	0, 0...	0	0x7FFFFFFF 7/2 M

**Description:** Acknowledgment time for auxiliary functions in ms.  
See MD22010 \$MC\_AUXFU\_ASSIGN\_TYPE[n] (auxiliary function type)

22040	AUXFU_PREDEF_GROUP		C04	H2
-	Predefined auxiliary function groups		DWORD	PowerOn
-				
-	301	1, 1, 1, 1, 1, 1, 2, 2, 2, 2, 2, 4, 4, 4, 4, 4, 4, 3, 1, 1, 1...	0	168 7/2 M

**Description:** Group assignment of predefined auxiliary functions.  
The predefined groups cannot be changed for indices 0, 1, 2, 3, 4, 22, 23, 24.

22050	AUXFU_PREDEF_TYPE		C04	H2
-	Predefined auxiliary function type		STRING	PowerOn
-				
-	301	"M", "M", "M", "M", "M", "M", "M", "M", "M", "M", "M", "M", "M"...	-	- 7/2 M

**Description:** The address codes of the predefined auxiliary functions are fix.  
This setting cannot be changed!

22060	AUXFU_PREDEF_EXTENSION		C04	H2
-	Predefined auxiliary function extension		DWORD	PowerOn
-				
-	301	0, 0, 0, 0, 0, 0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 0, 0, 0...	-1	99 7/2 M

**Description:** Address extension for predefined auxiliary functions:  
This setting can be changed only for indices 5 to 17 and 21!

22070	AUXFU_PREDEF_VALUE		C04	H2
-	Predefined auxiliary function value		DWORD	PowerOn
-				
-	301	0, 1, 2, 17, 30, 6, 3, 4, 5, 19, 70, 40, 41, 42, 43, 44, 45, -1...	-	- 7/2 M

**Description:** Value of predefined auxiliary functions.  
This setting cannot be changed!

22080	AUXFU_PREDEF_SPEC			C04	H2,K1	
-	Output specification			DWORD	PowerOn	
-						
-	301	0x81, 0x81, 0x81, 0x81, 0x81, 0x21, 0x21, 0x21, 0x21, 0x21...	-	-	7/2	M

**Description:** Specification of the output behavior of the predefined auxiliary functions.

- Bit 0 = 1Acknowledgment "normal" after an OB1 cycle
- Bit 1 = 1Acknowledgment "quick" with OB40
- Bit 2 = 1No predefined auxiliary function
- Bit 3 = 1No output to the PLC
- Bit 4 = 1Spindle reaction after acknowledgment by the PLC
- Bit 5 = 1Output before the motion
- Bit 6 = 1Output during the motion
- Bit 7 = 1Output at block end
- Bit 8 = 1No output after block search types 1, 2, 4
- Bit 9 = 1 Collection during block search type 5 (SERUPRO)
- Bit 10 = 1No output during block search type 5 (SERUPRO)
- Bit 11 = 1Cross-channel auxiliary function (SERUPRO)
- Bit 12 = 1Output via synchronized action
- Bit 13 = 1 Implicit auxiliary function
- Bit 14 = 1 Active M01
- Bit 15 = 1 No output during running-in test
- Bit 16 = 1 Nibbling off
- Bit 17 = 1 Nibbling on
- Bit 18 = 1 Nibbling

22090	AUXFU_PREDEF_SIM_TIME			C04	H2,S1	
-	Acknowledgment time			DWORD	PowerOn	
-						
-	301	0, 0...	0	0x7FFFFFFF	7/2	M

**Description:** Acknowledgment time for auxiliary functions in ms.

See MD22010 \$MC\_AUXFU\_PREDEF\_TYPE[n] (auxiliary function type)

22100	AUXFU_QUICK_BLOCKCHANGE			C04	H2	
-	Block change delay with quick auxiliary functions.			DWORD	PowerOn	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	1	7/2	M

**Description:** Block change is not delayed with quick auxiliary functions.

0: With the quick auxiliary function output the block change is delayed until acknowledgement by the PLC (OB40).

1: With the quick auxiliary function output to the PLC the block change is not delayed.

MD irrelevant for:

Auxiliary functions with normal acknowledgement

References:  
/FBSY/, Synchronized Actions

22110	AUXFU_H_TYPE_INT	C11, C04	H2, K1
-	Data format of H auxiliary functions (integer/real)	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0   1   7/2   M

**Description:** 0: The values of H auxiliary functions are present in floating point format.  
The maximum value range is +/-3.4028 ex 38.  
1: The value of H auxiliary functions is rounded and changed to an integer.  
The basic program in the PLC must interpret the value as an integer.  
The maximum value range is -2147483648 to 2147483647.

22200	AUXFU_M_SYNC_TYPE	C04	H2, K1, 2, 4
-	Output time of M functions	BYTE	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0   3   7/2   M

**Description:** Synchronization of the M auxiliary functions with regard to a simultaneously programmed axis motion.  
0 = Output before motion  
1 = Output during motion  
2 = Output at block end  
3 = No output to the PLC (therefore no block change delay)  
Notice:  
An auxiliary function output specification configured by MD22080 \$MC\_AUXFU\_PREDEF\_SPEC[ preIndex ], MD22035 \$MC\_AUXFU\_ASSIGN\_SPEC[ auxIndex ] or  
A group output specification configured by MD11110 \$MN\_AUXFU\_GROUP\_SPEC[ groupIndex ], which has a higher priority.

22210	AUXFU_S_SYNC_TYPE	C04	H2, 2, 4
-	Output time of S functions (see MD22200 for values)	BYTE	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0   4   7/2   M

**Description:** Synchronization of the S auxiliary functions with regard to a simultaneously programmed axis motion.  
0 = Output before motion  
1 = Output during motion  
2 = Output at block end  
3 = No output to the PLC (therefore no block change delay)  
4 = Output in accordance with the predefined output specification  
Notice:  
An auxiliary function output specification configured by MD22080 \$MC\_AUXFU\_PREDEF\_SPEC[ preIndex ], MD22035 \$MC\_AUXFU\_ASSIGN\_SPEC[ auxIndex ] or  
A group output specification configured by MD11110 \$MN\_AUXFU\_GROUP\_SPEC[ groupIndex ], which has a higher priority.

22220	AUXFU_T_SYNC_TYPE	C11, C04	H2,2.4
-	Output time for T functions (see MD22200 for values)	BYTE	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
-		4	7/2
-			M

**Description:** Synchronization of the T auxiliary functions with regard to a simultaneously programmed axis motion.

0 = Output before motion

1 = Output during motion

2 = Output at block end

3 = No output to the PLC (therefore no block change delay)

4 = Output in accordance with the predefined output specification

Notice:

An auxiliary function output specification configured by MD22080

\$MC\_AUXFU\_PREDEF\_SPEC[ preIndex ], MD22035 \$MC\_AUXFU\_ASSIGN\_SPEC[ auxIndex ]  
or

A group output specification configured by MD11110 \$MN\_AUXFU\_GROUP\_SPEC[ groupIndex ], which has a higher priority.

22230	AUXFU_H_SYNC_TYPE	C04	H2,2.4
-	Output time for H functions (see MD22200 for values)	BYTE	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
-		3	7/2
-			M

**Description:** Synchronization of the H auxiliary functions with regard to a simultaneously programmed axis motion.

0 = Output before motion

1 = Output during motion

2 = Output at block end

3 = No output to the PLC (therefore no block change delay)

Notice:

An auxiliary function output specification configured by MD22080

\$MC\_AUXFU\_PREDEF\_SPEC[ preIndex ], MD22035 \$MC\_AUXFU\_ASSIGN\_SPEC[ auxIndex ]  
or

A group output specification configured by MD11110 \$MN\_AUXFU\_GROUP\_SPEC[ groupIndex ], which has a higher priority.

22240	AUXFU_F_SYNC_TYPE	C04	H2,K1,V1,Z1
-	Output time for F functions (see MD22200 for values)	BYTE	PowerOn
-			
-	-	3, 3, 3, 3, 3, 3, 3, 3...	0
-		4	7/2
-			M

**Description:** Synchronization of the F auxiliary functions with regard to a simultaneously programmed axis motion.

0 = Output before motion

1 = Output during motion

2 = Output at block end

3 = No output to the PLC (therefore no block change delay)

4 = Output in accordance with the predefined output specification

1.3 NC machine data

Notice:

An auxiliary function output specification configured by MD22080 \$MC\_AUXFU\_PREDEF\_SPEC[ preIndex ], MD22035 \$MC\_AUXFU\_ASSIGN\_SPEC[ auxIndex ] or

A group output specification configured by MD11110 \$MN\_AUXFU\_GROUP\_SPEC[ groupIndex ], which has a higher priority.

22250	AUXFU_D_SYNC_TYPE	C04	H2
-	Output time for D functions (see MD22200 for values)	BYTE	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0   4   7/2   M

**Description:** Synchronization of the D auxiliary functions with regard to a simultaneously programmed axis motion.

0 = Output before motion

1 = Output during motion

2 = Output at block end

3 = No output to the PLC (therefore no block change delay)

4 = Output in accordance with the predefined output specification

Notice:

An auxiliary function output specification configured by MD22080 \$MC\_AUXFU\_PREDEF\_SPEC[ preIndex ], MD22035 \$MC\_AUXFU\_ASSIGN\_SPEC[ auxIndex ] or

A group output specification configured by MD11110 \$MN\_AUXFU\_GROUP\_SPEC[ groupIndex ], which has a higher priority.

22252	AUXFU_DL_SYNC_TYPE	C04	H2
-	Output time of DL functions	BYTE	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0   4   7/2   M

**Description:** Synchronization of the auxiliary function with regard to a simultaneously programmed motion.

0 = Output before motion

1 = Output during motion

2 = Output at block end

3 = No output to the PLC (therefore no block change delay)

4 = Output in accordance with the predefined output specification

Notice:

An auxiliary function output specification configured by MD22080 \$MC\_AUXFU\_PREDEF\_SPEC[ preIndex ], MD22035 \$MC\_AUXFU\_ASSIGN\_SPEC[ auxIndex ] or

A group output specification configured by MD11110 \$MN\_AUXFU\_GROUP\_SPEC[ groupIndex ], which has a higher priority.

22254	AUXFU_ASSOC_M0_VALUE	C01, C03, C10	H2, K1
-	Additional M function to stop a program	DWORD	PowerOn
-			
-	-	-1, -1, -1, -1, -1, -1, -1, -1... -1...	-   -   7/2   M

**Description:** This machine data defines an additional, predefined M function, which behaves in the same way as M0. The value of the machine data corresponds to the number of the auxiliary M function.

Predefined M numbers, such as M0, M1, M2, M3, etc., are not allowed.

Restriction:

See MD10715 \$MN\_M\_NO\_FCT\_CYCLE

Related to:

MD10714 \$MN\_M\_NO\_FCT\_EOP,

MD10715 \$MN\_M\_NO\_FCT\_CYCLE,

MD20094 \$MC\_SPIND\_RIGID\_TAPPING\_M\_NR,

MD22254 \$MC\_AUXFU\_ASSOC\_M0\_VALUE

For external language mode:

MD10814 \$MN\_EXTERN\_M\_NO\_MAC\_CYCLE,

MD10804 \$MN\_EXTERN\_M\_NO\_SET\_INT

MD10806 \$MN\_EXTERN\_M\_NO\_DISABLE\_INT,

MD10800 \$MN\_EXTERN\_CHAN\_SYNC\_M\_NO\_MIN,

MD10802 \$MN\_EXTERN\_CHAN\_SYNC\_M\_NO\_MAX

MD20095 \$MC\_EXTERN\_RIGID\_TAPPING\_M\_NR

For nibbling:

MD26008 \$MC\_NIBBLE\_PUNCH\_CODE

22256	AUXFU_ASSOC_M1_VALUE	C01, C03, C10	H2
-	Additional M function for conditional stop	DWORD	PowerOn
-			
-	-	-1, -1, -1, -1, -1, -1, -1, -1...	7/2 M

**Description:**

This machine data defines an additional, predefined M function, which behaves in the same way as M1. The value of the machine data corresponds to the number of the auxiliary M function.

Predefined M numbers, such as M0, M1, M2, M3, etc., are not allowed.

Restriction:

See MD10715 \$MN\_M\_NO\_FCT\_CYCLE

Related to:

MD10714 \$MN\_M\_NO\_FCT\_EOP,

MD10715 \$MN\_M\_NO\_FCT\_CYCLE,

MD20094 \$MC\_SPIND\_RIGID\_TAPPING\_M\_NR,

MD22254 \$MC\_AUXFU\_ASSOC\_M0\_VALUE

For external language mode:

MD10814 \$MN\_EXTERN\_M\_NO\_MAC\_CYCLE,

MD10804 \$MN\_EXTERN\_M\_NO\_SET\_INT

MD10806 \$MN\_EXTERN\_M\_NO\_DISABLE\_INT,

MD10800 \$MN\_EXTERN\_CHAN\_SYNC\_M\_NO\_MIN,

MD10802 \$MN\_EXTERN\_CHAN\_SYNC\_M\_NO\_MAX

MD20095 \$MC\_EXTERN\_RIGID\_TAPPING\_M\_NR

For nibbling:

MD26008 \$MC\_NIBBLE\_PUNCH\_CODE

22400	S_VALUES_ACTIVE_AFTER_RESET		C04, C03, C05	-		
-	S function active beyond RESET		BOOLEAN	PowerOn		
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/2	M

**Description:**

1: The last S values set in the main run are still active after a RESET. This also applies to the dynamic correction values ACC, VELOLIM in spindle mode.

0: The various S values are equal to 0 after a RESET, and must therefore be reprogrammed.

The dynamic correction values ACC and VELOLIM are reset to 100% for spindle mode if the axis-specific MD35040 \$MA\_SPIND\_ACTIVE\_AFTER\_RESET and MD32320 \$MA\_DYN\_LIMIT\_RESET\_MASK do not specify anything else.

Note:

The values for ACC and VELOLIM are also retained for spindle mode if MD35040 \$MA\_SPIND\_ACTIVE\_AFTER\_RESET is not equal to zero or the axis-specific MD35040 \$MA\_SPIND\_ACTIVE\_AFTER\_RESET is not equal to zero.

22410	F_VALUES_ACTIVE_AFTER_RESET		C04, C03, C05	M3,V1		
-	F function active beyond RESET		BOOLEAN	PowerOn		
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/2	M

**Description:**

1: The last programmed F, FA, OVR and OVRA values are still active after RESET.

This also applies to the dynamic correction values (ACC, VELOLIM, JERKLIM, ACCLIMA, VELOLIMA, JERKLIMA).

0: The various values are set to their default values after reset.

This does not apply to the dynamic correction values if the axis-specific MD32320 \$MA\_DYN\_LIMIT\_RESET\_MASK specifies anything else.

Note:

The dynamic correction values are also retained if the axis-specific MD32320 \$MA\_DYN\_LIMIT\_RESET\_MASK is not equal to zero.

Related to:

MD22240 \$MC\_AUXFU\_F\_SYNC\_TYPE Output time of the F functions

22420	FGROUP_DEFAULT_AXES		C11	-		
-	Default setting for FGROUP command		BYTE	PowerOn		
-						
-	8	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7	M

**Description:**

Default setting for FGROUP command. You can specify up to 8 channel axes whose resulting velocity is equivalent to the programmed path feed.

If all eight values are zero (default), the geo axis entered in MD20050 \$MC\_AXCONF\_GEOAX\_ASSIGN\_TAB are active as the default setting for the FGROUP command as previously.



22430	FGROUP_PATH_MODE			EXP	-	
-	Response of the path velocity in singular situations			BYTE	Immediately	
-						
-	-	1, 1, 1, 1, 1, 1, 1, 1...	0	2	3/3	M

**Description:** If the path of the FGROUP axes is small when compared to the non-FGROUP axes, then the latter must be very fast in order to be able to follow the path. If the distance is precisely 0, then they travel towards it with the program feedrate. This abrupt transition can be smoothed using the machine data.

Value 0: This abrupt transition is not modified. Compatible setting to the behavior before software release 6

Value 1: Above a threshold of the path ratio of \$MC\_FGROUP\_PATH\_RATIO, the paths of the non-FGROUP axes are increasingly taken into account. However, this is only applicable in polynomial blocks with significantly changing path components. Compatible setting to the behavior before software release NCK.P7\_91

Value 2: Same as 1, however, without restrictions. Recommended setting for mold building applications

.

Corresponds with:  
MD22420 \$MC\_FGROUP\_DEFAULT\_AXES, MD22440 \$MC\_FGROUP\_PATH\_RATIO

22440	FGROUP_PATH_RATIO			EXP	-	
-	Path ratio when using the FGROUP singularity strategy			DOUBLE	Immediately	
-						
-	-	1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0...	0.	1.e6	3/3	M

**Description:** Ratio of the path of non-FGROUP axes to the FGROUP axes, from which also the path of the first is taken into account for the reference of the path velocity.

Is only of significance for \$MC\_FGROUP\_PATH\_MODE > 0. The value 0 has the effect as if all of the axes were in FGROUP. For higher values, the behavior approximates to that for \$MC\_FGROUP\_PATH\_MODE = 0.

Corresponds with:  
MD22420 \$MC\_FGROUP\_DEFAULT\_AXES, MD22430 \$MC\_FGROUP\_PATH\_MODE

22510	GCODE_GROUPS_TO_PLC			C04	K1,P3 pl,P3 sl	
-	G codes output at NCK-PLC interface on block change/RESET			BYTE	PowerOn	
-						
-	8	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/2	M

**Description:** Specification of the G code group, the G codes of which are output to the NCK/PLC interface in case of block change/ reset.

The interface is updated after each block change and reset.

Notice:

It is not guaranteed that a PLC user program has at all times a block-synchronous relation between the active NC block and the G codes present.

Example: Path mode with very short blocks

22512	EXTERN_GCODE_GROUPS_TO_PLC		C11, C04	-		
-	Send G codes of an external NC language to PLC		BYTE	PowerOn		
-						
-	8	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/2	M

**Description:** Specification of the G code group of external languages, the G codes of which are output at the NCK interface on block change/reset.

The interface is updated at each block change and after RESET.

Notice:

It is not guaranteed that a PLC user program has at all times a block-synchronous relation between the active NC block and the G codes present. (Example: Path mode with very short blocks).

22515	GCODE_GROUPS_TO_PLC_MODE		C04	-		
-	Behavior of G group transfer to PLC		DWORD	PowerOn		
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	1	7/2	M

**Description:** For setting the behavior, i.e. how the G groups are to be interpreted in the PLC with regard to data.

With the current behavior (bit 0 = 0), the G group is the array index of a 64-byte field (DBB 208 - DBB 271).

Maximally the 64th G group can be reached in this way.

With the new behavior (bit 0 = 1), the data storage in the PLC consists of max. 8 bytes (DBB 208 - DBB 215).

With this procedure, the array index of this byte array is identical with the index of the MD22510 \$MC\_GCODE\_GROUPS\_TO\_PLC[Index] and MD22512 \$MC\_EXTERN\_GCODE\_GROUPS\_TO\_PLC[Index].

Each index (0 - 7) may only be set for one of the two machine data; the value 0 must be entered for the other MD.

Bit 0 (LSB) = 0:

Behavior as before, the 64-byte field is used for displaying the G codes

Bit 0 (LSB) = 1:

The user specifies for which G groups the first 8 bytes are to be used

22530	TOCARR_CHANGE_M_CODE		C04	H2,W1		
-	M code at change of tool holder		DWORD	PowerOn		
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-99999999	99999999	7/2	M

**Description:** The absolute value of this machine data indicates the number of the M code, which is output at the VDI interface when a tool holder is activated.

- If the MD is positive, the unchanged M code is always output.
- If the MD is negative, the number of the tool holder is added to the absolute value of the machine data and the number is output.

Special cases:

N M code is output, if the number of the M code to be output or the absolute value of this MD is set to one of the values 0 to 6, 17 or 30. It is not monitored whether an M code created in this way will conflict with other functions.

References:

/FB/, H2, Auxiliary Function Output to PLC

22532	GEOAX_CHANGE_M_CODE	C04	H2,K2
-	M code at change of geo axes	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0, 0...	0
		99999999	7/2
			M

**Description:** Number of the M code, which is output at the VDI interface in the case of a switchover of the geometry axes.  
 No M code is output if this MD is set to one of the values 0 to 6, 17 or 30.  
 It is not monitored whether an M code created in this way will conflict with other functions.

22534	TRAFO_CHANGE_M_CODE	C04	M1,H2
-	M code at change of transformation	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0, 0...	0
		99999999	7/2
			M

**Description:** Number of the M code that is output at the VDI interface in the case of a transformation changeover of the geometry axes.  
 No M code is output if this MD is set to one of the values 0 to 6, 17 or 30.  
 It is not monitored whether an M code created in this way will conflict with other functions.

22550	TOOL_CHANGE_MODE	C01, C11, C04, C09	W3,K1,W1
-	New tool compensation for M function	BYTE	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0, 0...	0
		1	7/2
			M

**Description:** The T function is used to select a tool in the program. The setting in this machine data determines whether the new tool is loaded immediately on execution of the T function:

MD22550 \$MC\_TOOL\_CHANGE\_MODE = 0

The new tool is loaded directly with the programming of T or D. This setting is mainly used on turning machines. If a D is not programmed in the block by T, then the tool offset defined in MD20270 \$MC\_CUTTING\_EDGE\_DEFAULT is active.

In this case, the function "Manual tools" is not enabled.

MD22550 \$MC\_TOOL\_CHANGE\_MODE = 1

The new tool is prepared for loading on execution of the T function. This setting is used mainly on milling machines with a tool magazine in order to bring the new tool into the tool change position without interrupting the machining process. The M function entered in MD22560 \$MC\_TOOL\_CHANGE\_M\_CODE is used to remove the old tool from the spindle and load the new tool onto the spindle. According to DIN 66025, this tool change has to be programmed with M function M06.

Related to:

MD22560 \$MC\_TOOL\_CHANGE\_M\_CODE

22560	TOOL_CHANGE_M_CODE	C01, C04, C09	H2,K1,W1
-	M function for tool change	DWORD	PowerOn
-			
-	-	6, 6, 6, 6, 6, 6, 6...	6
-	-	99999999	7/2
-	-		M

**Description:** If the T function is only used to prepare a new tool for a tool change (this setting is used mainly on milling machines with a tool magazine, in order to bring the new tool into the tool change position without interrupting the machining process), another M function must be used to trigger the tool change.

The M function entered in TOOL\_CHANGE\_M\_CODE triggers the tool change (remove old tool from the spindle and load new tool into the spindle). This tool change is required to be programmed with M function M06, in accordance with DIN 66025.

Related to:

MD22550 \$MC\_TOOL\_CHANGE\_MODE

22562	TOOL_CHANGE_ERROR_MODE	C09	W1
-	Response to tool change errors	DWORD	PowerOn
-			
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0
-	-	0x1FF	7/2
-	-		M

**Description:** Behavior if faults/problems occur during programmed tool change.

Bit 0=0: Standard behavior: Stop on the faulty NC block

Bit 0=1: If a fault is detected in the block with the tool change preparation, the alarm relevant to the preparation command T is delayed until the corresponding tool change command (M06) has been interpreted in the program sequence. Until then, the alarm triggered by the preparation command is not output. The operator can take corrective actions in this block. When the program continues, the faulty NC block is re-interpreted, and the preparation command is automatically executed again internally.

The value = 1 is relevant only if the setting MD22550 \$MC\_TOOL\_CHANGE\_MODE = 1 is used.

Bit 1 Only relevant with active tool management:

Bit 1=0: Standard behavior: Only tools with data assigned to a magazine are detected during tool change preparation.

Bit 1=1: Manual tools can be loaded.

A tool will also be loaded if its data are known in the NCK but have not been assigned to a magazine. In this case, the tool data is automatically assigned to the programmed tool holder.

The user is prompted to insert tools into or remove tools from the tool holder).

Bit 2 modifies the offset programming

Bit 2=0: active D no. > 0 and active T no.=0 gives offset 0

Active D no. > 0 and active D no.=0 gives total offset 0

Bit 2=1: active D no. > 0 and active T no.=0 lead to an alarm message

Active D no. > 0 and active D no.=0 lead to an alarm message

Bits 3 and 4 are only relevant with active tool management.

## Function:

Control of the behavior of the init. block generation on program start if a disabled tool is on the spindle and this tool is to be activated.

See MD20112 \$MC\_START\_MODE\_MASK, MD20110 \$MC\_RESET\_MODE\_MASK

On RESET, this does not affect the behavior "Keep disabled tool on the spindle active".

Bit 3=0: Standard: If the tool on the spindle is disabled, generate a tool change command requesting a replacement tool. An alarm will be generated if there is no such replacement tool.

Bit 3=1: The disabled status of the spindle tool is ignored. The tool becomes active. The subsequent part program should be formulated so that no parts are machined with the disabled tool.

Bit 4=0: Standard: The system tries to activate the spindle tool or its replacement tool.

Bit 4=1: If the tool on the spindle is disabled, T0 is programmed in the start init block.

The combination of bits 3 and 4 produces the following statements:

0 / 0: Behavior as before, automatic change on NC start if a disabled tool is in the spindle

1 / 0: No automatic change

0 / 1: A T0 is automatically generated if a disabled tool is in the spindle at NC start

1 / 1: No statement

Bit 5: Reserved

Bit 6=0: Standard: If T0 or D0, only T0 or D0 is exactly programmed. This means that MD20270 \$MC\_CUTTING\_EDGE\_DEFAULT and MD20272 \$MC\_SUMCORR\_DEFAULT determine the value of D and DL for the programming of T0.

Example: MD20270 \$MC\_CUTTING\_EDGE\_DEFAULT=1, MD20272 \$MC\_SUMCORR\_DEFAULT=2, MD22550 \$MC\_TOOL\_CHANGE\_MODE=0 (tool change with T programming)

N10 T0 ; T no. 0 has active numbers D1 and DL=2, which results in offset zero. If bit 2 is also set:

Programming of

a) T0; for tool deselection

b) D0; for offset deselection

generates an alarm, if

a) at least one of MD20270 \$MC\_CUTTING\_EDGE\_DEFAULT and MD20272 \$MC\_SUMCORR\_DEFAULT is unequal to zero (The correct programming is T0 D0 DL=0).

b) MD20272 \$MC\_SUMCORR\_DEFAULT is unequal to zero (the correct programming is D0 DL=0).

Bit 6=1: Controls the NCK behavior when x, y, z are all programmed greater than zero, if at least one of MD20270 \$MC\_CUTTING\_EDGE\_DEFAULT and MD20272 \$MC\_SUMCORR\_DEFAULT is unequal to zero.

a) Tx Dy --> T0:

With T0, D0 or D0 DL=0 is automatically programmed in the NCK; i.e. values in MD20270 \$MC\_CUTTING\_EDGE\_DEFAULT and \$MC\_SUMCORR\_DEFAULT unequal to zero are treated as values equal to zero.

b) Tx Dy --> T0 Dy, or T0 DL=z, or T0 Dy DL=z, or T0 D0 DL=z, explicitly programmed values of D, DL are not influenced.

c) Dy DL=z --> D0

With D0, DL=0 is automatically programmed in the NCK; i.e. values in MD20272 \$MC\_SUMCORR\_DEFAULT unequal to zero are treated as values equal to zero.

d) Dy DL=z --> D0 DL=z

Explicitly programmed values of DL are not influenced.

If bit 2 is also set:

Only T0 / D0 have to be programmed for tool/offset deselection, and this does not generate an alarm.

The statements relating to MD20272 \$MC\_SUMCORR\_DEFAULT or DL are valid only if the total offset function is active (see MD18080

\$MN\_MM\_TOOL\_MANAGEMENT\_MASK, bit 8).

Bit 7=0: When Tx is programmed, a check is made to see whether a tool with T number x is known in the TO unit of the channel. If not, the program is stopped in this block with alarm 17190

Bit 7=1: Only if tool basic functionality is active (MD20310

\$MC\_TOOL\_MANAGEMENT\_MASK, bit 0,1=0) and (MD18102

\$MN\_MM\_TYPE\_OF\_CUTTING\_EDGE=0):

When Tx is programmed, an unknown Tx is initially be ignored, and the alarm relating to the preparation command (Tx) is also ignored until the D selection is interpreted in the program sequence. Only then is alarm 17191, which has been triggered by the preparation command, output. This means that the operator can take corrective actions with the D selection in this block. When the program is continued, the incorrect NC block is re-interpreted, and the preparation command is automatically executed again internally.

(This is of interest for Cutting-Edge-Default=0 or =-2 and D0 programming, otherwise the D of Cutting-Edge-Default is deselected on tool change.)

This variant is justified for programming "Tool number=Location" (revolver as tool holder) without tool management. The revolver can now positioned on a location for which a tool has not (yet) been defined.

This bit has no meaning if bit 0=1 is set.

Bit 8=0: A tool that is located in a blocked magazine location is not taken into account for the tool selection. (Default setting)

Bit 8=1: A tool that is located in a blocked magazine location is also taken into account for the tool selection. (corresponds to the previous behavior).

22600	SERUPRO_SPEED_MODE	EXP	K1
-	Speed for block search run type 5	DWORD	Immediately
-			
-	-	1, 1, 1, 1, 1, 1, 1, 1...	0
		3	2/2 M

**Description:** This machine data specifies the search run mode: SERUPRO in more detail. SERUPRO search run is activated with PI service \_N\_FINDBL mode parameter = 5. SERUPRO means Search Run by Program test, i.e. traversing under program test from beginning of program to search target.

Note:

Program test does not move any axes/spindles.

\$MC\_SERUPRO\_SPEED\_MODE= 0

Program test with the search run/dry run speed

Under program test, the axes/spindles are traversed at the following velocity/speed:

Axes: \$MC\_SERUPRO\_SPEED\_FACTOR\*dry run feed

Spindles: \$MC\_SERUPRO\_SPEED\_FACTOR\*programmed speed

Dynamic axis / spindle limitations are not taken into account.

\$MC\_SERUPRO\_SPEED\_MODE= 1

Program test at programmed speed

Under program test, the axes/spindles are traversed at the following velocity/speed:

Axes: at the same velocity as dry run feed.

Spindles: at the programmed speed.

Dynamic axis / spindle limitations are taken into account.

\$MC\_SERUPRO\_SPEED\_MODE= 2

Program test at dry run speed

Under program test, the axes/spindles are traversed at the programmed velocity/speed.

Dynamic axis /spindle limitations are taken into account.

\$MC\_SERUPRO\_SPEED\_MODE= 3

Program test at search run speed

Under program test, the axes/spindles are traversed at the following velocity/speed:

Axes: \$MC\_SERUPRO\_SPEED\_FACTOR\*programmed feed

Spindles: \$MC\_SERUPRO\_SPEED\_FACTOR\*programmed speed.

Dynamic axis / spindle limitations are not taken into account.

Note:

With active revolutional feedrate (e.g. G95), the programmed F value is not multiplied by the factor \$MC\_SERUPRO\_SPEED\_FACTOR but only by the programmed spindle speed. Here again, this increases the effective path speed by the \$MC\_SERUPRO\_SPEED\_FACTOR.

Related to:

SD42100 \$SSC\_DRY\_RUN\_FEED, MD22601 \$MC\_SERUPRO\_SPEED\_FACTOR

22601	SERUPRO_SPEED_FACTOR			EXP	K1	
-	Speed factor for search run type 5			DOUBLE	Immediately	
-						
-	-	10.0, 10.0, 10.0, 10.0, 10.0, 10.0, 10.0...	1.0	-	2/2	M

**Description:** SERUPRO means Search Run by Program test, i.e. traversing under program test from beginning of program to search target.

Note:

Program test does not move any axes / spindles.

The machine data is relevant only if the first two bits of MD22600 \$MC\_SERUPRO\_SPEED\_MODE are 0. The machine data has the following meaning:

Axes: MD specifies the factor by which the test run feedrate is multiplied.

Spindles: MD specifies the factor by which the programmed speed is multiplied.

Dynamic limitations of axes / spindles are always ignored.

Related to:

SD42100 \$SSC\_DRY\_RUN\_FEED, MD22600 \$MC\_SERUPRO\_SPEED\_MODE

22620	START_MODE_MASK_PRT			EXP, C03	M3, K1	
-	Initial setting on special starts			DWORD	Reset	
-						
-	-	0x400, 0x400, 0x400, 0x400, 0x400, 0x400...	0	0xFFFF	7/2	M

**Description:** This machine data is activated via MD22621 \$MC\_ENABLE\_START\_MODE\_MASK\_PRT.

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If MD22621 \$MC\_ENABLE\_START\_MODE\_MASK\_PRT is in its initial setting, MD22620 \$MC\_START\_MODE\_MASK\_PRT is inactive.

If MD22620 \$MC\_START\_MODE\_MASK\_PRT is activated for "search via program test" (abbr. SERUPRO), then MD22620 \$MC\_START\_MODE\_MASK\_PRT replaces MD20112 \$MC\_START\_MODE\_MASK when "search via program test" is started.

This enables a behavior deviating from PLC start to be set at the start of the search. The meaning of the bit-by-bit assignment of MD22620 \$MC\_START\_MODE\_MASK\_PRT is the same as that in MD20112 \$MC\_START\_MODE\_MASK.

22621	ENABLE_START_MODE_MASK_PRT	EXP, C03	M3,K1
-	Enables MD22620 \$MC_START_MODE_MASK_PRT	DWORD	Reset
-			
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0      0x1      7/2      M

**Description:** MD22620 \$MC\_START\_MODE\_MASK\_PRT is activated via MD22621 \$MC\_ENABLE\_START\_MODE\_MASK\_PRT.  
 If MD22621 \$MC\_ENABLE\_START\_MODE\_MASK\_PRT is in its initial setting, MD22620 \$MC\_START\_MODE\_MASK\_PRT is inactive.  
 Bit0 = 1:  
 If a "search via program test" (English abbr. SERUPRO) is started from RESET (PI service \_N\_FINDBL mode paramter == 5), MD22620 \$MC\_START\_MODE\_MASK\_PRT replaces MD20112 \$MC\_START\_MODE\_MASK.  
 This method can be used to set a start behavior differing from PLC start when the search is started.

22622	DISABLE_PLC_START	EXP	-
-	Enable part program start via PLC	DWORD	PowerOn
-			
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	-      -      2/2      M

**Description:** Allow part program start via PLC.  
 This machine data will ONLY be evaluated, if "Group-Serupro" mode is switched on.  
 "Group-Serupro" is switched on by means of "\$MC\_SERUPRO\_MODE BIT2".  
 BIT0 = 0  
 A part program can be started in this channel only via the PLC. Starting via the part program command "START" is interlocked.  
 BIT0 = 1  
 A part program can be started in this channel only by means of the part program command "START" from another channel. Starting via the PLC is interlocked.



22680	AUTO_IPTR_LOCK		EXP, C03	K1		
-	Disable interrupt pointer		DWORD	Reset		
-						
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0	0x3	7/2	M

**Description:** With MD22680 \$MC\_AUTO\_IPTR\_LOCK program areas are defined in which the individually indicated coupling types are active. If a program cancelation is executed in a program range that is defined as such, it will not be the currently executed part program block that is stored in the interrupt pointer (OPI module InterruptionSearch), but the last block prior to activation of the coupling.

22700	TRACE_STARTTRACE_EVENT		EXP, C06	-		
-	Diagnostic data rec. starts with event TRACE_STARTTRACE_EVENT.		STRING	PowerOn		
NBUP						
-	-	...	-	-	2/2	M

**Description:** The machine data is used for diagnostics.  
The recording of the diagnostic data does not start until the event (TRACE\_STARTTRACE\_EVENT) has occurred at the trace point (TRACE\_STARTTRACE\_TRACEPOINT) and in the correct step (TRACE\_STARTTRACE\_STEP).

22702	TRACE_STARTTRACE_STEP		EXP, C06	-		
-	Conditions for start of trace recording		STRING	PowerOn		
NBUP						
-	2	, , , , , , , , ...	-	-	2/2	M

**Description:** The machine data is only intended for diagnostic use.  
See TRACE\_STARTTRACE\_EVENT  
In the case of TRACE\_STARTTRACE\_EVENT BLOCK\_CHANGE the string TRACE\_STARTTRACE\_STEP is interpreted as a file name and block number.  
In the case of BSEVENTTYPE\_SETALARM the string is interpreted as an alarm number.

22704	TRACE_STOPTRACE_EVENT		EXP, C06	-		
-	Conditions for stop of trace recording		STRING	PowerOn		
NBUP						
-	-	CLEARCANCELALAR M_M, CLEARCANCELALAR M_M...	-	-	2/2	M

**Description:** The machine data is only used for diagnostics.  
The recording of the diagnostic data ends when the event (TRACE\_STOPTRACE\_EVENT) has occurred at the trace point (TRACE\_STOPTRACE\_TRACEPOINT) and in the correct step (TRACE\_STOPTRACE\_STEP).  
(After reaching the stop condition, the previously recorded diagnostic data is stored in a file "NCSTRyy.MPF" or for NCU-LINK in "NCxxTRyy.MPF" in the MPF directory.

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22706	TRACE_STOPTRACE_STEP			EXP, C06	-	
-	CommandSequenzStep with which the recording ends			STRING	PowerOn	
NBUP						
-	2	, , , , , , , , ...	-	-	2/2	M

**Description:** The machine data is only intended for diagnostic use.

22708	TRACE_SCOPE_MASK			EXP, C06	-	
-	Selects the contents of the trace file			STRING	PowerOn	
NBUP						
-	-	...	-	-	2/2	M

**Description:** The machine data is only intended for diagnostic purposes.  
 Specific trace contents are selected with the MD datum.  
 The entry SETALARM records the alarm environment and the block change in the main run is also logged by means of BLOCK\_CHANGE.

22710	TRACE_VARIABLE_NAME			-	-	
-	Definition of trace data			STRING	PowerOn	
NBUP						
-	10	"BL_NR", "TR_POINT", "EV_TYPE", "EV_SRC", "CS_ASTEP"...	-	-	2/2	M

**Description:** The machine data is only intended for diagnostic purposes.  
 The MD datum defines which data are recorded in the trace file.

22712	TRACE_VARIABLE_INDEX			EXP, C06	-	
-	Index for trace recording data			DWORD	PowerOn	
NBUP						
-	10	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0	0xFFFF	2/2	M

**Description:** The machine data is only intended for diagnostic use.  
 The MD data, together with TRACE\_VARIABLE\_NAME, determines which data are recorded in the trace file.  
 It enables access to an array element.  
 E.g. use as an axis index when accessing axis data.

22714	MM_TRACE_DATA_FUNCTION			EXP, C02, C06	-	
-	Activating diagnostics			DWORD	PowerOn	
NBUP						
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0	0FFFFFF	2/2	M

**Description:** The machine data is only intended for diagnostic purposes.  
 Activating diagnostics  
 An internal ring buffer records important events.  
 After a trigger event, with the 'Cancel alarm' key set as default,  
 the ring buffer is briefly freezed, read, and converted into an ASCII file  
 in the part program directory. The file name for the 1st channel  
 is nscctr01.mpf and for the 7th channel it is nscctr07.mpf.

The data in the ring buffer is referred to as dynamic data in the following. In addition to the trigger event, other up-to-date data is read from the NCK and transferred to the ASCII file. These recordings do NOT have a history and are referred to as static data in the following.

Bit no.      Significance when bit is set

- 
- 0 (LSB) Recording of dynamic data (see TRACE\_VARIABLE\_NAME)
  - 1        Recording of block control static data
  - 2        Recording of alarm data static data
  - 3        Recording of process data static data
  - 4        Recording of command sequence static data
  - 5        Recording of tool management static data
  - 6        Recording of the NCK version file. Static data
  - 7        Recording of the statuses of the current block  
          Various statuses of the axes and the SPARPI. Static data
  - 8        Recording of various statuses of the channel. Static data
  - 9        Error statuses in the NCK memory management are scanned during trace  
          generation.  
          An error renames the trace file. Static data  
          Possible names and their meaning:  
          NCFIER.MPF    Error in the file system  
          NCSLER.MPF    Error during string creation  
          NCFIER.MPF    Error on New/Delete
  - 10       All block changes in the interpreter are recorded. Dynamic data.
  - 11       Axial VDI signals are recorded. Dynamic data.  
          Only in conjunction with MD18794 \$MN\_MM\_TRACE\_VDI\_SIGNAL
  - 12       OEM traces are activated. Dynamic data.
  - 13       Synchronized actions are recorded. Dynamic data.  
          NOTICE: Filled in applications with intensive use of  
          these trace points, other events are ignored!  
          That is why this bit should remain at 0 in these cases.
  - 14       Not assigned.
  - 15       Recording of station commands.      Dynamic data.  
          Note: Most important output of the NCK module NCSC!
  - 16       Recording of gantry commands
  - 17       Recording of changes in the drive's status
  - 18       Recording of the processing of the Event-Queue and generation of com-  
          mand sequences
  - 19       Recording of event destructor call

22800	TRACE_COMPRESSOR_OUTPUT	EXP, C01	-
-	Activation of trace output for compressor	BYTE	PowerOn
NBUP			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-      -      0/0      M

**Description:** A trace output of the compressor can be activated with this machine data. With this, the polynomials created by the compressor can be output in an internal file. If this MD is active, the NCK works like a preprocessor, i.e. there is also no program execution.

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The following values are possible for this MD:

- 0: Trace output not active.
- 1: Polynomials created by the compressor are output.
- 2: The following are also output:
  - Type of continuousness of the block transitions generated by the compressor
  - Compression rate (number of compressed blocks)
  - Corner detection

22900	STROKE_CHECK_INSIDE		EXP, C01, C11	-		
-	Direction (inside/outside) in which prot. zone 3 is effective		BOOLEAN	PowerOn		
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/2	M

**Description:** This MD defines whether protection zone 3 is a protection zone inside or outside.  
 Meaning:  
 0: Protection zone 3 is a protection zone inside, i.e. the protection zone must not entered inwardly.  
 1: Protection zone 3 is a protection zone outside

22910	WEIGHTING_FACTOR_FOR_SCALE		EXP, C01, C11	-		
-	Input resolution for scaling factor		BOOLEAN	PowerOn		
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/2	M

**Description:** Definition of the unit for the scaling factor P and for the axial scaling factors I, J, K.  
 Meaning:  
 0 Scale factor in 0.001  
 1 Scale factor in 0.00001  
 Related to:  
 SD43120 \$SA\_DEFAULT\_SCALE\_FACTOR\_AXIS,  
 SD42140 \$SC\_DEFAULT\_SCALE\_FACTOR\_P

22914	AXES_SCALE_ENABLE		EXP, C01, C11	-		
-	Activation for axial scaling factor ( G51 )		BOOLEAN	PowerOn		
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/2	M

**Description:** This MD enables axial scaling.  
 Meaning:  
 0: Axial scaling not possible  
 1: Axial scaling possible -> MD DEFAULT\_SCALE\_FACTOR\_AXIS is active  
 Related to:  
 SD43120 \$SA\_DEFAULT\_SCALE\_FACTOR\_AXIS

22920	EXTERN_FIXED_FEEDRATE_F1_ON		EXP, C01, C11	-		
-	Activation of fixed feedrates F1 - F9		BOOLEAN	PowerOn		
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/2	M

**Description:** This MD is used to activate the fixed feedrates set in SD42160  
`$_SC_EXTERN_FIXED_FEEDRATE_F1_F9[]`.  
Meaning:  
0: no fixed feedrates with F1 - F9  
1: the feedrates set in SD42160 `$_SC_EXTERN_FIXED_FEEDRATE_F1_F9[]` become active when F1 - F9 are programmed.

22930	EXTERN_PARALLEL_GEOAX		EXP, C01, C11	-		
-	Assignment of a parallel channel axis to the geometry axis		BYTE	PowerOn		
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/2	M

**Description:** Assignment table of the axes positioned parallel to the geometry axes.  
This table can be used to assign channel axes positioned parallel to the geometry axes. The parallel axes can then be activated as geometry axes in ISO mode using the G functions of plane selection (G17 - G19) and the axis name of the parallel axis. The axis is then replaced by the axis defined via MD20050 `$_MC_AXCONF_GEOAX_ASSIGN_TAB[]`.  
Prerequisite:  
The channel axes used must be active. ( list position assigned in `AXCONF_MACHAX_USED` ). Entering zero deactivates the corresponding parallel geometry axis:

24000	FRAME_ADD_COMPONENTS		C03	K2		
-	Frame components for G58 and G59		BOOLEAN	PowerOn		
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/7	M

**Description:** Additive programmable frame components can be separately programmed and modified.  
0: Additive translations which have been programmed with ATRANS are stored in the frame together with the absolute translation (prog. with TRANS).  
G58 and G59 are not possible.  
1: The sum of the additive translations are stored in the fine offset of the programmable frame. The absolute and the additive translations can be changed independently of one another.  
G58 and G59 are possible.

24002	CHBFRAME_RESET_MASK		C03	K2		
-	Active channel-specific base frames after reset		DWORD	Reset		
-						
-	-	0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF...	0	0xFFFF	7/2	M

**Description:** Bit mask for the reset setting of the channel-specific base frames which are included in the channel.

The following apply:

If MD20110 \$MC\_RESET\_MODE\_MASK bit0 = 1 and BIT14 = 1

the entire base frame is determined on reset by chaining the base frame field elements, whose bit is 1 in the bit mask.

If MD20110 \$MC\_RESET\_MODE\_MASK bit0 = 1 and BIT14 = 0

the entire base frame is deselected on reset.

24004	CHBFRAME_POWERON_MASK		C03	K2		
-	Reset channel-specific base frames after power on		DWORD	PowerOn		
-						
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0	0xFFFF	7/2	M

**Description:** This machine data defines whether channel-specific base frames are reset in the data management on Power On.

That is

- Offsets and rotations are set to 0,
- Scalings are set to 1.
- Mirror image machining is disabled.

The selection can be made separately for individual base frames.

Bit 0 means base frame 0, bit 1 base frame 1 etc.

Value=0: Base frame is retained on Power On

Value=1: Base frame is reset in the data management on Power On.

Related to:

MD10615 \$MN\_NCBFRAME\_POWERON\_MASK

24006	CHSFRAME_RESET_MASK		C03	K2		
-	Active system frames after reset		DWORD	Reset		
-						
-	-	0x1, 0x1, 0x1, 0x1, 0x1, 0x1, 0x1, 0x1...	0	0x00000FFF	7/2	M

**Description:** Bit mask used for the reset setting of the channel-specific system frames included in the channel.

Bit 0: System frame for actual value setting and scratching is active after reset.

Bit 1: System frame for external work offset is active after reset.

Bit 2: Reserved, for TCARR and PAROT see MD20150 \$MC\_GCODE\_RESET\_VALUES[ ].

Bit 3: Reserved, for TOROT and TOFRAME see MD20150 \$MC\_GCODE\_RESET\_VALUES[ ].

Bit 4: System frame for workpiece reference points is active after reset.

Bit 5: System frame for cycles is active after reset.

Bit 6: Reserved; reset behavior dependent on MD20110 \$MC\_RESET\_MODE\_MASK.

Bit 7: System frame \$P\_ISO1FR (ISO G51.1 Mirror) is active after reset.

Bit 8: System frame \$P\_ISO2FR (ISO G68 2DROT) is active after reset.

Bit 9: System frame \$P\_ISO3FR (ISO G68 3DROT) is active after reset.  
 Bit 10: System frame \$P\_ISO4FR (ISO G51 Scale) is active after reset.  
 Bit 11: System frame \$P\_RELFR is active after reset.  
 Related to:  
 MD28082 \$MC\_MM\_SYSTEM\_FRAME\_MASK

24007	CHSFRAME_RESET_CLEAR_MASK			C03	K2	
-	Deletion of system frames after reset			DWORD	Reset	
-						
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0	0x00000FFF	7/2	M

**Description:** Bit mask used to delete channel-specific system frames from the data management on reset.

Bit 0: System frame for actual value setting and scratching is deleted on reset.  
 Bit 1: System frame for external work offset is deleted on reset.  
 Bit 2: Reserved, for TCARR and PAROT, see MD20150 \$MC\_GCODE\_RESET\_VALUES [].  
 Bit 3: Reserved, for TOROT and TOFRAME, see MD20150 \$MC\_GCODE\_RESET\_VALUES [].  
 Bit 4: System frame for workpiece reference points is deleted on reset.  
 Bit 5: System frame for cycles is deleted on reset.  
 Bit 6: Reserved; reset behavior depends on MD20110 \$MC\_RESET\_MODE\_MASK.  
 Bit 7: System frame \$P\_ISO1FR (ISO G51.1 Mirror) is deleted on reset.  
 Bit 8: System frame \$P\_ISO2FR (ISO G68 2DROT) is deleted on reset.  
 Bit 9: System frame \$P\_ISO3FR (ISO G68 3DROT) is deleted on reset.  
 Bit 10: System frame \$P\_ISO4FR (ISO G51 Scale) is deleted on reset.  
 Bit 11: System frame \$P\_RELFR is deleted on reset.

24008	CHSFRAME_POWERON_MASK			C03	K2	
-	Reset channel system frames after power on			DWORD	PowerOn	
-						
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0	0x00000FFF	7/2	M

**Description:** This machine data defines whether channel-specific system frames are reset in the data management on Power On. That is offsets and rotations are set to 0, scalings to 1. Mirroring is disabled.

The selection can be made separately for individual system frames.

Bit 0: System frame for set actual value and scratching is deleted after Power On.  
 Bit 1: System frame for external work offset is deleted after Power On.  
 Bit 2: System frame for TCARR and PAROT is deleted after Power On.  
 Bit 3: System frame for TOROT and TOFRAME is deleted after Power On.  
 Bit 4: System frame for work piece reference points deleted after Power On.  
 Bit 5: System frame for cycles retained after Power On.  
 Bit 6: System frame for transformations deleted after Power On.  
 Bit 7: System frame \$P\_ISO1FR (ISO G51.1 Mirror) is deleted after power ON.  
 Bit 8: System frame \$P\_ISO2FR (ISO G68 2DROT) is deleted after power ON.  
 Bit 9: System frame \$P\_ISO3FR (ISO G68 3DROT) is deleted after power ON.  
 Bit 10: System frame \$P\_ISO4FR (ISO G51 Scale) is deleted after power ON.  
 Bit 11: System frame \$P\_RELFR is deleted after power ON.

1.3 NC machine data

Related to:  
MD28082 \$MC\_MM\_SYSTEM\_FRAME\_MASK

24010	PFRAME_RESET_MODE	C03	K2
-	Reset mode for programmable frame	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0   1   7/2   M

**Description:** 0: Programmable frame is deleted at reset.  
1: Programmable frame remains active at reset.

24020	FRAME_SUPPRESS_MODE	C03	K2
-	Positions for frame suppression	DWORD	PowerOn
-			
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0   0x0000003   7/2   M

**Description:** Bit mask for configuring the positions for frame suppressions (SUPA, G153, G53).  
The following rule applies:  
Bit 0: Positions for display (OPI) without frame suppression  
Bit 1: Position variables without frame suppression

24030	FRAME_ACS_SET	C03	K2
-	Adjustment of SZS coordinate system	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0   1   7/2   M

**Description:** 0: SZS results from the WCS transformed with \$P\_CYCFRAME and \$P\_PFRAME.  
1: SZS results from the WCS transformed with the \$P\_CYCFRAME.

24040	FRAME_ADAPT_MODE	C03	K2
-	Adaptation of active frames	DWORD	PowerOn
-			
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0   0x0000007   7/2   M

**Description:** Bit mask for adapting the active frames or axis configuration  
The following applies:  
Bit 0:  
Rotations in active frames that rotate coordinate axes for which there are no geometry axes are deleted from the active frames.  
Bit 1:  
Shear angles in active frames are orthogonalized.  
Bit 2:  
Scalings of all geometry axes in the active frames are set to value 1.

24050	FRAME_SAA_MODE	C03	-
-	Saving and activating of data management frames	DWORD	PowerOn
-			
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0   0x0000003   7/2   M

**Description:** Bit mask for saving and activating data handling frames.



The following applies:

Bit 0:

Data handling frames are only activated by programming the bit masks \$P\_CHBFRMASK, \$P\_NCBFRMASK and \$P\_CHSFRMASK. G500..G599 only activate the relevant settable frame. The reset behavior is independent of this.

Bit 1:

Data handling frames are not written implicitly by system functions such as TOROT, PAROT, ext. work offset, transformations.

24080	USER_FRAME_POWERON_MASK	N01	-
-	Parameterize properties for settable frame	DWORD	PowerOn
-			
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0
-	-		0x1
-	-		7/2
-	-		M

**Description:** Setting the following bits activates certain properties of the settable frame:

Bit 0 = 0: default behavior.

Bit 0 = 1: if MD20152 \$MC\_GCODE\_RESET\_MODE[7] = 1, the last active settable frame is selected again according to G code group 8 after power up of the control.

24100	TRAF0_TYPE_1	C07	F2,TE4,M1,K1,W1
-	Definition of transformation 1 in channel	DWORD	NEW CONF
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-
-	-		-
-	-		7/7
-	-		M

**Description:** This MD specifies the first available transformation in each channel. The 4 low-value bits identify the specific transformation of a specific transformation group. The transformation group is identified by a number starting with the 5th bit.

Meaning:

0 No transformation

16 and higher

5-axis transformation with turnable tool

32 and higher

5-axis transformation with turnable workpiece

48 and higher

5-axis transformation with turnable tool and turnable workpiece

72

Generic 5-axis transformation. Type and kinematic data are determined by an associated, orientable tool carrier, see MD24582 \$MC\_TRAFO5\_TCARR\_NO\_1 and MD24682 \$MC\_TRAFO5\_TCARR\_NO\_2

The 4 low-value bits have the following meaning for a 5-axis transformation:

0 Axis sequence AB

1 Axis sequence AC

2 Axis sequence BA

3 Axis sequence BC

4 Axis sequence CA

5 Axis sequence CB

8 Generic orientation transformation (3- 5 axes)

1.3 NC machine data

256 and higher  
 TRANSMIT transformation  
 512 and higher  
 TRACYL transformation  
 1024 and higher  
 TRAANG transformation  
 2048  
 TRACLG: centerless transformation  
 From 4096 to 4098  
 OEM transformation  
 8192 and higher  
 TRACON: cascaded transformations  
 Example:  
 A 5-axis transformation with turnable tool and axis sequence CA (i.e. C axis turns A axis) has number 20 ( = 16 + 4 )  
 Notice:  
 Not all combinations of group numbers and axis sequence numbers are allowed. An error message is output if a number for a non-existent transformation is entered.  
 Related to:  
 MD24200 \$MC\_TRAFO\_TYPE\_2, MD24300 \$MC\_TRAFO\_TYPE\_3, ... MD24460 \$MC\_TRAFO\_TYPE\_8  
 References:  
 /FB/, F2, "5-Axis Transformation"

24110	TRAFO_AXES_IN_1			C07	F2,TE4,M1,K1,W1	
-	Axis assignment for the 1st transformation in the channel			BYTE	NEW CONF	
-						
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** Axis assignment at input point of 1st transformation  
 The index input at the nth position states which axis is mapped internally from the transformation to axis n.  
 Not relevant:  
 No transformation  
 Related to:  
 MD24200 \$MC\_TRAFO\_TYPE\_2, MD24300 \$MC\_TRAFO\_TYPE\_3, ...  
 MD24460 \$MC\_TRAFO\_TYPE\_8  
 References:  
 /FB/, F2, "5-Axis Transformation"

24120	TRAFO_GEOAX_ASSIGN_TAB_1			C07	F2,TE4,TE4,M1,K1,W1	
-	Assignment of the geometry axes to channel axes for transformation 1			BYTE	NEW CONF	
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** This MD states the channel axes on which the axes of the cartesian coordinate system are mapped for active transformation 1.

Not relevant:

No transformation

Related to:

MD20050 \$MC\_AXCONF\_GEOAX\_ASSIGN\_TAB, if no transformation is active.

References:

/FB/, K2, "Coordinate Systems, Axis Types, Axis Configurations, Workpiece-Related Actual Value System, External Work Offset"

24130	TRAFO_INCLUDES_TOOL_1		C07	-		
-	Tool handling with 1st active transformation		BOOLEAN	NEW CONF		
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:** This machine data states for each channel whether the tool is handled during the 1st transformation or externally.  
This machine data is evaluated only with specific transformations.  
It is evaluated on the condition that the orientation of the tool with reference to the Basic Coordinate System cannot be changed by the transformation.  
In standard transformations, only the "inclined-axis transformation" fulfills this condition.  
If this machine data is set, the Basic Coordinate System (BCS) refers to the tool reference point even with active transformations. Otherwise, it refers to the tool tip (Tool Center Point - TCP).  
The method of operation of protection zones and working area limitations varies correspondingly.

24200	TRAFO_TYPE_2		C07	F2,M1		
-	Definition of the 2nd transformation in the channel		DWORD	NEW CONF		
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7	M

**Description:** This MD states the second available transformation in each channel.  
Same as TRAFO\_TYPE\_1, but for the second available transformation in the channel.  
References:  
/FB/, F2, "5-Axis Transformation"

24210	TRAFO_AXES_IN_2		C07	F2,M1		
-	Axis assignment for transformation 2		BYTE	NEW CONF		
-						
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** TRAFO\_AXES\_IN\_2(n)  
Axis assignment at input of 2nd to 8th transformation.  
Same meaning as for TRAFO\_AXES\_IN\_1.

24220	TRAFO_GEOAX_ASSIGN_TAB_2			C07	F2,M1	
-	Assignment of geometry axes to channel axes for transformation 2			BYTE	NEW CONF	
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** This MD states the channel axes on which the axes of the cartesian coordinate system are mapped for active transformation 2.  
Otherwise the meaning corresponds to TRAFO\_GEOAX\_ASSIGN\_TAB\_1.

24230	TRAFO_INCLUDES_TOOL_2			C07	-	
-	Tool handling with active 2nd transformation			BOOLEAN	NEW CONF	
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:** This machine data states for each channel whether the tool is handled during the 2nd transformation or externally.  
This machine data is evaluated only with specific transformations.  
It is evaluated on the condition that the orientation of the tool with reference to the Basic Coordinate System cannot be changed by the transformation. In standard transformations, only "inclined-axis transformation" fulfills this condition.  
If this machine data is set, the Basic Coordinate System (BCS) refers to the tool reference point even with active transformations. Otherwise, it refers to the tool tip (Tool Center Point - TCP).  
The method of operation of protection zones and working area limitations varies correspondingly.

24300	TRAFO_TYPE_3			C07	M1	
-	Definition of the 3rd transformation in the channel			DWORD	NEW CONF	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7	M

**Description:** This MD states the third available transformation in each channel.  
Same as TRAFO\_TYPE\_1, but for the third available transformation in the channel.  
References:  
/FB/, F2, "5-Axis Transformation"

24310	TRAFO_AXES_IN_3			C07	M1	
-	Axis assignment for transformation 3			BYTE	NEW CONF	
-						
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** Axis assignment at the input point of the 3rd transformation in the channel.  
Meaning is the same as TRAFO\_AXES\_IN\_1, but for the third available transformation in the channel.

24320	TRAF0_GEOAX_ASSIGN_TAB_3		C07	M1		
-	Assignment of geometry axes to channel axes for transformation 3		BYTE	NEW CONF		
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** This MD states the channel axes on which the axes of the cartesian coordinate system are mapped for active transformation 3.  
Otherwise the meaning corresponds to TRAF0\_GEOAX\_ASSIGN\_TAB\_1.

24330	TRAF0_INCLUDES_TOOL_3		C07	-		
-	Tool handling with active 3rd transformation		BOOLEAN	NEW CONF		
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:** This machine data states for each channel whether the tool is handled during the 3rd transformation or externally.  
This machine data is evaluated only with specific transformations.  
It is evaluated on the condition that the orientation of the tool with reference to the Basic Coordinate System cannot be changed by the transformation. In standard transformations, only "inclined-axis transformation" fulfills this condition.  
If this machine data is set, the Basic Coordinate System (BCS) refers to the tool reference point even with active transformations. Otherwise, it refers to the tool tip (Tool Center Point - TCP).  
The method of operation of protection zones and working area limitations varies correspondingly.

24400	TRAF0_TYPE_4		C07	M1		
-	Definition of the 4th transformation in the channel		DWORD	NEW CONF		
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7	M

**Description:** This MD states the fourth available transformation in each channel.  
Same as TRAF0\_TYPE\_1, but for the fourth available transformation in the channel.  
References:  
/FB/, F2, "5-Axis Transformation"

24410	TRAF0_AXES_IN_4		C07	F2,M1		
-	Axis assignment for the 4th transformation in the channel		BYTE	NEW CONF		
-						
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** Axis assignment at the input point of the 4th transformation in the channel.  
Meaning is the same as TRAF0\_AXES\_IN\_1, but for the fourth available transformation in the channel.

24420	TRAFO_GEOAX_ASSIGN_TAB_4			C07	M1	
-	Assignment of geometry axes to channel axes for transformation 4			BYTE	NEW CONF	
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** This MD states the channel axes on which the axes of the cartesian coordinate system are mapped for active transformation 4.  
Otherwise the meaning corresponds to TRAFO\_GEOAX\_ASSIGN\_TAB\_1.

24426	TRAFO_INCLUDES_TOOL_4			C07	-	
-	Tool handling with active 4th transformation			BOOLEAN	NEW CONF	
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:** This machine data states for each channel whether the tool is handled during the 4th transformation or externally.  
This machine data is evaluated only with specific transformations.  
It is evaluated on the condition that the orientation of the tool with reference to the Basic Coordinate System cannot be changed by the transformation. In standard transformations, only "inclined-axis transformation" fulfills this condition.  
If this machine data is set, the Basic Coordinate System (BCS) refers to the tool reference point even with active transformations. Otherwise, it refers to the tool tip (Tool Center Point - TCP).  
The method of operation of protection zones and working area limitations varies correspondingly.

24430	TRAFO_TYPE_5			C07	M1	
-	Type of transformation 5 in the channel			DWORD	NEW CONF	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7	M

**Description:** Type of transformation available as the fifth in the channel. See MD24100 \$MC\_TRAFO\_TYPE\_1 for explanation.

24432	TRAFO_AXES_IN_5			C07	F2	
-	Axis assignment for transformation 5			BYTE	NEW CONF	
-						
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** Axis assignment at the input point of the 5th transformation. See TRAFO\_AXES\_IN\_1 for explanation.

24434	TRAFO_GEOAX_ASSIGN_TAB_5		C07	M1		
-	Assignment of geometry axes to channel axes for transformation 5		BYTE	NEW CONF		
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:**

This MD states the channel axes on which the axes of the cartesian coordinate system are mapped for active transformation 5.

Otherwise the meaning corresponds to TRAFO\_GEOAX\_ASSIGN\_TAB\_1.

24436	TRAFO_INCLUDES_TOOL_5		C07	-		
-	Tool handling with active 5th transformation		BOOLEAN	NEW CONF		
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:**

This machine data states for each channel whether the tool is handled during the 5th transformation or externally.

This machine data is evaluated only with specific transformations.

It is evaluated on the condition that the orientation of the tool with reference to the Basic Coordinate System cannot be changed by the transformation. In standard transformations, only "inclined-axis transformation" fulfills this condition.

If this machine data is set, the Basic Coordinate System (BCS) refers to the tool reference point even with active transformations. Otherwise, it refers to the tool tip (Tool Center Point - TCP).

The method of operation of protection zones and working area limitations varies correspondingly.

24440	TRAFO_TYPE_6		C07	-		
-	Type of transformation 6 in the channel		DWORD	NEW CONF		
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7	M

**Description:**

Type of transformation available as the sixth in the channel. See MD24100 \$MC\_TRAFO\_TYPE\_1 for explanation.

24442	TRAFO_AXES_IN_6		C07	-		
-	Axis assignment for transformation 6		BYTE	NEW CONF		
-						
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:**

Axis assignment at the input point of the 6th transformation. See TRAFO\_AXES\_IN\_1 for explanation.

24444	TRAFO_GEOAX_ASSIGN_TAB_6			C07	-	
-	Assignment of geometry axes to channel axes for transformation 6			BYTE	NEW CONF	
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:**

This MD states the channel axes on which the axes of the cartesian coordinate system are mapped for active transformation 6.

Otherwise the meaning corresponds to TRAFO\_GEOAX\_ASSIGN\_TAB\_1.

24446	TRAFO_INCLUDES_TOOL_6			C07	-	
-	Tool handling with active 6th transformation			BOOLEAN	NEW CONF	
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:**

This machine data states for each channel whether the tool is handled during the 6th transformation or externally.

This machine data is evaluated only with specific transformations.

It is evaluated on the condition that the orientation of the tool with reference to the Basic Coordinate System cannot be changed by the transformation. In standard transformations, only "inclined-axis transformation" fulfills this condition.

If this machine data is set, the Basic Coordinate System (BCS) refers to the tool reference point even with active transformations. Otherwise, it refers to the tool tip (Tool Center Point - TCP).

The method of operation of protection zones and working area limitations varies correspondingly.

24450	TRAFO_TYPE_7			C07	-	
-	Type of transformation 7 in the channel			DWORD	NEW CONF	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7	M

**Description:**

Type of transformation available as the seventh in the channel. See MD24100 \$MC\_TRAFO\_TYPE\_1 for explanation.

24452	TRAFO_AXES_IN_7			C07	-	
-	Axis assignment for transformation 7			BYTE	NEW CONF	
-						
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:**

Axis assignment at the input point of the 7th transformation. See TRAFO\_AXES\_IN\_1 for explanation.



24454	TRAFO_GEOAX_ASSIGN_TAB_7			C07	-	
-	Assignment of geometry axes to channel axes for transformation 7			BYTE	NEW CONF	
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** This MD states the channel axes on which the axes of the cartesian coordinate system are mapped for active transformation 7.  
Otherwise the meaning corresponds to TRAFO\_GEOAX\_ASSIGN\_TAB\_1.

24456	TRAFO_INCLUDES_TOOL_7			C07	-	
-	Tool handling with active 7th transformation			BOOLEAN	NEW CONF	
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:**

This machine data states for each channel whether the tool is handled during the 7th transformation or externally.

This machine data is evaluated only with specific transformations.

It is evaluated on the condition that the orientation of the tool with reference to the Basic Coordinate System cannot be changed by the transformation. In standard transformations, only "inclined-axis transformation" fulfills this condition.

If this machine data is set, the Basic Coordinate System (BCS) refers to the tool reference point even with active transformations. Otherwise, it refers to the tool tip (Tool Center Point - TCP).

The method of operation of protection zones and working area limitations varies correspondingly.

24460	TRAFO_TYPE_8			C07	F2,TE4,M1	
-	Type of transformation 8 in the channel			DWORD	NEW CONF	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7	M

**Description:** Type of transformation available as the eighth in the channel. See MD24100 \$MC\_TRAFO\_TYPE\_1 for explanation.

24462	TRAFO_AXES_IN_8			C07	F2	
-	Axis assignment for transformation 8			BYTE	NEW CONF	
-						
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** Axis assignment at the input point of the 8th transformation. See TRAFO\_AXES\_IN\_1 for explanation.

24464	TRAFO_GEOAX_ASSIGN_TAB_8			C07	-	
-	Assignment of geometry axes to channel axes for transformation 8			BYTE	NEW CONF	
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** This MD states the channel axes on which the axes of the cartesian coordinate system are mapped for active transformation 8.  
Otherwise the meaning corresponds to TRAFO\_GEOAX\_ASSIGN\_TAB\_1.

24466	TRAFO_INCLUDES_TOOL_8			C07	-	
-	Tool handling with 8th active transformation			BOOLEAN	NEW CONF	
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:** This machine data states for each channel whether the tool is handled during the 8th transformation or externally.  
This machine data is evaluated only with specific transformations.  
It is evaluated on the condition that the orientation of the tool with reference to the Basic Coordinate System cannot be changed by the transformation. In standard transformations, only "inclined-axis transformation" fulfills this condition.  
If this machine data is set, the Basic Coordinate System (BCS) refers to the tool reference point even with active transformations. Otherwise, it refers to the tool tip (Tool Center Point - TCP).  
The method of operation of protection zones and working area limitations varies correspondingly.

24470	TRAFO_TYPE_9			C07	M1	
-	Type of transformation 9 in the channel			DWORD	NEW CONF	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7	M

**Description:** Type of transformation available as the ninth in the channel. See MD24100 \$MC\_TRAFO\_TYPE\_1 for explanation.

24472	TRAFO_AXES_IN_9			C07	-	
-	Axis assignment for transformation 9			BYTE	NEW CONF	
-						
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** Axis assignment at the input point of the 9th transformation. See TRAFO\_AXES\_IN\_1 for explanation.

24474	TRAFO_GEOAX_ASSIGN_TAB_9		C07	-		
-	Assignment of geometry axes to channel axes for transformation 9		BYTE	NEW CONF		
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** This MD states the channel axes on which the axes of the cartesian coordinate system are mapped for active transformation 9.

24476	TRAFO_INCLUDES_TOOL_9		C07	-		
-	Treatment of tool with active 9th transformation		BOOLEAN	NEW CONF		
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:** Same as TRAFO\_INCLUDES\_TOOL\_1, but for the 9th transformation.

24480	TRAFO_TYPE_10		C07	F2,M1		
-	Transformation 10 in channel		DWORD	NEW CONF		
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7	M

**Description:** Same as TRAFO\_TYPE\_1, but for the tenth available transformation in the channel.

24482	TRAFO_AXES_IN_10		C07	F2,M1		
-	Axis assignment for transformation 10		BYTE	NEW CONF		
-						
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** Axis assignment at the input of the 10th transformation. See TRAFO\_AXES\_IN\_1 for explanation.

24484	TRAFO_GEOAX_ASSIGN_TAB_10		C07	M1		
-	Assignment of geometry axes to channel axes f. transformation 10		BYTE	NEW CONF		
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** Assignment table of geometry axes with transformation 10  
Same as AXCONF\_GEOAX\_ASSIGN\_TAB, but only effective when transformation 10 is active.

24486	TRAFO_INCLUDES_TOOL_10		C07	-		
-	Treatment of tool with active 10th transformation		BOOLEAN	NEW CONF		
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:** Same as TRAFO\_INCLUDES\_TOOL\_1, but for the 10th transformation.

24500	TRAFO5_PART_OFFSET_1			C07	F2,M1	
mm	Offset vector of 5-axis transformation 1			DOUBLE	NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** This machine data designates an offset of the workpiece carrier for the first (MD24500 \$MC\_TRAFO5\_PART\_OFFSET\_1) or second (MD24600 \$MC\_TRAFO5\_PART\_OFFSET\_2) 5-axis transformation of a channel, and has a specific meaning for the different machine types:

Machine type 1 (two-axis swivel head for tool):  
Vector from machine reference point to zero point of workpiece table. This will generally be a zero vector if both coincide.

Machine type 2 (two-axis rotary table for workpiece):  
Vector from the second rotary joint of workpiece rotary table to zero point of table.

Machine type 3 (single-axis rotary table for workpiece and single-axis swivel head for tool):  
Vector from rotary joint of workpiece table to zero point of table.

MD irrelevant:  
if the "5-Axis Transformation" option is not installed.

24510	TRAFO5_ROT_AX_OFFSET_1			C07	F2,M1	
degrees	Position offset of rotary axes 1/2/3 for 5-axis transformation 1			DOUBLE	NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** This machine data designates the angular offset of the first or second rotary axis in degrees for the first 5-axis transformation of a channel.

MD irrelevant:  
if the "5-Axis Transformation" option is not installed.

24520	TRAFO5_ROT_SIGN_IS_PLUS_1			C07	F2,M1	
-	Sign of rotary axis 1/2/3 for 5-axis transformation 1			BOOLEAN	NEW CONF	
-						
-	3	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:** This machine data designates the sign with which the two rotary axes are included in the first 5-axis transformation of a channel.

MD = 0 (FALSE):  
Sign is reversed.

MD = 1 (TRUE) :  
Sign is not reversed and the traversing direction is defined according to MD32100 \$MA\_AX\_MOTION\_DIR.

This machine data does not mean that the rotational direction of the rotary axis concerned is to be reversed, but specifies whether its motion is in the mathematically positive or negative direction when the axis is moving in the positive direction.

The result of a change to this machine data is not therefore a change in the rotational direction, but a change in the compensatory motion of the linear axes.

However, if a directional vector and thus, implicitly, a compensatory motion is specified, the result is a change in the rotational direction of the rotary axis concerned.

On a real machine, therefore, the machine data may be set to FALSE (or zero) only if the rotary axis is turning in an anti-clockwise direction when moving in a positive direction.

MD irrelevant:

if the "5-Axis Transformation" option is not installed.

24530	TRAF05_NON_POLE_LIMIT_1		C07	F2	
degrees	Definition of pole range for 5-axis transformation 1		DOUBLE	NEW CONF	
-					
-	-	2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0...	-	-	7/7 M

**Description:**

This MD designates a limit angle for the fifth axis of the first 5-axis transformation with the following properties: if the path runs below this angle past the pole, the traverse will pass through the pole.

For the 5-axis transformation, the two orientation axes of the tool form a coordinate system of length and width circles on a spherical surface. If orientation programming (that is the orientation vector lies in a plane) leads the path so close past the pole that the angle defined by the MD is undershot then there is a deviation from the defined interpolation such that the interpolation runs through the pole.

Alarm 14112 is output if this modification of the path gives a deviation greater than a tolerance defined by MD24540 TRAF05\$MC\_TRAFO5\_POLE\_LIMIT\_1.

MD irrelevant:

If the "5-Axis Transformation" option is not installed.

Also irrelevant with programming in the machine coordinate system ORIMKS.

Related to:

MD: TRAF05\_POLE\_LIMIT\_n

24540	TRAF05_POLE_LIMIT_1		C07	F2,M1	
degrees	End angle tolerance with interpolation through pole for 5-axis transf.		DOUBLE	NEW CONF	
-					
-	-	2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0...	-	-	7/7 M

**Description:**

This MD designates an end angle tolerance for the fifth axis of the first 5-axis transformation with the following properties:

With the interpolation through the pole point, only the fifth axis moves, the fourth axis retains its starting position. If a motion is programmed that does not run exactly through the pole point but is to run near the pole within the area given by MD: TRAF05\_NON\_POLE\_LIMIT\_n then there is a deviation from the defined path as the interpolation runs exactly through the pole point. This results in a deviation in the position of the end point of the fourth axis (the polar axis) from the programmed value.

This MD defines the angle by which the polar axis may deviate from the programmed value with 5-axis transformation when switching from the programmed interpolation to the interpolation through the pole point.

Alarm 14112 is output if there is a greater deviation and the interpolation is not executed.

MD irrelevant:

If the "5-Axis Transformation" option is not installed.

1.3 NC machine data

Also irrelevant with programming in the machine coordinate system ORIMKS.

Related to:

MD2... \$MC\_TRAFO5\_NON\_POLE\_LIMIT\_n

24542	TRAFO5_POLE_TOL_1	C07	-
degrees	End angle tolerance for tool orientation	DOUBLE	NEW CONF
-			
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-
			7/7 M

**Description:** End angle tolerance for interpolation through the pole for the 1st 5/6-axis transformation.  
 This MD is evaluated only by the generic 5/6-axis transformation.  
 If the programmed end orientation lies within the body cone and within the tolerance cone specified by this MD, the pole axis does not move and retains its starting positions. The other rotary axis, however, moves to the programmed angle.  
 This results in the end orientation deviating from the programmed orientation.  
 Another function of this MD is the handling of the programmed end orientation with non-orthogonal kinematics. As a rule, not all tool orientations can be set with these machine kinematics.  
 Alarm 14112 is output if an orientation is programmed that lies outside the settable range of the orientation cone (the programmed orientation path is not possible).  
 However, if the programmed orientation still lies within the range defined by MD \$MC\_TRAFO5\_POLE\_TOL, an alarm is not output, and the programmed orientation is accepted.  
 However, the programmed orientation is corrected so that the orientation remains stationary at the edge of the settable range.  
 The maximum active value of this MD is the value of MD TRAFO5\_POLE\_LIMIT\_1, which is used to define the body cone.

24550	TRAFO5_BASE_TOOL_1	C07	F2,M1,W1
mm	Vector of base tool on activation of 5-axis transformation 1	DOUBLE	NEW CONF
-			
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-
			7/7 M

**Description:** This MD specifies the vector of the base tool which takes effect when the first transformation is activated without a length compensation being selected. Programmed length compensations have an additive effect with respect to the base tool.  
 MD irrelevant:  
 if the "5-Axis Transformation" option is not installed.

24558	TRAF05_JOINT_OFFSET_PART_1		C07	F2,M1,W1		
mm	Vector of kinematic table offset		DOUBLE	NEW CONF		
-						
-	3	0.0, 0.0, 0.0,0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** This machine data is only evaluated for generic 5-axis transformations with rotatable workpiece and rotatable tool (TRAF0\_TYPE = 56, mixed kinematics). It indicates the part of the vector between table and turning head assigned to the table.

Only the sum of this MD and MD TRAF05\_JOINT\_OFFSET is entered in the transformation equations.

A difference results only when reading the whole tool length using the function GETTCOR. In this case, only the MD TRAF05\_JOINT\_OFFSET is considered.

On a machine with mixed kinematics, this machine data can be used to assign the machine data of the 5-axis transformation and the parameters of the orientable tool holder uniquely to one another as follows:

Orientable tool holder	5-axis transformation (1st transformation)
1	TRAF05_JOINT_OFFSET_1
2	TRAF05_BASE_TOOL_1
3	TRAF05_JOINT_OFFSET_PART_1
4	TRAF05_PART_OFFSET_1

24560	TRAF05_JOINT_OFFSET_1		C07	F2,W1		
mm	Vector of the kinem.offset of the 1st 5-axis transf. in channel		DOUBLE	NEW CONF		
-						
-	3	0.0, 0.0, 0.0,0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** This machine data designates the vector between first and second rotary joint for the first transformation of a channel and has a specific meaning for the various machine types:

Machine type 1 (two-axis swivel head for tool) and:

Machine type 2 (two-axis rotary table for workpiece):

Vector between first and second rotary joint of tool rotary head or workpiece rotary table.

Machine type 3 (single-axis rotary table for workpiece and single-axis swivel head for tool):

Vector from machine reference point to joint of workpiece table.

MD irrelevant:

if the "5-Axis Transformation" option is not installed. The same applies for 3-axis and 4-axis transformations.

24561	TRAF06_JOINT_OFFSET_2_3_1		C07	F2		
mm	Vector of kinematic offset		DOUBLE	NEW CONF		
-						
-	3	0.0, 0.0, 0.0,0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** In the case of 6-axis transformations, defines the offset between the 2nd and third rotary axes for the 1st transformation of each channel.

24562	TRAF05_TOOL_ROT_AX_OFFSET_1			C07	M1	
mm	Offset of swivel point of 1st rotary axis on 5-axis transform. 1			DOUBLE	NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** In the case of a 5-axis transformation with a swiveling linear axis, the value indicates the offset of the rotary axis which swivels the linear axis with reference to machine zero for the 1st transformation.

MD irrelevant for:

other 5-axis transformations

Related to:

MD24662 \$MC\_TRAFO5\_TOOL\_ROT\_AX\_OFFSET\_2

24564	TRAF05_NUTATOR_AX_ANGLE_1			C07	M1	
degrees	Nutating head angle in 5-axis transformation			DOUBLE	NEW CONF	
-						
-	-	45.0, 45.0, 45.0, 45.0, 45.0, 45.0, 45.0...	-89.	89.	7/7	M

**Description:** Angle between the second rotary axis and the axis corresponding to it in the rectangular coordinate system

MD irrelevant for: Transformation type other than "universal milling head".

Related to:

MD2.... \$MC\_TRAFO\_TYPE\_n...

24566	TRAF05_NUTATOR_VIRT_ORIAX_1			C07	M1	
-	Virtual orientation axes			BOOLEAN	NEW CONF	
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/7	M

**Description:** The MD has the following values:

0: The axis angles of the orientation axes are machine axis angles.

1: Virtual orientation axes are defined that form a rectangular coordinate system and the axis angles are rotations around these virtual axes.

24570	TRAF05_AXIS1_1			C07	F2,M1,W1	
-	Direction of 1st rotary axis			DOUBLE	NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** The MD indicates the vector that describes the direction of the first rotary axis in the general 5-axis transformation (TRAF0\_TYPE\_\* = 24).

The vector can have any magnitude.

Example:

Both with (0, 1, 0) and with (0, 7.21, 0), the same axis is described (in the direction of the 2nd geometry axis, i.e. usually Y).

Valid for the first transformation of a channel.



24572	TRAFO5_AXIS2_1		C07	F2,M1,W1		
-	Direction of 2nd rotary axis		DOUBLE	NEW CONF		
-						
-	3	0.0, 0.0, 0.0,0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** Indicates the vector that describes the direction of the second rotary axis in the general 5-axis transformation (TRAFO\_TYPE\_\* = 24, 40, 56).  
The vector can have any magnitude except zero.  
Example:  
Both with (0, 1, 0) and with (0, 7.21, 0), the same axis is described (in the direction of the 2nd geometry axis, i.e. usually Y).  
Valid for the first transformation of a channel.

24573	TRAFO5_AXIS3_1		C07	F2		
-	Direction of the 3rd rotary axis		DOUBLE	NEW CONF		
-						
-	3	0.0, 0.0, 0.0,0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** Indicates the vector which defines the direction of the third rotary axis in the case of the general 6-axis transformation (TRAFO\_TYPE\_\* = 24, 40, 56, 57).  
The vector may have any value except zero.  
Example:  
The same axis is defined with both (0, 1, 0) and (0, 7.21, 0) (in the direction of the 2nd geometry axis, that is as a rule Y).  
Valid for the first orientation transformation of a channel.

24574	TRAFO5_BASE_ORIENT_1		C07	F2,M1		
-	Vector of the tool base orientation for 5-axis transformation		DOUBLE	NEW CONF		
-						
-	3	0.0, 0.0, 0.0,0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** Indicates the vector of the tool orientation in the general 5-axis transformation (TRAFO\_TYPE\_\* = 24, 40, 56) if this is not defined on the transformation call or read from a programmed tool.  
The vector can have any magnitude except zero.

24576	TRAFO6_BASE_ORIENT_NORMAL_1		C07	F2		
-	Normal tool vector in 6-axis transformation		DOUBLE	NEW CONF		
-						
-	3	0.0, 1.0, 0.0,0.0, 1.0, 0.0...	-	-	7/7	M

**Description:** Indicates a vector that is perpendicular to the tool orientation (TRAFO5\_BASE\_ORIENTATION\_1) in the case of the general 6-axis transformation (TRAFO\_TYPE\_\* = 24, 40, 56, 57).  
If TRAFO6\_BASE\_ORIENT\_NORMAL\_1 and TRAFO5\_BASE\_ORIENTATION\_1 are neither orthogonal nor parallel, then the two vectors are orthogonalized by modifying the normal vector. The two vectors must not be parallel.  
The vector may have any value other than zero.  
Valid for the first orientation transformation of a channel.

24580	TRAF05_TOOL_VECTOR_1			C07	F2	
-	Direction of orientation vector for the first 5-axis transf.			BYTE	NEW CONF	
-						
-	-	2, 2, 2, 2, 2, 2, 2...	0	2	7/2	M

**Description:** Indicates the direction of the orientation vector for the first 5-axis transformation for each channel.  
0: Tool vector in x direction  
1: Tool vector in y direction  
2: Tool vector in z direction

24582	TRAF05_TCARR_NO_1			C07	F2	
-	TCARR number for the 1st 5-axis transformation			DWORD	NEW CONF	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7	M

**Description:** If the value of this machine data is not zero and if MD2....  
\$SMC\_TRAFO\_TYPE..., which points to the first orientation transformation, has the value 72, then the kinematics data (offsets etc.) that parameterize the first 5-axis transformation, will not be read from the machine data, but from the data of the orientable tool carrier to which this machine data refers.

24585	TRAF05_ORIAX_ASSIGN_TAB_1			C07	F2,M1	
-	Orientation axis / channel axis assignment transformation 1			BYTE	NEW CONF	
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/2	M

**Description:** Assignment table of the orientation axes for 5-axis transformation 1  
Only active with active 5-axis transformation 1.

24590	TRAF05_ROT_OFFSET_FROM_FR_1			C01, C07	F2	
-	Offset of transformation rotary axes from WO.			BOOLEAN	NEW CONF	
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/2	M

**Description:** The programmable offset for orientation axes is automatically accepted from the work offset active for the orientation axes on switch-on of an orientation transformation.

24594	TRAF07_EXT_ROT_AX_OFFSET_1			C07	F2	
degrees	Position offset of the external rotary axes for 7-axis transformation 1			DOUBLE	NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** This machine data designates the angular offset of the external rotary axis in degrees for the first 7-axis transformation of a channel.  
MD irrelevant:  
if the "5-Axis Transformation" option is not installed.

24595	TRAFO7_EXT_AXIS1_1		C07	F2	
-	Direction of the 1st external rotary axis		DOUBLE	NEW CONF	
-					
-	3	0.0, 0.0, 0.0,0.0, 0.0, 0.0...	-	-	7/7 M

**Description:** The MD indicates the vector that describes the direction of the first external rotary axis in the general 5/6-axis transformation (TRAFO\_TYPE\_\* = 24). The vector can have any magnitude.

Example:

Both with (0, 1, 0) and with (0, 7.21, 0), the same axis is described (in the direction of the 2nd geometry axis, i.e. usually Y).

Valid for the first transformation of a channel.

24600	TRAFO5_PART_OFFSET_2		C07	M1	
mm	Offset vector of the 2nd 5-axis transformation in the channel		DOUBLE	NEW CONF	
-					
-	3	0.0, 0.0, 0.0,0.0, 0.0, 0.0...	-	-	7/7 M

**Description:** This machine data designates an offset of the workpiece carrier for the first (MD24500 \$MC\_TRAFO5\_PART\_OFFSET\_1) or second (MD24600 \$MC\_TRAFO5\_PART\_OFFSET\_2) 5-axis transformation of a channel, and has a specific meaning for the different machine types:

Machine type 1 (two-axis swivel head for tool):

Vector from machine reference point to zero point of workpiece table. This will generally be a zero vector if both coincide.

Machine type 2 (two-axis rotary table for workpiece):

Vector from second joint of workpiece rotary table to zero point of table.

Machine type 3 (single-axis rotary table for workpiece and single-axis swivel head for tool):

Vector from joint of workpiece table to zero point of table.

MD irrelevant:

if the "5-Axis Transformation" option is not installed.

24610	TRAFO5_ROT_AX_OFFSET_2		C07	M1	
degrees	Position offset of rotary axes 1/2/3		DOUBLE	NEW CONF	
-					
-	3	0.0, 0.0, 0.0,0.0, 0.0, 0.0...	-	-	7/7 M

**Description:** Indicates the offset for each channel of the rotary axes in degrees for the second orientation transformation.

24620	TRAFO5_ROT_SIGN_IS_PLUS_2		C07	F2,M1	
-	Sign of rotary axis 1/2/3 for 5-axis transformation 2		BOOLEAN	NEW CONF	
-					
-	3	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7 M

**Description:** This machine data designates the sign with which the two rotary axes are included in the second 5-axis transformation of a channel.

MD = 0 (FALSE):

Sign is reversed.

1.3 NC machine data

MD = 1 (TRUE) :

Sign is not reversed and the traversing direction is defined according to MD32100 \$MA\_AX\_MOTION\_DIR.

This machine data does not mean that the rotational direction of the rotary axis concerned is to be reversed, but specifies whether its motion is in the mathematically positive or negative direction when the axis is moving in the positive direction.

The result of a change to this data is not therefore a change in the rotational direction, but a change in the compensatory motion of the linear axes. However, if a directional vector and thus, implicitly, a compensatory motion is specified, the result is a change in the rotational direction of the rotary axis concerned.

On a real machine, therefore, the machine data may be set to FALSE (or zero) only if the rotary axis is turning in an anti-clockwise direction when moving in a positive direction.

MD irrelevant:

if the "5-Axis Transformation" option is not installed.

24630	TRAF05_NON_POLE_LIMIT_2			C07	F2,M1	
degrees	Definition of pole range for 5-axis transformation 2			DOUBLE	NEW CONF	
-						
-	-	2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0...	-	-	7/7	M

**Description:**

This MD designates a limit angle for the fifth axis of the second 5-axis transformation with the following properties: if the path runs past the pole below this angle, the traverse passes through the pole.

In a 5-axis transformation, the two orientation axes of the tool form a coordinate system of length and width circles on a spherical surface. If orientation programming (that is the orientation vector lies in a plane) leads the path so closely past the pole that the angle defined by this MD is undershot, then there is a deviation from the defined interpolation such that the interpolation runs through the pole.

Alarm 14112 is output if this modification of the path results in a deviation greater than a tolerance defined by MD24640 \$MC\_TRAFO5\_POLE\_LIMIT\_2.

MD irrelevant:

If the "5-Axis Transformation" option is not installed.

Also irrelevant with programming in the machine coordinate system ORIMKS.

Related to:

MD2.... \$MC\_TRAFO5\_POLE\_LIMIT...

24640	TRAF05_POLE_LIMIT_2			C07	F2,M1	
degrees	End angle tolerance for tool orientation			DOUBLE	NEW CONF	
-						
-	-	2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0...	-	-	7/7	M

**Description:**

This MD designates an end angle tolerance for the fifth axis of the second 5-axis transformation with the following properties:

With the interpolation through the pole point, only the fifth axis moves, the fourth axis retains its starting position. If a motion is programmed that does not run exactly through the pole point but is to run near the pole within the area given by MD: TRAF05\_NON\_POLE\_LIMIT\_n then there is a deviation from the defined path as the interpolation runs exactly through the pole point. This results in a deviation in the position of the end point of the fourth axis (the polar axis) from the programmed value.

This MD defines the angle by which the polar axis may deviate from the programmed value with 5-axis transformation when switching from the programmed interpolation to the interpolation through the pole point.

An error message (alarm 14112) is output if there is a greater deviation and the interpolation is not executed.

MD irrelevant:

If the "5-Axis Transformation" option is not installed.

Also irrelevant with programming in the machine coordinate system ORIMKS.

Related to:

MD24530 \$MC\_TRAFO5\_NON\_POLE\_LIMIT\_1

24642	TRAF05_POLE_TOL_2	C07	-			
degrees	End angle tolerance for pole interpolation	DOUBLE	NEW CONF			
-						
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** End angle tolerance for interpolation through the pole for the 2nd 5/6-axis transformation.

This MD is evaluated only by the generic 5/6-axis transformation.

If the programmed end orientation lies within the body cone and within the tolerance cone specified by this MD, the pole axis does not move and retains its starting positions.

However, the other rotary axis moves to the programmed angle.

This results in the end orientation deviating from the programmed orientation.

Another function of this MD is the handling of the programmed end orientation with non-orthogonal kinematics. As a rule, not all tool orientations can be set with these machine kinematics.

Alarm 14112 is output if an orientation is programmed that lies outside the settable range of the orientation cone (the programmed orientation path is not possible).

However, if the programmed orientation still lies within the range defined by MD \$MC\_TRAFO5\_POLE\_TOL, an alarm is not output, and the programmed orientation is accepted.

However, the programmed orientation is corrected so that the orientation remains stationary at the edge of the settable range.

The maximum active value of this MD is the value of MD TRAF05\_POLE\_LIMIT\_1, which is used to define the body cone.

24650	TRAF05_BASE_TOOL_2			C07	M1,W1	
mm	Vector of base tool on activation of 5-axis transformation 2			DOUBLE	NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** This MD indicates the vector of the base tool which takes effect when the second transformation is activated without a length compensation being selected. Programmed length compensations have an additive effect with respect to the base tool.

MD irrelevant:

if the "5-Axis Transformation" option is not installed.

24658	TRAF05_JOINT_OFFSET_PART_2			C07	M1,W1	
mm	Vector of kinematic table offset			DOUBLE	NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** Same as MD24558 \$MC\_TRAFO5\_JOINT\_OFFSET\_PART\_1, but for the second transformation.

24660	TRAF05_JOINT_OFFSET_2			C07	W1	
mm	Vector of the kinem.offset of the 2nd 5-axis transformation			DOUBLE	NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** This machine data designates the vector between first and second rotary joint for the first transformation of a channel and has a specific meaning for the various machine types:

Machine type 1 (two-axis swivel head for tool) and:

Machine type 2 (two-axis rotary table for workpiece):

Vector between first and second rotary joint of tool rotary head or workpiece rotary table.

Machine type 3 (single-axis rotary table for workpiece and single-axis swivel head for tool):

Vector from machine reference point to joint of workpiece table.

MD irrelevant:

if the "5-Axis Transformation" option is not installed. The same applies for 3-axis and 4-axis transformations.

24661	TRAF06_JOINT_OFFSET_2_3_2			C07	-	
mm	Vector of kinematic offset			DOUBLE	NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** As TRAF06\_JOINT\_OFFSET\_2\_3\_1 but for the second transformation.

24662	TRAF05_TOOL_ROT_AX_OFFSET_2		C07	M1
mm	Offset swivel point of 2nd 5-axis transformation (swivelled linear axis)		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-
			7/7	M

**Description:** In the case of 5-axis transformation with swiveled linear axis, the value indicates the offset of the rotary axis which swivels the linear axis with reference to machine zero for the 2nd transformation.

MD irrelevant for:  
other 5-axis transformations

Related to:  
MD24562 \$MC\_TRAFO5\_TOOL\_ROT\_AX\_OFFSET\_1

24664	TRAF05_NUTATOR_AX_ANGLE_2		C07	M1
degrees	Nutating head angle		DOUBLE	NEW CONF
-				
-	-	45.0, 45.0, 45.0, 45.0, 45.0, 45.0, 45.0...	-89.	89.
			7/7	M

**Description:** Angle between the second rotary axis and the axis corresponding to it in the rectangular coordinate system

MD irrelevant for:  
Transformation type other than "universal milling head"

Related to:  
MD24564 \$MC\_TRAFO5\_NUTATOR\_AX\_ANGLE\_1

24666	TRAF05_NUTATOR_VIRT_ORIAX_2		C07	M1
-	Virtual orientation axes		BOOLEAN	NEW CONF
-				
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-
			7/7	M

**Description:** The MD has the following values:

0: The axis angles of the orientation axes are machine axis angles.

1: Virtual orientation axes are defined that form a rectangular coordinate system and the axis angles are rotations around these virtual axes.

24670	TRAF05_AXIS1_2		C07	F2,M1
-	Direction of 1st rotary axis		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-
			7/7	M

**Description:** As for TRAF05\_AXIS1\_1 but for the second orientation transformation of a channel.

24672	TRAF05_AXIS2_2		C07	M1
-	Direction of 2nd rotary axis		DOUBLE	NEW CONF
-				
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-
			7/7	M

**Description:** As for TRAF05\_AXIS2\_1 but for the second transformation of a channel.

24673	TRAF05_AXIS3_2			C07	-	
-	Direction of the 3rd rotary axis			DOUBLE	NEW CONF	
-						
-	3	0,0, 0,0, 0,0,0,0, 0,0, 0,0...	-	-	7/7	M

**Description:** As TRAF05\_AXIS3\_1 but for the second orientation transformation of a channel.

24674	TRAF05_BASE_ORIENT_2			C07	F2,M1	
-	Basic tool orientation			DOUBLE	NEW CONF	
-						
-	3	0,0, 0,0, 0,0,0,0, 0,0, 0,0...	-	-	7/7	M

**Description:** As for TRAF05\_BASE\_ORIENT\_1 but for the second transformation of a channel.

24676	TRAF06_BASE_ORIENT_NORMAL_2			C07	-	
-	Normal tool vector			DOUBLE	NEW CONF	
-						
-	3	0,0, 1,0, 0,0,0,0, 1,0, 0,0...	-	-	7/7	M

**Description:** As TRAF06\_BASE\_ORIENT\_NORMAL\_1 but for the second orientation transformation

24680	TRAF05_TOOL_VECTOR_2			C07	F2	
-	Direction of orientation vector			BYTE	NEW CONF	
-						
-	-	2, 2, 2, 2, 2, 2, 2, 2...	0	2	7/2	M

**Description:** Indicates the direction of the orientation vector for the second 5-axis transformation for each channel.

0: Tool vector in x direction

1: Tool vector in y direction

2: Tool vector in z direction

24682	TRAF05_TCARR_NO_2			C07	F2	
-	TCARR number for the 2nd 5-axis transformation			DWORD	NEW CONF	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7	M

**Description:** Same as TRAF05\_TCARR\_NO\_1, but for the second orientation transformation.

24685	TRAF05_ORIAX_ASSIGN_TAB_2			C07	F2	
-	Orientation axis / channel axis assignment transformation 1			BYTE	NEW CONF	
-						
-	3	0, 0, 0,0, 0, 0,0, 0, 0, 0, 0, 0...	0	20	7/2	M

**Description:** Assignment table of the orientation axes for 5-axis transformation 2  
Only active with active 5-axis transformation 2.



24690	TRAFO5_ROT_OFFSET_FROM_FR_2		C01, C07	-		
-	Offset of transformation rotary axes from WO.		BOOLEAN	NEW CONF		
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/2	M

**Description:** Same as TRAFO5\_ROT\_OFFSET\_FROM\_FR\_1, but for the 2nd transformation of a channel

24694	TRAFO7_EXT_ROT_AX_OFFSET_2		C07	F2		
degrees	Position offset of the external rotary axes for 7-axis transformation 2		DOUBLE	NEW CONF		
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** This machine data designates the angular offset of the external rotary axis in degrees for the second 7-axis transformation of a channel.

MD irrelevant:

if the "5-Axis Transformation" option is not installed.

24695	TRAFO7_EXT_AXIS1_2		C07	F2		
-	Direction of the 1st external rotary axis		DOUBLE	NEW CONF		
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** The MD indicates the vector that describes the direction of the second external rotary axis in the general 5/6-axis transformation (TRAFO\_TYPE\_\* = 24). The vector can have any magnitude.

Example:

Both with (0, 1, 0) and with (0, 7.21, 0), the same axis is described (in the direction of the 2nd geometry axis, i.e. usually Y).

Valid for the first transformation of a channel.

24700	TRAANG_ANGLE_1		C07	M1		
degrees	Angle between Cartesian axis and real (inclined) axis		DOUBLE	NEW CONF		
-						
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** Indicates for the first agreed TRAANG transformation of the channel the angle of the inclined axis in degrees between the 1st machine axis and the 1st basic axis while TRAANG is active. The angle is measured positively clockwise.

Related to:

MD24750 \$MC\_TRAANG\_ANGLE\_2

24710	TRAANG_BASE_TOOL_1			C07	M1	
mm	Vector of base tool for 1st TRAANG transformation			DOUBLE	NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** Indicates a basic offset of the tools zero for the 1st TRAANG transformation. The offset is referenced to the geometry axes valid when TRAANG is active. The basic offset is included with and without selection of the tool length compensation. Programmed length corrections have an additive effect with respect to the basic tool.

The index *i* takes the values 0, 1, 2 for the 1st to 3rd geometry axes.

Related to:

MD24760 \$MC\_TRAANG\_BASE\_TOOL\_2

24720	TRAANG_PARALLEL_VELO_RES_1			C07	M1	
-	Velocity margin for 1st TRAANG transformation			DOUBLE	NEW CONF	
-						
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	0.0	1.0	7/7	M

**Description:** Indicates the axis velocity reserve for jog, positioning and oscillating movements for each channel for the first TRAANG transformation which is held ready on the parallel axis (see MD2.... \$MC\_TRAFO\_AXES\_IN\_...[1]) for the compensating movement.

Velocity reserve to be provided for jog, positioning and oscillating movements on the parallel axis to handle the compensating movement as a consequence of the inclined axis.

0.0 means that the control or the transformation itself determines the reserve according to the angle of the inclined axis and the velocity capacity of the inclined and parallel axes. - The criterion for this is that the same velocity limit has to be maintained in the direction of the parallel axis and the (virtual) axis at right-angles to it.

>0.0 means that a fixed reserve has been set (MD24720 \$MC\_TRAANG\_PARALLEL\_VELO\_RES\_1 \* MD32000 \$MA\_MAX\_AX\_VELO of the parallel axis). The velocity capacity in the virtual axis is determined by this. The lower MD24720 \$MC\_TRAANG\_PARALLEL\_VELO\_RES\_1 has been set, the lower it is

Related to:

MD24771 \$MC\_TRAANG\_PARALLEL\_ACCEL\_RES\_2

24721	TRAANG_PARALLEL_ACCEL_RES_1			C07	M1	
-	Acceleration margin of parallel axis for the 1st TRAANG transf.			DOUBLE	NEW CONF	
-						
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	0.0	1.0	7/7	M

**Description:** Indicates the acceleration margin for jog, positioning and oscillating movements for each channel for the first TRAANG transformation which is held ready on the parallel axis (see MD2.... \$MC\_TRAFO\_AXES\_IN\_...[1]) for the compensating movement.

Related to:

MD24720 \$MC\_TRAANG\_PARALLEL\_VELO\_RES\_1

24750	TRAANG_ANGLE_2	C07	M1
degrees	Angle between Cartesian axis and real (inclined) axis	DOUBLE	NEW CONF
-			
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	- - 7/7 M

**Description:** Indicates for the second agreed TRAANG transformation of the channel the angle of the inclined axis in degrees between the 1st machine axis and the 1st basic axis while TRAANG is active. The angle is measured positively clockwise.

Related to:

MD24700 \$MC\_TRAANG\_ANGLE\_1

24760	TRAANG_BASE_TOOL_2	C07	M1
mm	Vector of base tool for 2nd TRAANG transformation	DOUBLE	NEW CONF
-			
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	- - 7/7 M

**Description:** Indicates a basic offset of the tools zero for the 2nd TRAANG transformation. The offset is referenced to the geometry axes valid when TRAANG is active. The basic offset is included with and without selection of the tool length compensation. Programmed length corrections have an additive effect with respect to the basic tool.

The index i takes the values 0, 1, 2 for the 1st to 3rd geometry axes.

Related to:

MD24710 \$MC\_TRAANG\_BASE\_TOOL\_1

24770	TRAANG_PARALLEL_VELO_RES_2	C07	M1
-	Velocity margin for 2nd TRAANG transformation	DOUBLE	NEW CONF
-			
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	0.0 1.0 7/7 M

**Description:** Indicates the axis velocity reserve for jog, positioning and oscillating movements for each channel for the second TRAANG transformation which is held ready on the parallel axis (see MD2.... \$MC\_TRAFO\_AXES\_IN\_...[1]) for the compensating movement.

Related to:

MD24771 \$MC\_TRAANG\_PARALLEL\_ACCEL\_RES\_2

24771	TRAANG_PARALLEL_ACCEL_RES_2	C07	M1
-	Acceler. margin of parallel axis for the 2nd TRAANG transform.	DOUBLE	NEW CONF
-			
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	0.0 1.0 7/7 M

**Description:** Indicates the axis acceleration margin for jog, positioning and oscillating movements which is held ready on the parallel axis (see MD2.... \$MC\_TRAFO\_AXES\_IN\_...[1]) for the compensatory movement; MD setting applies to the second TRAANG transformation for each channel.

Related to:

\$MC\_TRAANG\_PARALLEL\_RES\_1

24800	TRACYL_ROT_AX_OFFSET_1	C07	M1,K2
degrees	Offset of rotary axis for the 1st TRACYL transformation	DOUBLE	NEW CONF
-			
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-
			7/7
			M

**Description:** Indicates the offset of the rotary axis for the first agreed TRACYL transformation in degrees in relation to the neutral position while TRACYL is active.  
Related to:  
MD24850 \$MC\_TRACYL\_ROT\_AX\_OFFSET\_2

24805	TRACYL_ROT_AX_FRAME_1	C07	M1
-	Rotary axis offset TRACYL 1	BYTE	NEW CONF
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
			2
			7/7
			M

**Description:** 0: axial rotary axis offset is not considered.  
1: axial rotary axis offset is considered.  
2: axial rotary axis offset is considered until SZS.  
SZS frames include transformed axial rotary axis offsets.

24806	TRACYL_BASE_TOOL_COMP_1	C07	M1,K2
-	Compensation of the BASE_TOOL in the TRACYL frame 1	BYTE	NEW CONF
-			
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0x0
			0x7
			7/7
			M

**Description:** Using this bit-coded machine data, components of the basic tool can be compensated using the transformation frame so that for the transformation selection, no change is obtained in the WCS component.  
Bit0: \$MC\_TRACYL\_BASE\_TOOL\_1[0] is compensated via \$P\_TRAFRAME.  
Bit1: \$MC\_TRACYL\_BASE\_TOOL\_1[1] is compensated via \$P\_TRAFRAME.  
Bit2: \$MC\_TRACYL\_BASE\_TOOL\_1[2] is compensated via \$P\_TRAFRAME .  
This function is only available if the system frame \$P\_TRAFRAME has been configured using MD28082  
\$MC\_MM\_SYSTEM\_FRAME\_MASK bit6.

24808	TRACYL_DEFAULT_MODE_1	C07	M1
-	TRACYL mode selection	BYTE	NEW CONF
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
			1
			7/7
			M

**Description:** Default setting of TRACYL type 514:  
0: without groove side offset (i.e. TRACYL type 514 - equals 512)  
1: with groove side offset (i.e. TRACYL type 514 - equals 513)  
MD2.... \$MC\_TRAFO\_TYPE... = 514 can be used to decide, via the selection parameters, whether calculation is made with or without groove side offset. The parameter defines the variable to be selected if no selection is made in the call parameters.  
If MD24808 \$MC\_TRACYL\_DEFAULT\_MODE\_1 = 1, it is sufficient to program TRACYL(30) in the part program instead of TRACYL(30,1,1).

24810	TRACYL_ROT_SIGN_IS_PLUS_1		C07	M1		
-	Sign of rotary axis for 1st TRACYL transformation		BOOLEAN	NEW CONF		
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:** Indicates the sign with which the rotary axis is taken into account in the TRACYL transformation for the first agreed TRACYL transformation.  
Related to:  
MD24860 \$MC\_TRACYL\_ROT\_SIGN\_IS\_PLUS\_2

24820	TRACYL_BASE_TOOL_1		C07	M1		
mm	Vector of base tool for 1st TRACYL transformation		DOUBLE	NEW CONF		
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** Indicates a basic offset of the tools zero for the 1st TRACYL transformation. The offset is referenced to the geometry axes valid when TRACYL is active. The basic offset is included with and without selection of the tool length compensation. Programmed length corrections have an additive effect with respect to the basic tool.  
The index i takes the values 0, 1, 2 for the 1st to 3rd geometry axes.  
Related to:  
MD24870 \$MC\_TRACYL\_BASE\_TOOL\_2

24850	TRACYL_ROT_AX_OFFSET_2		C07	M1		
degrees	Offset of rotary axis for the 2nd TRACYL transformation		DOUBLE	NEW CONF		
-						
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** Indicates the offset of the rotary axis in degrees in relation to the neutral position for the 2nd agreed TRACYL transformation for each channel.  
MD irrelevant:  
If no TRACYL is active  
Related to:  
MD24800 \$MC\_TRACYL\_ROT\_AX\_OFFSET\_1

24855	TRACYL_ROT_AX_FRAME_2		C07	M1,K2		
-	Rotary axis offset TRACYL 2		BYTE	NEW CONF		
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	2	7/7	M

**Description:** 0: axial rotary axis offset is not considered.  
1: axial rotary axis offset is considered.  
2: axial rotary axis offset is considered until SZS.  
SZS frames include transformed axial rotary axis offsets.

24856	TRACYL_BASE_TOOL_COMP_2		C07	M1,K2		
-	Compensation of the BASE_TOOL in the TRACYL frame 2		BYTE	NEW CONF		
-						
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0x0	0x7	7/7	M

**Description:** Using this bit-coded machine data, components of the base tool can be compensated using the transformation frame so that for the transformation selection, no change is obtained in the WCS component.

Bit0: \$MC\_TRACYL\_BASE\_TOOL\_2[0] is compensated via \$P\_TRAFRAME.

Bit1: \$MC\_TRACYL\_BASE\_TOOL\_2[1] is compensated via \$P\_TRAFRAME.

Bit2: \$MC\_TRACYL\_BASE\_TOOL\_2[2] is compensated via \$P\_TRAFRAME.

This function is only available if the system frame \$P\_TRAFRAME was configured using MD28082

\$MC\_MM\_SYSTEM\_FRAME\_MASK bit6.

24858	TRACYL_DEFAULT_MODE_2		C07	M1		
-	TRACYL mode selection		BYTE	NEW CONF		
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	1	7/7	M

**Description:** Default setting of TRACYL type 514 for the 2nd TRACYL:

0: without groove side offset (i.e. TRACYL type 514 - equals 512)

1: with groove side offset (i.e. TRACYL type 514 - equals 513)

MD2... \$MC\_TRAFO\_TYPE... = 514 can be used to decide, via the selection parameters, whether calculation is made with or without groove side offset. The parameter defines the variable to be selected if no selection is made in the call parameters.

If MD24858 \$MC\_TRACYL\_DEFAULT\_MODE\_2 = 1, it is sufficient to program TRACYL(30,2) in the part program instead of TRACYL(30,2,1).

24860	TRACYL_ROT_SIGN_IS_PLUS_2		C07	-		
-	Sign of rotary axis for 2nd TRACYL transformation		BOOLEAN	NEW CONF		
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:** Indicates the sign with which the rotary axis is taken into account in the TRACYL transformation for the 2nd agreed TRACYL transformation for each channel.

Related to:

MD24810 \$MC\_TRACYL\_ROT\_SIGN\_IS\_PLUS\_1

24870	TRACYL_BASE_TOOL_2		C07	M1		
mm	Vector of base tool for 2nd TRACYL transformation		DOUBLE	NEW CONF		
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** Indicates a basic offset of the tools zero for the 2nd TRACYL transformation. The offset is referenced to the geometry axes valid when TRACYL is active.

The basic offset is included with and without selection of the tool length compensation. Programmed length corrections have an additive effect with respect to the basic tool.

The index *i* takes the values 0, 1, 2 for the 1st to 3rd geometry axes.

Related to:

MD24820 \$MC\_TRACYL\_BASE\_TOOL\_1

24900	TRANSMIT_ROT_AX_OFFSET_1	C07	M1
degrees	Offset of rotary axis for the 1st TRANSMIT transformation	DOUBLE	NEW CONF
-			
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	- - 7/7 M

**Description:** Indicates the offset of the rotary axis for the first agreed TRANSMIT transformation in degrees in relation to the neutral position while TRANSMIT is active.

Related to:

MD24950 \$MC\_TRANSMIT\_ROT\_AX\_OFFSET\_2

24905	TRANSMIT_ROT_AX_FRAME_1	C07	M1,K2
-	Rotary axis offset TRANSMIT 1	BYTE	NEW CONF
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0 2 7/7 M

**Description:**

- 0: axial rotary axis offset is not considered.
- 1: axial rotary axis offset is considered.
- 2: axial rotary axis offset is considered until SZS.

SZS frames include transformed rotations around the rotary axis.

24906	TRANSMIT_BASE_TOOL_COMP_1	C07	M1,K2
-	Compensation of the BASE_TOOL in the TRANSMIT frame 1	BYTE	NEW CONF
-			
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0x0 0x7 7/7 M

**Description:** Using this bit-coded machine data, components of the basic tool can be compensated using the transformation frame so that for the transformation selection, no change is obtained in the WCS component.

Bit0: \$MC\_TRANSMIT\_BASE\_TOOL\_1[0] is compensated via \$P\_TRAFRAME.

Bit1: \$MC\_TRANSMIT\_BASE\_TOOL\_1[1] is compensated via \$P\_TRAFRAME.

Bit2: \$MC\_TRANSMIT\_BASE\_TOOL\_1[2] is compensated via \$P\_TRAFRAME .

This function is only available if the system frame \$P\_TRAFRAME has been configured using MD28082

\$MC\_MM\_SYSTEM\_FRAME\_MASK bit6.

24910	TRANSMIT_ROT_SIGN_IS_PLUS_1			C07	M1	
-	Sign of rotary axis for 1st TRANSMIT transformation			BOOLEAN	NEW CONF	
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:** Indicates the sign with which the rotary axis is taken into account in the TRANSMIT transformation for the first agreed TRANSMIT transformation for each channel.

Related to:

MD24960 \$MC\_TRANSMIT\_ROT\_SIGN\_IS\_PLUS\_2

24911	TRANSMIT_POLE_SIDE_FIX_1			C07	M1	
-	Restriction of working range in front of / behind the pole, 1. TRANSMIT			BYTE	NEW CONF	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	2	7/7	M

**Description:** Restriction of the working area in front of/behind pole or no restriction, i.e. traversal through the pole.

The assigned values have the following meanings:

- 1: Working area of linear axis for positions  $\geq 0$ ,  
(if tool length compensation parallel to linear axis equals 0)
- 2: Working area of linear axis for positions  $\leq 0$ ,  
(if tool length compensation parallel to linear axis equals 0)
- 0: No restriction of working area. Traversal through pole.

24920	TRANSMIT_BASE_TOOL_1			C07	M1	
mm	Vector of base tool for 1st TRANSMIT transformation			DOUBLE	NEW CONF	
-						
-	3	0,0, 0,0, 0,0,0,0, 0,0, 0,0...	-	-	7/7	M

**Description:** Indicates a basic offset of the tools zero for the 1st TRANSMIT transformation. The offset is referenced to the geometry axes valid when TRANSMIT is active. The basic offset is included with and without selection of the tool length compensation. Programmed length corrections have an additive effect with respect to the basic tool.

The index i takes the values 0, 1, 2 for the 1st to 3rd geometry axes.

Related to:

MD24970 \$MC\_TRANSMIT\_BASE\_TOOL\_2

24950	TRANSMIT_ROT_AX_OFFSET_2			C07	M1	
degrees	Offset of rotary axis for the 2nd TRANSMIT transformation			DOUBLE	NEW CONF	
-						
-	-	0,0, 0,0, 0,0, 0,0, 0,0, 0,0, 0,0, 0,0...	-	-	7/7	M

**Description:** Indicates the offset of the rotary axis for the second agreed TRANSMIT transformation in degrees in relation to the neutral position while TRANSMIT is active.

Related to:

MD24900 \$MC\_TRANSMIT\_ROT\_AX\_OFFSET\_1



24955	TRANSMIT_ROT_AX_FRAME_2	C07	M1
-	Rotary axis offset TRANSMIT 2	BYTE	NEW CONF
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
			2
			7/7
			M

**Description:**

- 0: axial rotary axis offset is not considered.
- 1: axial rotary axis offset is considered.
- 2: axial rotary axis offset is considered until SZS.

SZS frames include transformed rotations around the rotary axis.

24956	TRANSMIT_BASE_TOOL_COMP_2	C07	M1,K2
-	Compensation of the BASE_TOOL in the TRANSMIT frame 2	BYTE	NEW CONF
-			
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0x0
			0x7
			7/7
			M

**Description:**

Using this bit-coded machine data, components of the basic tool can be compensated using the transformation frame so that for the transformation selection, no change is obtained in the WCS component

Bit0: \$MC\_TRANSMIT\_BASE\_TOOL\_2[0] is compensated via \$P\_TRAFRAME.  
 Bit1: \$MC\_TRANSMIT\_BASE\_TOOL\_2[1] is compensated via \$P\_TRAFRAME.  
 Bit2: \$MC\_TRANSMIT\_BASE\_TOOL\_2[2] is compensated via \$P\_TRAFRAME.

This function is only available if the system frame \$P\_TRAFRAME was configured using MD28082

\$MC\_MM\_SYSTEM\_FRAME\_MASK bit6.

24960	TRANSMIT_ROT_SIGN_IS_PLUS_2	C07	M1
-	Sign of rotary axis for 2nd TRANSMIT transformation	BOOLEAN	NEW CONF
-			
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-
			-
			7/7
			M

**Description:**

Indicates the sign with which the rotary axis is taken into account in the TRANSMIT transformation for the second agreed TRANSMIT transformation for each channel.

Related to:  
 MD24910 \$MC\_TRANSMIT\_ROT\_SIGN\_IS\_PLUS\_1

24961	TRANSMIT_POLE_SIDE_FIX_2	C07	M1
-	Restriction of working range before/behind the pole, 2. TRANSMIT	BYTE	NEW CONF
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
			2
			7/7
			M

**Description:**

Restriction of working area in front of/behind pole or no restriction, i.e. traversal through pole.

The assigned values have the following meanings:

- 1: Working area of linear axis for positions  $\geq 0$ ,  
(if tool length compensation parallel to linear axis equals 0)
- 2: Working area of linear axis for positions  $\leq 0$ ,  
(if tool length compensation parallel to linear axis equals 0)
- 0: No restriction of working area. Traversal through pole.

24970	TRANSMIT_BASE_TOOL_2			C07	M1	
mm	Vector of base tool for 2nd TRANSMIT transformation			DOUBLE	NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** Indicates a basic offset of the tools zero for the 2nd TRANSMIT transformation. The offset is referenced to the geometry axes valid when TRANSMIT is active. The basic offset is included with and without selection of the tool length compensation. Programmed length corrections have an additive effect with respect to the basic tool.

The index *i* takes the values 0, 1, 2 for the 1st to 3rd geometry axes.

Related to:

MD24920 \$MC\_TRANSMIT\_BASE\_TOOL\_1

24995	TRACON_CHAIN_1			C07	M1	
-	Transformation grouping			DWORD	NEW CONF	
-						
-	4	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** Transformation chain of the first concatenated transformation. In the table, the numbers of the transformations which are to be concatenated are given in the order in which the transformation has to be executed from BCS into MCS.

Example:

A machine can be operated optionally either as a 5-axis machine or as a transmit machine. A linear axis is not arranged at a right-angles to the other linear axes (inclined axis).

5 transformations must be set via the machine data, e.g.

TRAFO\_TYPE\_1 = 16 (5-axis transformation)

TRAFO\_TYPE\_2 = 256 (Transmit)

TRAFO\_TYPE\_3 = 1024 (Inclined axis)

TRAFO\_TYPE\_4 = 8192 (Concatenated transformation)

TRAFO\_TYPE\_5 = 8192 (Concatenated transformation)

If the 4th transformation concatenates the 5-axis transformation / inclined axis and the 5th transformation concatenates the transmit / inclined axis, then (1, 3, 0, 0) is entered in the first table TRACON\_CHAIN\_1, and (2, 3, 0, 0) in the table TRACON\_CHAIN\_2. The entry 0 means no transformation.

The order in which the transformations are assigned (TRAFO\_TYPE\_1 to TRAFO\_TYPE\_20) is arbitrary. The linked transformations do not have to be the last. However, they must always stand behind all the transformations which occur in a transformation chain. In the previous example, this means that, e.g. the third and fourth transformations must not be switched.

However, it would be possible to define a further, sixth transformation, if this does not go into a linked transformation.

Transformations cannot be linked with one another at will.

The following limitations apply in SW version 5:

The first transformation in the chain must be an orientation transformation (3- , 4- , 5-axis transformation, nutator) transmit or peripheral curve transformation. The second transformation must be an inclined axis transformation.

No more than two transformations may be linked.

24996	TRACON_CHAIN_2			C07	M1	
-	Transformation grouping			DWORD	NEW CONF	
-						
-	4	0, 0, 0, 0, 0, 0, 0, 0, 0, 0	0	20	7/7	M

**Description:**

Transformation chain of the first concatenated transformation.

In the table, the numbers of the transformations which are to be concatenated are given in the order in which the transformation has to be executed from BCS into MCS.

Example:

A machine can be operated optionally either as a 5-axis machine or as a transmit machine. A linear axis is not arranged at a right-angles to the other linear axes (inclined axis).

Transformation chain of the second concatenated transformation.

Example: 5 transformations must be set via the machine data

TRAFO\_TYPE\_1 = 16 (5-axis transformation)

TRAFO\_TYPE\_2 = 256 (Transmit)

TRAFO\_TYPE\_3 = 1024 (Inclined axis)

TRAFO\_TYPE\_4 = 8192 (Concatenated transformation)

TRAFO\_TYPE\_5 = 8192 (Concatenated transformation)

If the 4th transformation concatenates the 5-axis transformation / inclined axis and the 5th transformation concatenates the transmit / inclined axis, then (1, 3, 0, 0) is entered in the first table TRACON\_CHAIN\_1, and (2, 3, 0, 0) in the table TRACON\_CHAIN\_2. The entry 0 means no transformation.

The order in which the transformations are assigned (TRAFO\_TYPE\_1 to TRAFO\_TYPE\_20) is arbitrary. The concatenated transformations do not have to be the last. However, they must always follow all the transformations which occur in a transformation chain. In the previous example, this means that, e.g. the third and fourth transformations must not be switched.

However, it would be possible to define a further, sixth transformation, if this does not go into a concatenated transformation.

Transformations cannot be concatenated with one another at will.

The following limitations apply in SW version 5:

The first transformation in the chain must be an orientation transformation (3- , 4- , 5-axis transformation, nutator) transmit or peripheral curve transformation.

The second transformation must be an inclined axis transformation.

No more than two transformations may be concatenated.

24997	TRACON_CHAIN_3			C07	M1	
-	Transformation grouping			DWORD	NEW CONF	
-						
-	4	0, 0, 0, 0, 0, 0, 0, 0, 0, 0	0	20	7/7	M

**Description:**

Transformation chain of the third concatenated transformation.

See TRACON\_CHAIN\_1 for documentation.

24998	TRACON_CHAIN_4		C07	M1
-	Transformation grouping		DWORD	NEW CONF
-				
-	4	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20
				7/7
				M

**Description:** Transformation chain of the fourth concatenated transformation.  
See TRACON\_CHAIN\_1 for documentation.

25100	TRAFO_TYPE_11		C07	F2
-	Definition of the 11th transformation in the channel		DWORD	NEW CONF
-				
-	-	0, 0, 0, 0, 0, 0, 0, 0, 0...	-	-
				7/7
				M

**Description:** This MD defines for each channel, which transformation is available as 11th transformation in the channel.  
Other than that it has the same meaning as TRAFO\_TYPE\_1.

25102	TRAFO_AXES_IN_11		C07	F2
-	Axis assignment for transformation 11		BYTE	NEW CONF
-				
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20
				7/7
				M

**Description:** Axis assignment at the input of the 11th transformation.  
See TRAFO\_AXES\_IN\_1 for explanation.

25104	TRAFO_GEOAX_ASSIGN_TAB_11		C07	F2
-	Assignment of geometry axes to channel axes for transformation 11		BYTE	NEW CONF
-				
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20
				7/7
				M

**Description:** This MD states the channel axes on which the axes of the cartesian coordinate system are mapped for active transformation 11.  
Otherwise the meaning corresponds to TRAFO\_GEOAX\_ASSIGN\_TAB\_1.

25106	TRAFO_INCLUDES_TOOL_11		C07	M1,F2
-	Tool handling with 11th active transformation		BOOLEAN	NEW CONF
-				
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-
				7/7
				M

**Description:** This MD defines for each channel, whether the tool is treated in the 11th transformation or externally.  
Other than that it has the same meaning as TRAFO\_INCLUDES\_TOOL\_1.

25110	TRAFO_TYPE_12		C07	F2
-	Definition of the 12th transformation in the channel		DWORD	NEW CONF
-				
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-
				7/7
				M

**Description:** This MD defines for each channel, which transformation is available as 12th transformation in the channel.

Other than that it has the same meaning as TRAFO\_TYPE\_1.

25112	TRAFO_AXES_IN_12			C07	F2	
-	Axis assignment for transformation 12			BYTE	NEW CONF	
-						
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** Axis assignment at the input of the 12th transformation.  
See TRAFO\_AXES\_IN\_1 for explanation.

25114	TRAFO_GEOAX_ASSIGN_TAB_12			C07	F2	
-	Assignment of geometry axes to channel axes for transformation 12			BYTE	NEW CONF	
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** This MD states the channel axes on which the axes of the cartesian coordinate system are mapped for active transformation 12.  
Otherwise the meaning corresponds to TRAFO\_GEOAX\_ASSIGN\_TAB\_1.

25116	TRAFO_INCLUDES_TOOL_12			C07	M1,F2	
-	Tool handling with 12th active transformation			BOOLEAN	NEW CONF	
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:** This MD defines for each channel, whether the tool is treated in the 12th transformation or externally.  
Other than that it has the same meaning as TRAFO\_INCLUDES\_TOOL\_1.

25120	TRAFO_TYPE_13			C07	F2	
-	Definition of the 13th transformation in the channel			DWORD	NEW CONF	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7	M

**Description:** This MD defines for each channel, which transformation is available as 13th transformation in the channel.  
Other than that it has the same meaning as TRAFO\_TYPE\_1.

25122	TRAFO_AXES_IN_13			C07	F2	
-	Axis assignment for transformation 13			BYTE	NEW CONF	
-						
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** Axis assignment at the input of the 13th transformation.  
See TRAFO\_AXES\_IN\_1 for explanation.

25124	TRAFO_GEOAX_ASSIGN_TAB_13			C07	F2	
-	Assignment of geometry axes to channel axes for transformation 13			BYTE	NEW CONF	
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** This MD states the channel axes on which the axes of the cartesian coordinate system are mapped for active transformation 13.  
Otherwise the meaning corresponds to TRAFO\_GEOAX\_ASSIGN\_TAB\_1.

25126	TRAFO_INCLUDES_TOOL_13			C07	M1,F2	
-	Tool handling with 13th active transformation			BOOLEAN	NEW CONF	
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:** This MD defines for each channel, whether the tool is treated in the 13th transformation or externally.  
Other than that it has the same meaning as TRAFO\_INCLUDES\_TOOL\_1.

25130	TRAFO_TYPE_14			C07	F2	
-	Definition of the 14th transformation in the channel			DWORD	NEW CONF	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7	M

**Description:** This MD defines for each channel, which transformation is available as 14th transformation in the channel.  
Other than that it has the same meaning as TRAFO\_TYPE\_1.

25132	TRAFO_AXES_IN_14			C07	F2	
-	Axis assignment for transformation 14			BYTE	NEW CONF	
-						
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** Axis assignment at the input of the 14th transformation.  
See TRAFO\_AXES\_IN\_1 for explanation.

25134	TRAFO_GEOAX_ASSIGN_TAB_14			C07	F2	
-	Assignment of geometry axes to channel axes for transformation 14			BYTE	NEW CONF	
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** This MD states the channel axes on which the axes of the cartesian coordinate system are mapped for active transformation 14.  
Otherwise the meaning corresponds to TRAFO\_GEOAX\_ASSIGN\_TAB\_1.

25136	TRAFO_INCLUDES_TOOL_14		C07	M1,F2	
-	Tool handling with 14th active transformation		BOOLEAN	NEW CONF	
-					
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7 M

**Description:** This MD defines for each channel, whether the tool is treated in the 14th transformation or externally.  
Other than that it has the same meaning as TRAFO\_INCLUDES\_TOOL\_1.

25140	TRAFO_TYPE_15		C07	F2	
-	Definition of the 15th transformation in the channel		DWORD	NEW CONF	
-					
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7 M

**Description:** This MD defines for each channel, which transformation is available as 15th transformation in the channel.  
Other than that it has the same meaning as TRAFO\_TYPE\_1.

25142	TRAFO_AXES_IN_15		C07	F2	
-	Axis assignment for transformation 15		BYTE	NEW CONF	
-					
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7 M

**Description:** Axis assignment at the input of the 15th transformation.  
See TRAFO\_AXES\_IN\_1 for explanation.

25144	TRAFO_GEOAX_ASSIGN_TAB_15		C07	F2	
-	Assignment of geometry axes to channel axes for transformation 15		BYTE	NEW CONF	
-					
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7 M

**Description:** This MD states the channel axes on which the axes of the cartesian coordinate system are mapped for active transformation 15.  
Otherwise the meaning corresponds to TRAFO\_GEOAX\_ASSIGN\_TAB\_1.

25146	TRAFO_INCLUDES_TOOL_15		C07	M1,F2	
-	Tool handling with 15th active transformation		BOOLEAN	NEW CONF	
-					
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7 M

**Description:** This MD defines for each channel, whether the tool is treated in the 15th transformation or externally.  
Other than that it has the same meaning as TRAFO\_INCLUDES\_TOOL\_1.

25150	TRAFO_TYPE_16	C07	F2
-	Definition of the 16th transformation in the channel	DWORD	NEW CONF
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	- - 7/7 M

**Description:** This MD defines for each channel, which transformation is available as 16th transformation in the channel.

Other than that it has the same meaning as TRAFO\_TYPE\_1.

25152	TRAFO_AXES_IN_16	C07	F2
-	Axis assignment for transformation 16	BYTE	NEW CONF
-			
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0 20 7/7 M

**Description:** Axis assignment at the input of the 16th transformation.

See TRAFO\_AXES\_IN\_1 for explanation.

25154	TRAFO_GEOAX_ASSIGN_TAB_16	C07	F2
-	Assignment of geometry axes to channel axes for transformation 16	BYTE	NEW CONF
-			
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0 20 7/7 M

**Description:** This MD states the channel axes on which the axes of the cartesian coordinate system are mapped for active transformation 16.

Otherwise the meaning corresponds to TRAFO\_GEOAX\_ASSIGN\_TAB\_1.

25156	TRAFO_INCLUDES_TOOL_16	C07	M1,F2
-	Tool handling with 16th active transformation	BOOLEAN	NEW CONF
-			
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	- - 7/7 M

**Description:** This MD defines for each channel, whether the tool is treated in the 16th transformation or externally.

Other than that it has the same meaning as TRAFO\_INCLUDES\_TOOL\_1.

25160	TRAFO_TYPE_17	C07	F2
-	Definition of the 17th transformation in the channel	DWORD	NEW CONF
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	- - 7/7 M

**Description:** This MD defines for each channel, which transformation is available as 17th transformation in the channel.

Other than that it has the same meaning as TRAFO\_TYPE\_1.



25162	TRAFO_AXES_IN_17			C07	F2	
-	Axis assignment for transformation 17			BYTE	NEW CONF	
-						
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** Axis assignment at the input of the 17th transformation.  
See TRAFO\_AXES\_IN\_1 for explanation.

25164	TRAFO_GEOAX_ASSIGN_TAB_17			C07	F2	
-	Assignment of geometry axes to channel axes for transformation 17			BYTE	NEW CONF	
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** This MD states the channel axes on which the axes of the cartesian coordinate system are mapped for active transformation 17.  
Otherwise the meaning corresponds to TRAFO\_GEOAX\_ASSIGN\_TAB\_1.

25166	TRAFO_INCLUDES_TOOL_17			C07	M1,F2	
-	Tool handling with 17th active transformation			BOOLEAN	NEW CONF	
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:** This MD defines for each channel, whether the tool is treated in the 17th transformation or externally.  
Other than that it has the same meaning as TRAFO\_INCLUDES\_TOOL\_1.

25170	TRAFO_TYPE_18			C07	F2	
-	Definition of the 18th transformation in the channel			DWORD	NEW CONF	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7	M

**Description:** This MD defines for each channel, which transformation is available as 18th transformation in the channel.  
Other than that it has the same meaning as TRAFO\_TYPE\_1.

25172	TRAFO_AXES_IN_18			C07	F2	
-	Axis assignment for transformation 18			BYTE	NEW CONF	
-						
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** Axis assignment at the input of the 18th transformation.  
See TRAFO\_AXES\_IN\_1 for explanation.

25174	TRAFO_GEOAX_ASSIGN_TAB_18			C07	F2	
-	Assignment of geometry axes to channel axes for transformation 18			BYTE	NEW CONF	
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** This MD states the channel axes on which the axes of the cartesian coordinate system are mapped for active transformation 18.  
Otherwise the meaning corresponds to TRAFO\_GEOAX\_ASSIGN\_TAB\_1.

25176	TRAFO_INCLUDES_TOOL_18			C07	M1,F2	
-	Tool handling with 18th active transformation			BOOLEAN	NEW CONF	
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:** This MD defines for each channel, whether the tool is treated in the 18th transformation or externally.  
Other than that it has the same meaning as TRAFO\_INCLUDES\_TOOL\_1.

25180	TRAFO_TYPE_19			C07	F2	
-	Definition of the 19th transformation in the channel			DWORD	NEW CONF	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7	M

**Description:** This MD defines for each channel, which transformation is available as 19th transformation in the channel.  
Other than that it has the same meaning as TRAFO\_TYPE\_1.

25182	TRAFO_AXES_IN_19			C07	F2	
-	Axis assignment for transformation 19			BYTE	NEW CONF	
-						
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** Axis assignment at the input of the 19th transformation.  
See TRAFO\_AXES\_IN\_1 for explanation.

25184	TRAFO_GEOAX_ASSIGN_TAB_19			C07	F2	
-	Assignment of geometry axes to channel axes for transformation 19			BYTE	NEW CONF	
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** This MD states the channel axes on which the axes of the cartesian coordinate system are mapped for active transformation 19.  
Otherwise the meaning corresponds to TRAFO\_GEOAX\_ASSIGN\_TAB\_1.

25186	TRAFO_INCLUDES_TOOL_19		C07	M1,F2	
-	Tool handling with 19th active transformation		BOOLEAN	NEW CONF	
-					
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7 M

**Description:** This MD defines for each channel, whether the tool is treated in the 19th transformation or externally.  
Other than that it has the same meaning as TRAFO\_INCLUDES\_TOOL\_1.

25190	TRAFO_TYPE_20		C07	F2	
-	Definition of the 20th transformation in the channel		DWORD	NEW CONF	
-					
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7 M

**Description:** This MD defines for each channel, which transformation is available as 20th transformation in the channel.  
Other than that it has the same meaning as TRAFO\_TYPE\_1.

25192	TRAFO_AXES_IN_20		C07	F2	
-	Axis assignment for transformation 20		BYTE	NEW CONF	
-					
-	20	1, 2, 3, 4, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7 M

**Description:** Axis assignment at the input of the 20th transformation.  
See TRAFO\_AXES\_IN\_1 for explanation.

25194	TRAFO_GEOAX_ASSIGN_TAB_20		C07	F2	
-	Assignment of geometry axes to channel axes for transformation 20		BYTE	NEW CONF	
-					
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7 M

**Description:** This MD states the channel axes on which the axes of the cartesian coordinate system are mapped for active transformation 20.  
Otherwise the meaning corresponds to TRAFO\_GEOAX\_ASSIGN\_TAB\_1.

25196	TRAFO_INCLUDES_TOOL_20		C07	M1,F2	
-	Tool handling with 20th active transformation		BOOLEAN	NEW CONF	
-					
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7 M

**Description:** This MD defines for each channel, whether the tool is treated in the 20th transformation or externally.  
Other than that it has the same meaning as TRAFO\_INCLUDES\_TOOL\_1.

25200	TRAF05_PART_OFFSET_3			C07	F2	
mm	Offset vector of 5-axis transformation 3			DOUBLE	NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** This machine data designates an offset of the workpiece holder for the 3rd 5-axis transformation of a channel and has a special meaning for each of the various machine types:

Other than that it has the same meaning as TRAF05\_PART\_OFFSET\_1.

25210	TRAF05_ROT_AX_OFFSET_3			C07	F2	
degrees	Position offset of rotary axes 1/2/3 for 5-axis transformation 3			DOUBLE	NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** This machine data designates the angular offset of the first or second rotary axis in degrees for the 3rd 5-axis transformation of a channel.

Other than that it has the same meaning as TRAF05\_ROT\_AX\_OFFSET\_1.

25220	TRAF05_ROT_SIGN_IS_PLUS_3			C07	F2	
-	Sign of rotary axis 1/2/3 for 5-axis transformation 3			BOOLEAN	NEW CONF	
-						
-	3	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:** This machine data designates the sign with which the two rotary axes enter the 3rd 5-axis transformation of a channel.

Other than that it has the same meaning as TRAF05\_ROT\_SIGN\_IS\_PLUS\_1.

25230	TRAF05_NON_POLE_LIMIT_3			C07	F2	
degrees	Definition of pole range for 5-axis transformation 3			DOUBLE	NEW CONF	
-						
-	-	2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0...	-	-	7/7	M

**Description:** This machine data designates a limit angle for the fifth axis of the 3rd 5-axis transformation.

Other than that it has the same meaning as TRAF05\_NON\_POLE\_LIMIT\_1.

25240	TRAF05_POLE_LIMIT_3			C07	F2	
degrees	End angle tolerance with interpolation through pole for 5-axis transf.			DOUBLE	NEW CONF	
-						
-	-	2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0...	-	-	7/7	M

**Description:** This machine data designates an end angle tolerance for the fifth axis of the 3rd 5-axis transformation with the following properties:

Other than that it has the same meaning as TRAF05\_POLE\_LIMIT\_1.

25242	TRAF05_POLE_TOL_3	C07	-
degrees	End angle tolerance for tool orientation	DOUBLE	NEW CONF
-			
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	- - 7/7 M

**Description:** End angle tolerance for interpolation through the pole for 5/6-axis transformation 3.  
Other than that it has the same meaning as TRAF05\_POLE\_TOL\_1.

25250	TRAF05_BASE_TOOL_3	C07	F2
mm	Vector of base tool on activation of 5-axis transformation 3	DOUBLE	NEW CONF
-			
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	- - 7/7 M

**Description:** This MD indicates the vector of the base tool which takes effect when the third transformation is activated without a length compensation being selected. Programmed length compensations have an additive effect with respect to the base tool.  
MD irrelevant:  
if the "5-axis transformation" option is not installed.

25258	TRAF05_JOINT_OFFSET_PART_3	C07	F2
mm	Vector of kinematic table offset	DOUBLE	NEW CONF
-			
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	- - 7/7 M

**Description:** This machine data is only evaluated in generic 5-axis transformations with rotatable workpiece and rotatable tool (TRAF0\_TYPE = 56, mixed kinematics).  
Other than that it has the same meaning as TRAF05\_JOINT\_OFFSET\_PART\_1.

25260	TRAF05_JOINT_OFFSET_3	C07	F2
mm	Vector of the kinem.offset of the 3rd 5-axis transf. in channel	DOUBLE	NEW CONF
-			
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	- - 7/7 M

**Description:** This machine data designates the vector from the first to the second rotary joint for the 3rd transformation of a channel.  
Other than that it has the same meaning as TRAF05\_JOINT\_OFFSET\_1.

25261	TRAF06_JOINT_OFFSET_2_3_3	C07	-
mm	Vector of kinematic offset	DOUBLE	NEW CONF
-			
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	- - 7/7 M

**Description:** In the case of 6-axis transformations, defines the offset between the 2nd and third rotary axes for the 3rd transformation of each channel.

25262	TRAF05_TOOL_ROT_AX_OFFSET_3			C07	F2
mm	Offset of swivel point of the rotary axis on the 3rd 5-axis transformation			DOUBLE	NEW CONF
-					
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7 M

**Description:** In the case of 5-axis transformation with swiveling linear axis, the value indicates the offset of the rotary axis which swivels the linear axis with reference to machine zero for the 3rd transformation.

Other than that it has the same meaning as >TRAF05\_TOOL\_ROT\_AX\_OFFSET\_1.

25264	TRAF05_NUTATOR_AX_ANGLE_3			C07	F2
degrees	Nutating head angle in 5-axis transformation			DOUBLE	NEW CONF
-					
-	-	45.0, 45.0, 45.0, 45.0, 45.0, 45.0, 45.0...	-89.	89.	7/7 M

**Description:** Angle between the second rotary axis and the axis corresponding to it in the rectangular coordinate system

Other than that it has the same meaning as TRAF05\_NUTATOR\_AX\_ANGLE\_1.

25266	TRAF05_NUTATOR_VIRT_ORIAX_3			C07	-
-	Virtual orientation axes			BOOLEAN	NEW CONF
-					
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/7 M

**Description:** it has the same meaning as TRAF05\_NUTATOR\_VIRT\_ORIAX\_1.

25270	TRAF05_AXIS1_3			C07	F2
-	Direction of 1st rotary axis			DOUBLE	NEW CONF
-					
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7 M

**Description:** The MD designates the vector that describes the direction of the first rotary axis with the general 5-axis transformation (TRAF0\_TYPE\_\* = 24).

Other than that it has the same meaning as TRAF05\_AXIS1\_1.

25272	TRAF05_AXIS2_3			C07	F2
-	Direction of 2nd rotary axis			DOUBLE	NEW CONF
-					
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7 M

**Description:** The MD designates the vector that describes the direction of the second rotary axis with the general 5-axis transformation (TRAF0\_TYPE\_\* = 24, 40, 56).

Other than that it has the same meaning as TRAF05\_AXIS2\_1.

25273	TRAF05_AXIS3_3		C07	-		
-	Direction of the 3rd rotary axis		DOUBLE	NEW CONF		
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** The MD designates the vector that describes the direction of the third rotary axis with the general 6-axis transformation (TRAF0\_TYPE\_\* = 24, 40, 56, 57). Other than that it has the same meaning as TRAF05\_AXIS3\_1.

25274	TRAF05_BASE_ORIENT_3		C07	-		
-	Vector of the tool base orientation for 5-axis transformation		DOUBLE	NEW CONF		
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** Indicates the vector of the tool orientation in the general 5-axis transformation (TRAF0\_TYPE\_\* = 24, 40, 56) if this is not defined on the transformation call or not read from a programmed tool. Other than that it has the same meaning as TRAF05\_BASE\_ORIENT\_1.

25276	TRAF06_BASE_ORIENT_NORMAL_3		C07	-		
-	Normal tool vector in 6-axis transformation		DOUBLE	NEW CONF		
-						
-	3	0.0, 1.0, 0.0, 0.0, 1.0, 0.0...	-	-	7/7	M

**Description:** Indicates the vector that stands vertically on the tool orientation (TRAF05\_BASE\_ORIENTATION\_1) in general 6-axis transformation (TRAF0\_TYPE\_\* = 24, 40, 56, 57). Other than that it has the same meaning as TRAF06\_BASE\_ORIENT\_NORMAL\_1.

25280	TRAF05_TOOL_VECTOR_3		C07	F2		
-	Direction of orientation vector for the first 5-axis transf.		BYTE	NEW CONF		
-						
-	-	2, 2, 2, 2, 2, 2, 2...	0	2	7/2	M

**Description:** Indicates the direction of the orientation vector for the first 5-axis transformation for each channel. Other than that it has the same meaning as TRAF05\_TOOL\_VECTOR\_1.1.

25282	TRAF05_TCARR_NO_3		C07	-		
-	TCARR number for the 3rd 5-axis transformation		DWORD	NEW CONF		
-						
-	-	0, 0, 0, 0, 0, 0, 0...	-	-	7/7	M

**Description:** It has the same meaning as TRAF05\_TCARR\_NO\_1.

25285	TRAF05_ORIAX_ASSIGN_TAB_3		C07	F2		
-	Orientation axis / channel axis assignment transformation 3		BYTE	NEW CONF		
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/2	M

**Description:** Assignment table of the orientation axes for 5-axis transformation 3. Other than that it has the same meaning as TRAF05\_ORIAX\_ASSIGN\_TAB\_1.

25290	TRAFO5_ROT_OFFSET_FROM_FR_3		C01, C07	-		
-	Offset of transformation rotary axes from WO.		BOOLEAN	NEW CONF		
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/2	M

**Description:** It has the same meaning as TRAFO5\_ROT\_OFFSET\_FROM\_FR\_1.

25294	TRAFO7_EXT_ROT_AX_OFFSET_3		C07	F2		
degrees	Position offset of the external rotary axes for 7-axis transformation 3		DOUBLE	NEW CONF		
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** This machine data designates the angular offset of the external rotary axis in degrees for the third 7-axis transformation of a channel.

MD irrelevant:

if the "5-Axis Transformation" option is not installed.

25295	TRAFO7_EXT_AXIS1_3		C07	F2		
-	Direction of the 1st external rotary axis		DOUBLE	NEW CONF		
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** The MD indicates the vector that describes the direction of the first external rotary axis in the third general 5/6-axis transformation (TRAFO\_TYPE\_\* = 24).

The vector can have any magnitude.

Example:

Both with (0, 1, 0) and with (0, 7.21, 0), the same axis is described (in the direction of the 2nd geometry axis, i.e. usually Y).

Valid for the first transformation of a channel.

25300	TRAFO5_PART_OFFSET_4		C07	F2		
mm	Offset vector of 5-axis transformation 4		DOUBLE	NEW CONF		
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** This machine data designates an offset of the workpiece holder for the 4th 5-axis transformation of a channel and has a special meaning for each of the various machine types:

Other than that it has the same meaning as TRAFO5\_PART\_OFFSET\_1.

25310	TRAFO5_ROT_AX_OFFSET_4		C07	F2		
degrees	Position offset of rotary axes 1/2/3 for 5-axis transformation 4		DOUBLE	NEW CONF		
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** This machine data designates the angular offset of the first or second rotary axis in degrees for the 4th 5-axis transformation of a channel.

Other than that it has the same meaning as TRAFO5\_ROT\_AX\_OFFSET\_1.



25320	TRAF05_ROT_SIGN_IS_PLUS_4		C07	F2	
-	Sign of rotary axis 1/2/3 for 5-axis transformation 4		BOOLEAN	NEW CONF	
-					
-	3	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7 M

**Description:** This machine data designates the sign with which the two rotary axes enter the 4th 5-axis transformation of a channel.  
Other than that it has the same meaning as TRAF05\_ROT\_SIGN\_IS\_PLUS\_1.

25330	TRAF05_NON_POLE_LIMIT_4		C07	F2	
degrees	Definition of pole range for 5-axis transformation 4		DOUBLE	NEW CONF	
-					
-	-	2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0...	-	-	7/7 M

**Description:** This machine data designates a limit angle for the fifth axis of the 4th 5-axis transformation.  
Other than that it has the same meaning as TRAF05\_NON\_POLE\_LIMIT\_1.

25340	TRAF05_POLE_LIMIT_4		C07	F2	
degrees	End angle tolerance with interpolation through pole for 5-axis transf.		DOUBLE	NEW CONF	
-					
-	-	2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0...	-	-	7/7 M

**Description:** This machine data designates an end angle tolerance for the fifth axis of the 4th 5-axis transformation with the following properties:  
Other than that it has the same meaning as TRAF05\_POLE\_LIMIT\_1.

25342	TRAF05_POLE_TOL_4		C07	-	
degrees	End angle tolerance for tool orientation		DOUBLE	NEW CONF	
-					
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7 M

**Description:** End angle tolerance for interpolation through the pole for 5/6-axis transformation 4.  
Other than that it has the same meaning as TRAF05\_POLE\_TOL\_1.

25350	TRAF05_BASE_TOOL_4		C07	F2	
mm	Vector of base tool on activation of 5-axis transformation 4		DOUBLE	NEW CONF	
-					
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7 M

**Description:** This MD indicates the vector of the base tool which takes effect when the first transformation is activated without a length compensation being selected. Programmed length compensations have an additive effect with respect to the base tool.  
MD irrelevant:  
if the "5-axis transformation" option is not installed.

25358	TRAF05_JOINT_OFFSET_PART_4			C07	F2	
mm	Vector of kinematic table offset			DOUBLE	NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** This machine data is only evaluated in generic 5-axis transformations with rotatable workpiece and rotatable tool (TRAF0\_TYPE = 56, mixed kinematics). Other than that it has the same meaning as TRAF05\_JOINT\_OFFSET\_PART\_1.

25360	TRAF05_JOINT_OFFSET_4			C07	F2	
mm	Vector of the kinem.offset of the 4th 5-axis transf. in channel			DOUBLE	NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** This machine data designates the vector from the first to the second rotary joint for the 4th transformation of a channel. Other than that it has the same meaning as TRAF05\_JOINT\_OFFSET\_1.

25361	TRAF06_JOINT_OFFSET_2_3_4			C07	-	
mm	Vector of kinematic offset			DOUBLE	NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** In the case of 6-axis transformations, defines the offset between the 2nd and third rotary axes for the 4th transformation of each channel.

25362	TRAF05_TOOL_ROT_AX_OFFSET_4			C07	F2	
mm	Offset of swivel point of the rotary axis on the 4th 5-axis transformation			DOUBLE	NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** In the case of a 5-axis transformation with a swiveling linear axis, the value indicates the offset of the rotary axis which swivels the linear axis with reference to machine zero for the 4th transformation. Other than that it has the same meaning as >TRAF05\_TOOL\_ROT\_AX\_OFFSET\_1.

25364	TRAF05_NUTATOR_AX_ANGLE_4			C07	F2	
degrees	Nutating head angle in 5-axis transformation			DOUBLE	NEW CONF	
-						
-	-	45.0, 45.0, 45.0, 45.0, 45.0, 45.0, 45.0...	-89.	89.	7/7	M

**Description:** Angle between the second rotary axis and the axis corresponding to it in the rectangular coordinate system. Other than that it has the same meaning as TRAF05\_NUTATOR\_AX\_ANGLE\_1.

25366	TRAF05_NUTATOR_VIRT_ORIAX_4		C07	-		
-	Virtual orientation axes		BOOLEAN		NEW CONF	
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/7	M

**Description:** it has the same meaning as TRAF05\_NUTATOR\_VIRT\_ORIAX\_1.

25370	TRAF05_AXIS1_4		C07	F2		
-	Direction of 1st rotary axis		DOUBLE		NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** The MD designates the vector that describes the direction of the first rotary axis with the general 5-axis transformation (TRAF0\_TYPE\_\* = 24).  
Other than that it has the same meaning as TRAF05\_AXIS1\_1.

25372	TRAF05_AXIS2_4		C07	F2		
-	Direction of 2nd rotary axis		DOUBLE		NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** The MD designates the vector that describes the direction of the second rotary axis with the general 5-axis transformation (TRAF0\_TYPE\_\* = 24, 40, 56).  
Other than that it has the same meaning as TRAF05\_AXIS2\_1.

25373	TRAF05_AXIS3_4		C07	-		
-	Direction of the 3rd rotary axis		DOUBLE		NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** The MD designates the vector that describes the direction of the third rotary axis with the general 6-axis transformation (TRAF0\_TYPE\_\* = 24, 40, 56, 57).  
Other than that it has the same meaning as TRAF05\_AXIS3\_1.

25374	TRAF05_BASE_ORIENT_4		C07	-		
-	Vector of the tool base orientation for 5-axis transformation		DOUBLE		NEW CONF	
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** Indicates the vector of the tool orientation in the general 5-axis transformation (TRAF0\_TYPE\_\* = 24, 40, 56) if this is not defined on the transformation call or not read from a programmed tool.  
Other than that it has the same meaning as TRAF05\_BASE\_ORIENT\_1.

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25376	TRAF06_BASE_ORIENT_NORMAL_4			C07	-	
-	Normal tool vector in 6-axis transformation			DOUBLE	NEW CONF	
-						
-	3	0,0, 1,0, 0,0,0,0, 1,0, 0,0...	-	-	7/7	M

**Description:** Indicates the vector that stands vertically on the tool orientation (TRAF05\_BASE\_ORIENTATION\_1) in general 6-axis transformation (TRAF0\_TYPE\_\* = 24, 40, 56, 57).  
Other than that it has the same meaning as TRAF06\_BASE\_ORIENT\_NORMAL\_1.

25380	TRAF05_TOOL_VECTOR_4			C07	F2	
-	Direction of orientation vector for the first 5-axis transf.			BYTE	NEW CONF	
-						
-	-	2, 2, 2, 2, 2, 2, 2, 2...	0	2	7/2	M

**Description:** Indicates the direction of the orientation vector for the first 5-axis transformation for each channel.  
Other than that it has the same meaning as TRAF05\_TOOL\_VECTOR\_1.1.

25382	TRAF05_TCARR_NO_4			C07	-	
-	TCARR number for the 4th 5-axis transformation			DWORD	NEW CONF	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7	M

**Description:** It has the same meaning as TRAF05\_TCARR\_NO\_1.

25385	TRAF05_ORIAX_ASSIGN_TAB_4			C07	F2	
-	Orientation axis / channel axis assignment transformation 4			BYTE	NEW CONF	
-						
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/2	M

**Description:** Assignment table of the orientation axes for 5-axis transformation 4  
Other than that it has the same meaning as TRAF05\_ORIAX\_ASSIGN\_TAB\_1.

25390	TRAF05_ROT_OFFSET_FROM_FR_4			C01, C07	-	
-	Offset of transformation rotary axes from WO.			BOOLEAN	NEW CONF	
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/2	M

**Description:** It has the same meaning as TRAF05\_ROT\_OFFSET\_FROM\_FR\_1.

25394	TRAF07_EXT_ROT_AX_OFFSET_4			C07	F2	
degrees	Position offset of the external rotary axes for 7-axis transformation 4			DOUBLE	NEW CONF	
-						
-	3	0,0, 0,0, 0,0,0,0, 0,0, 0,0...	-	-	7/7	M

**Description:** This machine data designates the angular offset of the external rotary axis in degrees for the fourth 7-axis transformation of a channel.  
MD irrelevant:  
if the "5-Axis Transformation" option is not installed.

25395	TRAFO7_EXT_AXIS1_4		C07	F2		
-	Direction of the 1st external rotary axis		DOUBLE	NEW CONF		
-						
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** The MD indicates the vector that describes the direction of the first external rotary axis in the fourth general 5/6-axis transformation (TRAFO\_TYPE\_\* = 24).

The vector can have any magnitude.

Example:

Both with (0, 1, 0) and with (0, 7.21, 0), the same axis is described (in the direction of the 2nd geometry axis, i.e. usually Y).

Valid for the first transformation of a channel.

25495	TRACON_CHAIN_5		C07	M1		
-	Transformation grouping		DWORD	NEW CONF		
-						
-	4	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** Transformation chain of the 5th concatenated transformation.  
See TRACON\_CHAIN\_1 for documentation.

25496	TRACON_CHAIN_6		C07	M1		
-	Transformation grouping		DWORD	NEW CONF		
-						
-	4	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** Transformation chain of the 6th concatenated transformation.  
See TRACON\_CHAIN\_1 for documentation.

25497	TRACON_CHAIN_7		C07	M1		
-	Transformation grouping		DWORD	NEW CONF		
-						
-	4	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** Transformation chain of the 7th concatenated transformation.  
See TRACON\_CHAIN\_1 for documentation.

25498	TRACON_CHAIN_8		C07	M1		
-	Transformation grouping		DWORD	NEW CONF		
-						
-	4	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/7	M

**Description:** Transformation chain of the 8th concatenated transformation.  
See TRACON\_CHAIN\_1 for documentation.

26000	PUNCHNIB_ASSIGN_FASTIN	C01, C09	N4
-	Hardware assignment for input byte for stroke control	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-
-	-	-	7/2 M

**Description:** Assignment of the high-speed input byte for "punching and nibbling"

Bit 0-7: Number of the input byte used

Bit 8-15: Free

Bit 16-23: Inversion mask for writing the hardware byte

Bit 24-31: Free

This data defines which input byte is to be used for the signal "travel active".

= 1:

On-board inputs (4 high-speed NCK outputs) are used.  
2, 3, 4, 5

The external digital NCK inputs are used

128-129: Comparator byte (results from high-speed analog inputs or VDI specification)

Related to:  
MD26006 \$MC\_NIBBLE\_PUNCH\_INMASK[n]

References:  
/FB/, A4, Digital and Analog NCK I/Os

The signal is high active as default from software 3.2. That is there is wire break monitoring. If the signal is low active then, e.g., the MD must be set to the value MD ="H 0001 0001" for the outboard inputs.

26002	PUNCHNIB_ASSIGN_FASTOUT	C01, C09	N4
-	Hardware assignment for output byte for stroke control	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-
-	-	-	7/2 M

**Description:** This data defines which output byte is to be used for the stroke control.

Number of the high-speed output byte for "punching and nibbling"

Bit 0-7: Number of the output byte used

Bit 8-15: Free

Bit 16-23: Inversion mask for writing the hardware byte

Bit 24-31: Free

Possible inputs:

1:

840D on-board outputs (4 high-speed + 4 bits via VDI specification)  
2, 3, 4, 5

External digital outputs (high-speed NCK O/I or VDI specification)

Related to:  
MD26004 \$MC\_NIBBLE\_PUNCH\_OUTMASK[n]

References:  
/FB/, A4, Digital and Analog NCK I/Os

26004	NIBBLE_PUNCH_OUTMASK		C01, C09	N4		
-	Mask for fast output bits		BYTE	PowerOn		
-						
-	8	1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/2	M

**Description:** Mask for high-speed output bits for punching and nibbling.  
 Byte 1: Contains the bit for stroke release  
 Bytes 2-8: Currently free  
 Special cases:  
 Only NIBBLE\_PUNCH\_OUTMASK[0] is significant.  
 This is used to define the output bit for the signal "Release stroke".  
 Related to:  
 MD26002 \$MC\_PUNCHNIB\_ASSIGN\_FASTOUT

26006	NIBBLE_PUNCH_INMASK		C01, C09	N4		
-	Mask for fast input bits		BYTE	PowerOn		
-						
-	8	1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/2	M

**Description:** This data can define up to 8 byte masks for the output of the high-speed bits.  
 The standard assignment of this data is as follows:  
 NIBBLE\_PUNCH\_INMASK[0]=1:  
 2° = first bit for the first punch interface (SPIF1)  
 NIBBLE\_PUNCH\_INMASK[1]=4:  
 Second punch interface (SPIF2), not available as standard  
 NIBBLE\_PUNCH\_INMASK[2]=0  
 ...  
 NIBBLE\_PUNCH\_INMASK[7]=0  
 Note:  
 -  
 Special cases:  
 Only NIBBLE\_PUNCH\_INMASK[0] is relevant. This is used to define the input bit for the signal "Stroke active".  
 Related to:  
 MD26000 \$MC\_PUNCHNIB\_ASSIGN\_FASTIN

26008	NIBBLE_PUNCH_CODE		C09	H2,K1		
-	Definition of M functions		DWORD	PowerOn		
-						
-	8	0, 23, 22, 25, 26, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/2	M

**Description:** This data defines the special M functions for punching and nibbling.

	Standard value	Example
NIBBLE_PUNCH_CODE[0] = 0	20	End punching, nibbling with M20
NIBBLE_PUNCH_CODE[1] = 23	23	End punching, nibbling with M23
NIBBLE_PUNCH_CODE[2] = 22	22	Start nibbling

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NIBBLE_PUNCH_CODE[3] = 25	25	Start punching
NIBBLE_PUNCH_CODE[4] = 26	26	Activate dwell time
NIBBLE_PUNCH_CODE[5] =122	122	Start nibbling with pretension, stroke control at servo level
NIBBLE_PUNCH_CODE[6] =125	125	Start punching with pretension, stroke control at servo level
NIBBLE_PUNCH_CODE[7] = 0	0	Not used (in preparation)

Special cases:

If MD26012 \$MC\_PUNCHNIB\_ACTIVATION = 2 (M functions are interpreted directly by the software), then MD26008 \$MC\_NIBBLE\_PUNCH\_CODE[0] =20 has to be set.

Related to:

MD26012 \$MC\_PUNCHNIB\_ACTIVATION

26010	PUNCHNIB_AXIS_MASK			C09	N4	
-	Definition of punching and nibbling axes			DWORD	PowerOn	
-						
-	-	7, 0, 0, 0, 0, 0, 0, 0...	-	-	7/2	M

**Description:** Defines the axes involved in punching and nibbling. That is all the axes defined here must be at rest during punching and nibbling.

Related to:

MD26016 \$MC\_PUNCH\_PARTITION\_TYPE

26012	PUNCHNIB_ACTIVATION			C09	K1	
-	Activation of punching and nibbling functions			DWORD	PowerOn	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/2	M

**Description:** This MD defines the ways in which punching and nibbling functions can be activated:

PUNCHNIB\_ACTIVATION = 0

None of the punching or nibbling functions can be activated. The automatic path segmentation is the only exception - if it is enabled via MD26014 \$MC\_PUNCH\_PATH\_SPLITTING.

PUNCHNIB\_ACTIVATION = 1

The functions are activated via language commands. If M functions are to be used, then they must be programmed using macros.

PUNCHNIB\_ACTIVATION = 2

The M functions are interpreted directly by the software. Language commands can still be used.

Note:

This option is intended only as a temporary solution.

Related to:

MD26014 \$MC\_PUNCH\_PATH\_SPLITTING

MD26008 \$MC\_NIBBLE\_PUNCH\_CODE[n]



26014	PUNCH_PATH_SPLITTING	C09	N4
-	Activation of automatic path segmentation	DWORD	PowerOn
-			
-	-	2, 2, 2, 2, 2, 2, 2, 2...	-
			7/2
			M

**Description:** Activation data for automatic path segmentation.

Value    Significance

-----

0 =  
Automatic path segmentation only active with punching and nibbling.

1 =  
Automatic path segmentation can also be activated without punching and nibbling functions;  
that is, it is programmable and be used NC internally

2 =  
Automatic path segmentation can only be used NC internally;  
that is it cannot be programmed.

26016	PUNCH_PARTITION_TYPE	C09	N4
-	Behavior of individual axes with automatic path segmentation	DWORD	PowerOn
-			
-	-	1, 0, 0, 0, 0, 0, 0, 0...	-
			7/2
			M

**Description:** This machine data defines how single axes that are also nibbling axes within the meaning of MD26010 \$MC\_PUNCHNIB\_AXIS\_MASK are to behave.

In this case, there are the following options for the behavior of the single axes during automatic path segmentation and stroke control:

PUNCH\_PARTITION\_TYPE = 0

No special behavior during automatic path segmentation. If the single axes are programmed together with path axes in one block, then their total traversing path is split up corresponding to the path axes. That is the pure geometric relationship between the single axes and path axes is identical to the undivided motion. If the single axes are programmed without the path axes but with SPN=<value>, then the path is divided according to the programmed SPN value.

PUNCH\_PARTITION\_TYPE = 1

In this case, the path of the single axes, if they are programmed together with path axes, are generally traversed in the first section (that is independently of the currently active type of interpolation).

PUNCH\_PARTITION\_TYPE = 2

In this case, the single axes behave with linear interpolation in the same way as with PUNCH\_PARTITION\_TYPE = 1, and with all other types of interpolation in the same way as with PUNCH\_PARTITION\_TYPE = 0.

Related to:

MD26010 \$MC\_PUNCHNIB\_AXIS\_MASK

26018	NIBBLE_PRE_START_TIME			C09	N4	
s	Delay time for nibbling/punching with G603			DOUBLE	PowerOn	
-						
-	-	0., 0., 0., 0., 0., 0., 0., 0., 0....	-	-	7/2	M

**Description:** To minimize any dead times due to the reaction time of the punching unit, it is possible to release the stroke before reaching the in-position window of the axes. The reference time for this is the interpolation end. Since there is normally a delay of some interpolation cycles after reaching the interpolation end (depending on the machine dynamics) until the axes actually come into position, the prestart time is a delay time with respect to reaching the interpolation end.

The function is therefore coupled to G603 (block change at the end of interpolation).

The time can be set via the machine data NIBBLE\_PRE\_START\_TIME).

Example:

With an interpolation cycle of 5 ms, a stroke shall be released 2 cycles after reaching the interpolation end. In this case, the value 0.010 s must be selected for NIBBLE\_PRE\_START\_TIME. If a value that is not integrally divisible by the set interpolation time is selected, then the stroke is initiated in the interpolation cycle following the set time.

26020	NIBBLE_SIGNAL_CHECK			C09	N4	
-	Alarm on chattering punching signal			DWORD	PowerOn	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/2	M

**Description:** When stroke active signal is set, for example by punch overshoots between the strokes, then the interpolation is stopped. It is also possible to generate the message "unclean punch signal" as a function of machine data NIBBLE\_SIGNAL\_CHECK.

0: No error message when the punching signal is irregular  
 1: Alarm, when the punching signal is irregular between strokes

27100	ABSBLOCK_FUNCTION_MASK			N01	K1,P1	
-	Parameterize basic blocks with absolute values			DWORD	PowerOn	
-						
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0	0x1	7/2	M

**Description:** Parameterization of the "basic blocks with absolute values" function

Bit 0 = 1 :  
 The position values of the transverse axis are always displayed as diameter values.

Transverse axes can be applied using MD20100 \$MC\_DIAMETER\_AX\_DEF or MD30460 \$MA\_BASE\_FUNCTION\_MASK, bit 2.

27200	MMC_INFO_NO_UNIT		EXP, -	-		
-	HMI info (without physical unit)		DOUBLE	PowerOn		
-						
-	80	45., 2., 0., 1., 0., - 1., 0., 1., 100., 1., 1., 0., 0., 0., 0....	-	-	0/2	M

Description: -

27201	MMC_INFO_NO_UNIT_STATUS		EXP, -	-		
-	HMI status info (without physical unit)		BYTE	PowerOn		
-						
-	80	1, 1...	-	-	0/2	M

Description: -

27202	MMC_INFO_POSN_LIN		EXP, -	-		
mm	HMI info (linear positions)		DOUBLE	PowerOn		
-						
-	50	0., 0., 1., 1., 0., 0., 100., 0., 0., 1000., 1., 1....	-	-	0/2	M

Description: -

27203	MMC_INFO_POSN_LIN_STATUS		EXP, -	-		
-	HMI status info (linear positions)		BYTE	PowerOn		
-						
-	50	1, 1...	-	-	0/2	M

Description: -

27204	MMC_INFO_VELO_LIN		EXP, -	-		
mm/min	HMI info (linear velocities)		DOUBLE	PowerOn		
-						
-	16	10., 10., 2000., 10000., 300., 1000., 1000., 10., 0., 0., 0., 0....	-	-	0/2	M

Description: -

27205	MMC_INFO_VELO_LIN_STATUS		EXP, -	-		
-	HMI status info (linear velocities)		BYTE	PowerOn		
-						
-	16	1, 1, 1, 1, 1, 1, 1, 0, 0, 0, 0, 0, 0, 0, 0...	-	-	0/2	M

Description: -

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27206	MMC_INFO_CUT_SPEED		EXP, -	-		
m/min	HMI info (cutting speed)		DOUBLE	PowerOn		
-						
-	5	100., 0., 0., 0., 0., 100., 0., 0., 0., 0....	-	-	0/2	M

Description: -

27207	MMC_INFO_CUT_SPEED_STATUS		EXP, -	-		
-	HMI status info (cutting speed)		BYTE	PowerOn		
-						
-	5	1, 0, 0, 0, 0, 1, 0, 0, 0, 0, 1, 0, 0, 0, 0...	-	-	0/2	M

Description: -

27208	MMC_INFO_REV_FEED		EXP, -	-		
mm/rev	HMI info (feed)		DOUBLE	PowerOn		
-						
-	10	1., 0.100, 1., 1., 0., 0., 0., 0., 0., 0....	-	-	0/2	M

Description: -

27209	MMC_INFO_REV_FEED_STATUS		EXP, -	-		
-	HMI status info (feed)		BYTE	PowerOn		
-						
-	10	1, 1, 1, 1, 0, 0, 0, 0, 0, 0, 1, 1, 1, 1, 0, 0, 0, 0, 0, 0...	-	-	0/2	M

Description: -

27400	OEM_CHAN_INFO		A01, A11	-		
-	OEM version information		STRING	PowerOn		
-						
-	3	, , , , , , , , , ...	-	-	7/2	M

Description: A version information freely available to the user  
(is indicated in the version screen)

27850	PROG_NET_TIMER_MODE		C09	-		
-	Impact of the program runtime net counter		DWORD	Reset		
-						
-	-	0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00...	0x00	0x03	7/2	M

Description: The program run time is measured using system variables and can be read out. It provides a means of outputting the current progress of the processing of a part program. This MD can be used to make the following settings on a channel-specific basis:

Bit 0 = 0

\$AC\_ACT\_PROG\_NET\_TIME is not deleted on a jump to the start of the program with GOTOS

Bit 0 = 1

\$AC\_ACT\_PROG\_NET\_TIME is deleted on a jump to the start of the program with GOTOS, the value is saved in \$AC\_OLD\_PROG\_NET\_TIMES, and the program counter \$AC\_OLD\_PROG\_NET\_TIME\_COUNT is incremented.

Bit 1 = 0

\$AC\_ACT\_PROG\_NET\_TIME ceases to be increased if override = 0 is set; in other words, the program run time is measured without the time for which the override was set to 0.

Bit 1 = 1

\$AC\_ACT\_PROG\_NET\_TIME is increased if override = 0; in other words, the program run time is measured with the time for which the override was set to 0.

Bits 2 to 31

Reserved

27860	PROCESSTIMER_MODE		C09	K1		
-	Activation and impact of program runtime measurement		DWORD	Reset		
-						
-	-	0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00...	0	0x7FF	7/2	M

**Description:** Timers are provided as system variables under the function program runtime. While the NCK-specific timers are always activated (for time measurements since the last control power on), the channel-specific timers have to be started via this machine data.

Meaning:

Bit 0 = 0

No measurement of total operating time for any part program

Bit 0 = 1

Measurement of total operating time is active for all part programs (\$AC\_OPERATING\_TIME)

Bit 1 = 0

No measurement of current program runtime

Bit 1 = 1

Measurement of current program runtime is active (\$AC\_CYCLE\_TIME)

Bit 2 = 0

No measurement of tool operating time

Bit 2 = 1

Measurement of tool operating time is active (\$AC\_CUTTING\_TIME)

Bit 3

Reserved

Bits 4,5 only when bit 0, 1, 2 = 1:

Bit 4 = 0 No measurement with active dry run feed

Bit 4 = 1 Measurement also with active dry run feed

Bit 5 = 0 No measurement with program test

Bit 5 = 1 Measurement also with program test

Bit 6 only when Bit 1 = 1:

Bit 6 = 0

Delete \$AC\_CYCLE\_TIME also with start by ASUB and PROG\_EVENTS

Bit 6 = 1  
 \$AC\_CYCLE\_TIME is not deleted on start by ASUB and PROG\_EVENTS.  
 Bit 7 only when bit 2 = 1:  
 Bit 7 = 0 \$AC\_CUTTING\_TIME counts only with active tool  
 Bit 7 = 1 \$AC\_CUTTING\_TIME counts irrespective of tool  
 Bits 8 only when bit 1 = 1  
 Bit 8 = 0  
 \$AC\_CYCLE\_TIME is not deleted on jumping to program start with GOTOS  
 Bit 8 = 1  
 \$AC\_CYCLE\_TIME is deleted on jumping to program start with GOTOS.  
 Bit 9 only when bits 0, 1 = 1:  
 Bit 9 = 0  
 \$AC\_OPERATING\_TIME, \$AC\_CYCLE\_TIME: No measurement with override = 0.  
 Bit 9 = 1  
 \$AC\_OPERATING\_TIME, \$AC\_CYCLE\_TIME: Measurement also with override = 0.  
 Bits 10 to 31  
 Reserved

27880	PART_COUNTER	C09	K1
-	Activation of workpiece counter	DWORD	Reset
-			
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0
		0x0FFFF	7/2 M

**Description:**

The part counters can be configured with this machine data.  
 Note: with bit 0 = 1 and \$AC\_REQUIRED\_PARTS smaller than 0 all workpiece counts activated in this MD are frozen at the status reached.  
 Meaning of the individual bits:  
 Bits 0 - 3:Activating \$AC\_REQUIRED\_PARTS  
 -----  
 Bit 0 = 1:Counter \$AC\_REQUIRED\_PARTS is activated  
 Further significance of bits 1-3 only when bit 0 =1 and \$AC\_REQUIRED\_PARTS > 0:  
 Bit 1 = 0:Alarm/VDI output if \$AC\_ACTUAL\_PARTS corresponds to \$AC\_REQUIRED\_PARTS  
 Bit 1 = 1:Alarm/VDI output if \$AC\_SPECIAL\_PARTS corresponds to \$AC\_REQUIRED\_PARTS  
 Bit 2Reserved!  
 Bit 3Reserved!  
 Bits 4 - 7:Activating \$AC\_TOTAL\_PARTS  
 -----  
 Bit 4 = 1:Counter \$AC\_TOTAL\_PARTS is active  
 Further meaning of bits 5-7 only when bit 4 =1 and \$AC\_REQUIRED\_PARTS > 0:  
 Bit 5 = 0:Counter \$AC\_TOTAL\_PARTS is incremented by 1 with a VDI output of M02/M30  
 Bit 5 = 1:Counter \$AC\_TOTAL\_PARTS is incremented by 1 with output of the M command from MD PART\_COUNTER\_MCODE[0]  
 Bit 6 = 0:\$AC\_TOTAL\_PARTS also active with program test/block search  
 Bit 7 = 1:counter \$AC\_TOTAL\_PARTS is incremented by 1 when jumping back with GOTOS

Bits 8 - 11:Activating \$AC\_ACTUAL\_PARTS

-----  
 Bit 8 = 1:Counter \$AC\_ACTUAL\_PARTS is active

Further significance of bits 9-11 only when bit 8 =1 and \$AC\_REQUIRED\_PARTS > 0:

Bit 9 = 0:Counter \$AC\_ACTUAL\_PARTS is incremented by 1 with a VDI output of M02/M30

Bit 9 = 1:Counter \$AC\_ACTUAL\_PARTS is incremented by 1 with output of the M command from MD PART\_COUNTER\_MCODE[1]

Bit 10 = 0:\$AC\_ACTUAL\_PARTS also active with program test/block search

Bit 10 = 1:No machining \$AC\_ACTUAL\_PARTS with program test/block search

Bit 11 = 1:counter \$AC\_ACTUAL\_PARTS is incremented by 1 when jumping back with GOTOS

Bit 12 - 15:Activating \$AC\_SPECIAL\_PARTS

-----  
 Bit 12 = 1:Counter \$AC\_SPECIAL\_PARTS is active

Further significance of bits 13-15 only when bit 12 =1 and \$AC\_REQUIRED\_PARTS > 0:

Bit 13 = 0:Counter \$AC\_SPECIAL\_PARTS is incremented by 1 with a VDI output of M02/M30

Bit 13 = 1:Counter \$AC\_SPECIAL\_PARTS is incremented by 1 with output of the M command from MD PART\_COUNTER\_MCODE[2]

Bit 14 = 0:\$AC\_SPECIAL\_PARTS also active with program test/block search

Bit 14 = 1:No machining \$AC\_SPECIAL\_PARTS with program test/block search

Bit 15 = 1:counter \$AC\_SPECIAL\_PARTS is incremented by 1 when jumping back with GOTOS

Related to:

MD27882 \$MC\_PART\_COUNTER\_MCODE

27882	PART_COUNTER_MCODE			C09	K1	
-	Workpiece counting with user-defined M command			BYTE	PowerOn	
-						
-	3	2, 2, 2, 2, 2, 2, 2, 2,	0	99	7/2	M
		2, 2, 2, 2...				

**Description:** If part counting is activated via MD27880 \$MC\_PART\_COUNTER, the count pulse can be triggered by a special M command.

Only then are the values defined here taken into account:

Meaning:

The part counters are incremented by 1 in the NST signal output of the M command described, where:

MD27882 \$MC\_PART\_COUNTER\_MCODE[0] for \$AC\_TOTAL\_PARTS

MD27882 \$MC\_PART\_COUNTER\_MCODE[1] for \$AC\_ACTUAL\_PARTS

MD27882 \$MC\_PART\_COUNTER\_MCODE[2] for \$AC\_SPECIAL\_PARTS

27900	REORG_LOG_LIMIT			EXP, C02	-	
-	Percentage of IPO buffer for enabling log file			BYTE	PowerOn	
-						
-	-	1, 1, 1, 1, 1, 1, 1, 1...	-	-	0/0	M

**Description:** The machine data defines the percentage of the IPO buffer above which data in the REORG LOG memory can be released in stages, if the block preparation has been interrupted due to an overflow of the REORG LOG data memory.

1.3 NC machine data

The released data are no longer available to the REORG function (References: /FB /, K1, "Mode Groups, Channels, Program Operation Mode").

A consequence of this status is that a further REORG command is canceled with an error message.

If the status of "non-reorganizability" occurs, warning 15110 is output. The output of the warning can be suppressed by enabling the highest significant bit. The bit is set by adding the value 128 to the input value in REORG\_LOG\_LIMIT.

In addition to the instructions of the NC blocks, the size of the IPO buffer and the REORG data memory also affect the frequency of data release.

Related to:

MD28000 \$MC\_MM\_REORG\_LOG\_FILE\_MEM

(memory size for REORG)

MD28060 \$MC\_MM\_IPO\_BUFFER\_SIZE

(number of blocks in the IPO buffer)

27920	TIME_LIMIT_NETTO_INT_TASK		EXP, C01	-		
s	Runtime limit of interpreter subtask		DOUBLE	PowerOn		
-						
-	-	0.005, 0.005, 0.005, 0.005, 0.005, 0.005...	0.001	0.100	7/0	M

**Description:** With MD27920 \$MC\_TIME\_LIMIT\_NETTO\_INT\_TASK, the maximum runtime of the interpreter subtask is set. The interpreter subtask is started from the preprocessing task. If the interpreter task does not end on its own within the time set with MD27920 \$MC\_TIME\_LIMIT\_NETTO\_INT\_TASK, it will be stopped and continued after a preprocessing cycle.

28000	MM_REORG_LOG_FILE_MEM		EXP, C02	V2, K1		
-	Memory space for REORG (DRAM)		DWORD	PowerOn		
-						
-	-	50, 50, 50, 50, 50, 50, 50, 50...	1	500	7/2	M

**Description:** Definition of the size (in kbyte) of the dynamic memory for the REORG-LOG data. The size of the memory determines the quantity of the data available for the function REORG.

References:

/FB/, K1, "Mode Groups, Channel, Program Operation"

28010	MM_NUM_REORG_LUD_MODULES		EXP, C02	V2, K1		
-	Number of blocks for local user variables in REORG (DRAM)		DWORD	PowerOn		
-						
-	-	8, 8, 8, 8, 8, 8, 8...	0	SLMAXNUMBE ROF_USERMO DULES	7/2	M

**Description:** Defines the number of additional LUD data blocks available for the function REORG (see Description of Functions, Channels, Mode Groups, Program Operation (K1)).

This value can be 0 if the function REORG is not used. The CNC always opens 12 LUD data blocks, of which 8 are used for NC programs and 4 for the ASUBS.



An LUD data block is needed for each NC program and ASUB in which a local user variable is defined. This value may have to be increased for the function REORG if a large IPO buffer is present and a large number of short NC programs in which LUD variables are defined are active (prepared NC blocks of the programs are located in the IPO buffer).

An LUD data block is needed for each of these programs. The size of the reserved memory is affected by the number of LUDs per NC program and their individual memory requirements. The LUD data blocks are stored in the dynamic memory.

The memory requirement for managing the blocks for local user variables with REORG can be determined as follows:

The size of the LUD blocks depends on the number of active LUDs and their data type. The memory for the LUD blocks is limited by the MD28000 \$MC\_MM\_REORG\_LOG\_FILE\_MEM (memory size for REORG).

28020	MM_NUM_LUD_NAMES_TOTAL			C02	V2,K1	
-	Number of local user variables (DRAM)			DWORD	PowerOn	
-						
-	-	2000, 2000, 2000, 2000, 2000, 2000, 2000...	2000	32000	7/2	M

**Description:** Defines the number of variables for the local user data (LUD) which are permitted to exist in the active sections of the program. Approximately 150 bytes of memory per variable are reserved for the names of the variables and the variable values. The memory required for the variable value is equal to the size of the data type. If the total of the local user variables from the active main program and the related subprograms is larger than the defined limit, the variables which are over the limit are not accepted during execution of the program. Dynamic memory is used for the variable names and variable values.

Overview of the memory used by the data types:

Data type	Memory used
REAL	8 bytes
INT	4 bytes
BOOL	1 byte
CHAR	1 byte
STRING	1 byte per character, 200 characters per string are possible
AXIS	4 bytes
FRAME	400 bytes

28040	MM_LUD_VALUES_MEM			C02	V2,K1	
-	Memory space for local user variables (DRAM)			DWORD	PowerOn	
-						
-	-	250, 250, 250, 250, 250, 250, 250, 250...	250	32000	7/2	M

**Description:** This MD defines the amount of memory space available for LUD variables. The maximum number of available LUDs is given by one of the limit values of MD28020 \$MC\_MM\_NUM\_LUD\_NAMES\_TOTAL or MD28040 \$MC\_MM\_LUD\_VALUES\_MEM.

1.3 NC machine data

The memory defined here is subdivided into (MD28040 \$MC\_MM\_LUD\_VALUES\_MEM \* 1024) / MD18242 \$MN\_MM\_MAX\_SIZE\_OF\_LUD\_VALUE blocks, and allocated to part programs which request memory. Each part program that contains at least one definition of an LUD variable or call parameters uses at least one such block.

It should be remembered that several part programs requiring memory can be open simultaneously in the NCK. The number depends on the type of programming, the program length, and the size of the internal NCK block memory upwards of (MD28060 \$MC\_MM\_IPO\_BUFFER\_SIZE, MD28070 \$MC\_MM\_NUM\_BLOCKS\_IN\_PREP).

Related to:

MD28020 \$MC\_MM\_NUM\_LUD\_NAMES\_TOTAL  
(number of local user variables (DRAM))

28050	MM_NUM_R_PARAM	C02	K1			
-	Number of channel-specific R variables (SRAM)	DWORD	PowerOn			
-						
-	-	100, 100, 100, 100, 100, 100, 100, 100...	0	32535	7/2	M

**Description:** Defines the number of R variables available in the channel. A maximum of 32535 R variables are available per channel. This machine data reserves 8 bytes of buffered user memory per R variable.  
R variables have a considerably lower management overhead in comparison to LUD and GUD variables.

Attention:

The buffered data are lost when this machine data is changed!

28060	MM_IPO_BUFFER_SIZE	C02	B1,K1			
-	Number of NC blocks in IPO buffer (DRAM)	DWORD	PowerOn			
-						
-	-	10, 10, 10, 10, 10, 10, 10, 10...	2	1000	7/2	M

**Description:** Defines the number of blocks for the interpolation buffer. This buffer contains prepared NC blocks available for the interpolation. A number of kbytes of the dynamic user memory are reserved for each NC block. The data also limits the number of blocks for look ahead consideration of speed limitation for the LookAhead function.

MD28060 \$MC\_MM\_IPO\_BUFFER\_SIZE is set by the system.

Related to:

MD28070 \$MC\_MM\_NUM\_BLOCKS\_IN\_PREP  
(number of blocks for block preparation)

28070	MM_NUM_BLOCKS_IN_PREP	EXP, C02	B1,K1			
-	Number of blocks for block preparation (DRAM)	DWORD	PowerOn			
-						
-	-	50, 50, 50, 50, 50, 50, 50, 50...	20	500	7/2	M

**Description:** Defines the number of NC blocks available for NC block preparation. This figure is determined mainly by the system software and is used largely for optimization. Approximately 10 Kbytes of dynamic memory is reserved per NC block.

Related to:

MD28060 \$MC\_MM\_IPO\_BUFFER\_SIZE  
(number of NC blocks with IPO buffer)

28080	MM_NUM_USER_FRAMES	C11, C02	K1,K2
-	Number of settable frames (SRAM)	DWORD	PowerOn
-			
-	-	5, 5, 5, 5, 5, 5, 5, 5...	5
		100	7/2
			M

**Description:** Defines the number of predefined user frames. Approximately 400 bytes of backup memory are reserved per frame.  
The standard system configuration provides four frames for G54 to G57 and one frame for G500.  
Special cases:  
The backup data are lost if this machine data is altered!

28081	MM_NUM_BASE_FRAMES	C02	M5,K2
-	Number of base frames (SRAM)	DWORD	PowerOn
-			
-	-	1, 1, 1, 1, 1, 1, 1, 1...	0
		16	7/2
			M

**Description:** Number of channel-specific base frames per channel.  
The value corresponds to the number of field elements for the predefined field \$P\_CHBFR[].  
Buffered memory is reserved for this.

28082	MM_SYSTEM_FRAME_MASK	C02	M5,K2,W1
-	System frames (SRAM)	DWORD	PowerOn
-			
-	-	0x21, 0x21, 0x21, 0x21, 0x21, 0x21, 0x21...	0
		0x00000FFF	7/2
			M

**Description:** Bit mask for configuring channel-specific system frames included in the channel.  
Bit 0: System frame for setting actual value and scratching  
Bit 1: System frame for external work offset  
Bit 2: System frame for TCARR and PAROT  
Bit 3: System frame for TOROT and TOFRAME  
Bit 4: System frame for workpiece reference points  
Bit 5: System frame for cycles  
Bit 6: System frame for transformations  
Bit 7: System frame \$P\_ISO1FR for ISO G51.1 Mirror  
Bit 8: System frame \$P\_ISO2FR for ISO G68 2DROT  
Bit 9: System frame \$P\_ISO3FR for ISO G68 3DROT  
Bit 10: System frame \$P\_ISO4FR for ISO G51 Scale  
Bit 11: System frame \$P\_RELFR for relative coordinate systems

28083	MM_SYSTEM_DATAFRAME_MASK	C02	-
-	System frames (SRAM)	DWORD	PowerOn
-			
-	-	0xF9F, 0xF9F, 0xF9F, 0, 0xF9F, 0xF9F, 0xF9F...	0
-			0x0000FFF
-			7/2
-			M

**Description:** Bit mask for configuring channel-specific system frames in the data storage (SRAM).

Bit 0: System frame for setting actual value and scratching

Bit 1: System frame for external work offset

Bit 2: System frame for TCARR and PAROT

Bit 3: System frame for TOROT and TOFRAME

Bit 4: System frame for workpiece reference points

Bit 5: System frame for cycles

Bit 6: System frame for transformations

Bit 7: System frame \$P\_ISO1FR for ISO G51.1 Mirror

Bit 8: System frame \$P\_ISO2FR for ISO G68 2DROT

Bit 9: System frame \$P\_ISO3FR for ISO G68 3DROT

Bit 10: System frame \$P\_ISO4FR for ISO G51 Scale

Bit 11: System frame \$P\_RELFR for relative coordinate systems

28085	MM_LINK_TOA_UNIT	C02, C09	FBW,S7
-	Assignment of a TO unit to a channel (SRAM)	DWORD	PowerOn
-			
-	-	1, 2, 3, 4, 5, 6, 7, 8...	1
-			10
-			7/2
-			M

**Description:** The TO area covers all tool, magazine, ... data blocks known to the NCK. The maximum number of units in the TO area is equal to the number of channels. If MD28085 \$MC\_MM\_LINK\_TOA\_UNIT = default setting, then each channel is assigned a TO unit individually.

If MD28085 \$MC\_MM\_LINK\_TOA\_UNIT = i, the channel is assigned TO unit i. This enables one TO unit to be assigned to multiple channels.

Notice

The upper limit does not indicate that this value is always practical or free of conflicts. If one channel (the first) is active in a system with a maximum of 2 channels, and the other is not, the MD on channel 1 can formally be given the value 2, but the NCK cannot work with it. This setting would mean that channel 1 did not have any blocks for tool offsets, as the channel with ID=2 did not exist.

The NCK detects this conflict at Power On and restart, and responds by automatically changing the (incorrect) value to the default value of the MD.

28090	MM_NUM_CC_BLOCK_ELEMENTS	EXP, C02	TE1,TE7,TE8,K1
-	Number of block elements for compile cycles (DRAM)	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
-			130
-			7/1
-			M

**Description:** The input value defines the number of block elements that can be used for compile cycles.

In the case of software version 2, approximately 1.2KB of dynamic memory is required per block element.

28100	MM_NUM_CC_BLOCK_USER_MEM	EXP, C02	TE1,TE7,TE8,K1
-	Size of block memory for compile cycles (DRAM), in KB	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0, 0...	0
-		64000	7/1
-			M

**Description:** The value defines the total capacity of block memory available to the user in the dynamic memory area for the compile cycles. The memory is allocated in staggered blocks of 128 bytes.

28105	MM_NUM_CC_HEAP_MEM	EXP, C02	TE7
-	Heap memory in kbytes for compile-cycle applications (DRAM)	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0, 0...	0
-		64000	7/2
-			M

**Description:** Size of the heap memory in kbytes which can be used by the compile cycle user.  
Dynamic memory is reserved.  
The memory is allocated in subdivisions of 128 byte blocks.  
The start address and the size of the reserved memory is made available via a binding, the management lies in the hands of the CC user.

28150	MM_NUM_VDIVAR_ELEMENTS	C02	A2,P3 pl,P3 sl
-	Number of elements for writing PLC variables	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0, 0...	0
-		32000	7/2
-			M

**Description:** The MD defines the number of elements which the user has available for writing PLC variables (\$A\_DBx=...). This number also applies to block search, but not to synchronized actions.  
The memory requirement is ca. 24 bytes per element.  
One element is needed for each write action when writing PLC variables in quick succession.  
If more writing actions are to be performed than elements are available, block transport must be guaranteed (trigger preprocessing stop, if required)  
However, the number of elements can be reduced if the accessing actions are made separately (block transport has already been accomplished). Writing accesses (var=\$A\_DBx) are unlimited.

28160	MM_NUM_LINKVAR_ELEMENTS	C02	B3
-	Number of elements for writing NCU-link variables	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0, 0...	0
-		32000	7/2
-			M

**Description:** Defines the number of elements which the user has available for programming link variables (\$A\_DLx=...). This number also applies to block search, but not to synchronized actions.  
The memory requirement is approx. 24 bytes per element.  
One element is needed for each write action when writing NCU-link variables in quick succession.  
However, the number of elements can be reduced if the accessing actions are made separately (block transport has already been accomplished).  
If more writing actions are to be performed than elements are available, block transport must be guaranteed (trigger preprocessing stop, if required).

1.3 NC machine data

28180	MM_MAX_TRACE_DATAPOINTS	EXP, C02, C06	-
-	Length of the trace data buffer	DWORD	PowerOn
NBUP			
-	-	100, 100, 100, 100, 100, 100, 100, 100...	0 20000 2/2 M

**Description:** MM\_MAX\_TRACE\_DATAPOINTS defines the size of an internal data buffer which contains the trace recordings.

28200	MM_NUM_PROTECT_AREA_CHAN	C02, C06, C09	A3
-	Number of files for channel-specific protection zones (SRAM)	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0 10 7/2 M

**Description:** This machine data defines how many blocks are set up for channel-specific protection zones.

Related to:

MD28210 \$MC\_MM\_NUM\_PROTECT\_AREA\_ACTIVE  
(number of simultaneously active protection zones)

MD18190 \$MN\_MM\_NUM\_PROTECT\_AREA\_NCK  
(number of files for machine-related protection zones (SRAM))

References:

/FB/, A3, "Axis/Contour Tunnel Monitoring, Protection Zones"

28210	MM_NUM_PROTECT_AREA_ACTIVE	C11, C02, C06, C09	A3
-	Number of simultaneously active protection zones in one channel	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0 10 7/2 M

**Description:** This machine data defines the number of protection zones that may be activated simultaneously for each channel.

It is not practical to enter a numerical value higher than MD18190 \$MN\_MM\_NUM\_PROTECT\_AREA\_NCK + MD28200 \$MC\_MM\_NUM\_PROTECT\_AREA\_CHAN.

Related to:

MD28200 \$MC\_MM\_NUM\_PROTECT\_AREA\_CHAN  
(Number of blocks for channel-specific protection zones)

MD18190 \$MN\_MM\_NUM\_PROTECT\_AREA\_NCK  
(Number of files for machine-related protection zones (SRAM))

References:

/FB1/ Function Manual Basic Functions; Axis Monitoring, Protection Zones (A3)

28212	MM_NUM_PROTECT_AREA_CONTOUR	C11, C02, C06, C09	A3
-	Elements for active protection zones (DRAM)	DWORD	PowerOn
-			
-	-	30, 30, 30, 30, 30, 30, 30, 30...	0 50 7/2 M

**Description:** This machine data defines for each channel how many internal contour elements in total are held available for active protection zones.

Dynamic memory is used.

The MD affects the memory requirements for the activated protection zones.

This machine data is active only if MD28210 \$MC\_MM\_NUM\_PROTECT\_AREA\_ACTIVE is not equal to 0.

28240	MM_NUM_SYNC_DIAG_ELEMENTS	N05, C02	-
-	Number of diagnostic elements for expressions in synchronized actions	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
		32000	7/2
			M

**Description:** The values of the variables and machine data during diagnostics of the motion-synchronous actions are saved to memory elements for storage in the control. A motion-synchronous action uses up to the number of elements for as many variables as are set with \$MC\_MAXNUM\_SYNC\_DIAG\_VAR.

The following are assigned:

- 1 element for each variable
- 1 element for each index

Example:

```
WHEN $R1 == 1 DO $R2 = $R[AC_MARKER[1]]
```

R1 = 2 elements, variable with written value 1 element, index "1" an element

R2 = 2 elements, variable with written value 1 Element, index "2" an element

AC\_MARKER = 2 elements, variable with read value 1 element, index "1" an element

R = 2 elements, variable with written value 1 element, index "1" an element

Total 8 elements.

28241	MAXNUM_SYNC_DIAG_VAR	N05	-
-	Maximum number of diagnostics variables per synchronized action	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
		10000	7/2
			M

**Description:** Maximum number of diagnostics variables per synchronized action.

28250	MM_NUM_SYNC_ELEMENTS	C02, -	2,8,6.1
-	Number of elements for expressions in synchronized actions	DWORD	PowerOn
-			
-	-	159, 159, 159, 159, 159, 159, 159, 159...	0
		32000	7/2
			M

**Description:** The expressions of the motion-synchronous actions are stored in memory elements in the control. A motion-synchronous action occupies at least 4 elements.

It occupies:

- 1 element for each operand in the condition
- >= 1 element for each action
- 2 elements for each assignment
- 1 element for each further operand in complex expressions.

One element is ca 64 bytes.

The option "Synchronous actions stage 2" is required if the MD is to be changed beyond its default value.

References:

Programming Guide, Advanced

28251	MM_NUM_SAFE_SYNC_ELEMENTS	C02, -	-
-	Number of elements for expressions in Safety synchr. actions	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
		32000	7/2
			M

**Description:** The expressions of motion-synchronous actions are stored in memory elements of the control. A motion-synchronous action assigns at least 4 elements.

Assignments:

Each operand in the condition:1 element

Each action:>= 1 element

Each assignment:2 elements

Each additional operand in complex expressions:1 element

Also see:

MD28250 \$MC\_MM\_NUM\_SYNC\_ELEMENTS

28252	MM_NUM_FCTDEF_ELEMENTS	C02	2.4,2.8,6.1
-	Number of FCTDEF elements	DWORD	PowerOn
-			
-	-	3, 3, 3, 3, 3, 3, 3, 3...	0
		100	7/2
			M

**Description:** Defines the number of FCTDEF elements.

28253	MM_NUM_SYNC_STRINGS	C02, -	-
-	Number of strings for expressions in synchronized actions	DWORD	PowerOn
-			
-	-	200, 200, 200, 200, 200, 200, 200, 200...	0
		32000	7/2
			M

**Description:** The expressions of motion-synchronous actions are saved in memory elements for storage in the control. Elements have to be reserved specifically for strings within expressions.

28254	MM_NUM_AC_PARAM	C02	-
-	Dimension of \$AC_PARAM.	DWORD	PowerOn
-			
-	-	50, 50, 50, 50, 50, 50, 50, 50...	0
		20000	7/2
			M

**Description:** Panel size of \$AC\_PARAM.

28255	MM_BUFFERED_AC_PARAM	C02	2.3,6.1
-	\$AC_PARAM[] is stored in SRAM.	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
		1	7/2
			M

**Description:** \$AC\_PARAM[] is stored in SRAM.

28256	MM_NUM_AC_MARKER	C02	2.3,6.1
-	Dimension of \$AC_MARKER	DWORD	PowerOn
-			
-	-	8, 8, 8, 8, 8, 8, 8, 8...	0
		20000	7/2
			M

**Description:** Number of channel-specific markers \$AC\_MARKER for motion-synchronous actions.

DRAM or SRAM is required depending on MD28257 \$MC\_MM\_BUFFERED\_AC\_MARKER.



28257	MM_BUFFERED_AC_MARKER	C02	2.3,6.1
-	\$AC_MARKER[] is stored in SRAM.	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
		1	7/2
			M

**Description:** \$AC\_MARKER[] is stored in SRAM.

28258	MM_NUM_AC_TIMER	C02	2.3,2.4,6.1
-	Number of time variables \$AC_TIMER (DRAM)	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
		10000	7/2
			M

**Description:** Number of channel-specific time variables \$AC\_TIMER for motion-synchronous actions (DRAM)

28260	NUM_AC_FIFO	C01	2.3,2.4,6.1
-	Number of FIFO variable for synchronized actions	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
		10	7/2
			M

**Description:** Number of FIFO variables \$AC\_FIFO1 - \$AC\_FIFO10 for motion-synchronous actions.

FIFO variables are used for product tracking. A piece of information (e.g. the product length) for each part on a conveyor belt can be temporarily stored in each FIFO variable.

FIFO variables are stored in R variables.

MD28262 \$MC\_START\_AC\_FIFO defines the number of the R variable as from which the FIFO variables can be stored. All R variables with lower numbers can be used freely in the part program.

R variables above the FIFO range cannot be written from the part program.

The number of R variables must set via MD28050 \$MC\_MM\_NUM\_R\_PARAM so that all FIFO variables can be accommodated from the start of the R variables:

MD28050 \$MC\_MM\_NUM\_R\_PARAM = MD28262 \$MC\_START\_AC\_FIFO + MD28260

\$MC\_NUM\_AC\_FIFO \* (MD28264 \$MC\_LEN\_AC\_FIFO + 6)

The FIFO variables bear the names \$AC\_FIFO1 to \$AC\_FIFO<sub>n</sub>.

They are stored as arrays.

The indices 0 - 5 have special meanings:

n= 0:

A new value is stored in the FIFO when writing with index 0.

The oldest element is read and removed from the FIFO when writing with index 0.

n=1: Access to the first element read in

n=2: Access to the last element 1 read in

n=3: Sum of all FIFO elements

n=4: Number of elements available in the FIFO

n=5: Current write index relative to FIFO start

n=6: 1st element read in

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28262	START_AC_FIFO	C01	2,3,2,4,6,1
-	FIFO variables store from R variable	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0   32535   7/2   M

**Description:** Number of the R variable as from which FIFO variables are stored. All R variables with lower numbers can be used freely in the part program. R variables above the FIFO range cannot be written from the part program.

The number of R variables must set via MD28050 \$MC\_MM\_NUM\_R\_PARAM so that all FIFO variables can be accommodated from the start of the R variables:  
 $MD28050 \$MC\_MM\_NUM\_R\_PARAM = MD28262 \$MC\_START\_AC\_FIFO + MD28260 \$MC\_NUM\_AC\_FIFO * (MD28264 \$MC\_LEN\_AC\_FIFO + 6)$

The FIFO variables bear the names \$AC\_FIFO1 to \$AC\_FIFO $n$ . They are stored as arrays.

The indices 0 - 5 have special meanings:

n= 0:  
 A new value is stored in the FIFO when writing with index 0.  
 The oldest element is read and removed from the FIFO when reading with index 0.

n=1: Access to the first element read in  
 n=2: Access to the last element read in  
 n=3: Sum of all FIFO elements  
 n=4: Number of elements available in the FIFO  
 n=5: Current write index relative to FIFO start

Related to:  
 MD28260 \$MC\_NUM\_AC\_FIFO

28264	LEN_AC_FIFO	C01	2,3,2,4,6,1,M5
-	Length of FIFO variables \$AC_FIFO1-\$AC_FIFO10	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0   32535   7/2   M

**Description:** Length of the FIFO variables \$AC\_FIFO1 to \$AC\_FIFO10.  
 All FIFO variables are the same length.

28266	MODE_AC_FIFO	C01	2,3,2,4,6,1
-	Mode of FIFO processing	BYTE	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0   -   7/2   M

**Description:** Mode of FIFO processing:

Bit 0 = 1:  
 The sum of all FIFO contents is updated at each write access.

Bit 0 = 0:  
 No summation

Related to:  
 MD28260 \$MC\_NUM\_AC\_FIFO

28274	MM_NUM_AC_SYSTEM_PARAM	EXP, C02	-
-	Number of \$AC_SYSTEM_PARAM for motion-synchronous actions	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0 20000 7/2 M

**Description:** Number of \$AC\_SYSTEM\_PARAM parameters for motion-synchronous actions. Depending on MD28255 \$MC\_MM\_BUFFERED\_AC\_PARAM, DRAM or SRAM is required. Reserved for SIEMENS applications.

28276	MM_NUM_AC_SYSTEM_MARKER	EXP, C02	-
-	Number of \$AC_SYSTEM_MARKER for motion-synchronous actions	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0 20000 7/2 M

**Description:** Number of \$AC\_SYSTEM\_MARKER markers for motion-synchronous actions. Depending on MD28257 \$MC\_MM\_BUFFERED\_AC\_MARKER, DRAM or SRAM is required. Reserved for SIEMENS applications.

28290	MM_SHAPED_TOOLS_ENABLE	C01, C08, C02	-
-	Enable tool radius compensation for contour tools	BOOLEAN	PowerOn
-			
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	- - 7/2 M

**Description:** The function "Tool radius compensation for contour tools" is enabled with this tool.

28300	MM_PROTOC_USER_ACTIVE	C02	-
-	Activation of logging for a user	BOOLEAN	PowerOn
-			
-	10	TRUE, FALSE, FALSE, FALSE, FALSE, TRUE, TRUE, TRUE, FALSE...	- - 1/1 M

**Description:** Activation of recording for a user. The users 0 and 1, and 5 - 9 are reserved for system functions. The users 2, 3 and 4 can be used by OEM.

28301	MM_PROTOC_NUM_ETP_OEM_TYP	C02	-
-	Number of OEM event types ETP.	DWORD	PowerOn
-			
-	10	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0 20 1/1 M

**Description:** Number of OEM event types in OPI module ETP.

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28302	MM_PROTOK_NUM_ETP_STD_TYP		C02	-		
-	Number of standard event types ETP		DWORD	PowerOn		
-						
-	10	28, 0, 0, 0, 0, 20, 20, 20, 0, 3...	0	59	1/1	M

**Description:** Number of standard event types required in the ETP OPI block.

28400	MM_ABSBLOCK		EXP, C02	K1		
-	Activate basic blocks with absolute values		DWORD	PowerOn		
-						
-	-	1, 1, 1, 1, 1, 1, 1...	0	512	7/2	M

**Description:** Value:  
 0: Basic blocks with absolute values deactivated.  
 1: Basic blocks with absolute values activated;  
 A display buffer of the following size is created:  
 (MD28257 \$MC\_MM\_BUFFERED\_AC\_MARKER + MD28070 \$MC\_MM\_NUM\_BLOCKS\_IN\_PREP) \*  
 256 bytes  
 >= 128: Basic blocks with absolute values activated.  
 A display buffer of the following size is created:  
 (MD28060 \$MC\_MM\_IPO\_BUFFER\_SIZE + MD28070 \$MC\_MM\_NUM\_BLOCKS\_IN\_PREP) \*  
 <value>

28402	MM_ABSBLOCK_BUFFER_CONF		EXP, C02	K1		
-	Setting of upload buffer size		DWORD	PowerOn		
-						
-	2	2, 4, 2, 4, 2, 4, 2, 4, 2, 4, 2, 4, 2, 4...	0	32000	7/2	M

**Description:** Dimensioning the size of the upload buffer:  
 MD28402 \$MC\_MM\_ABSBLOCK\_BUFFER\_CONF[0] : Number of blocks before the current block  
 MD28402 \$MC\_MM\_ABSBLOCK\_BUFFER\_CONF[1] : Number of blocks after the current block  
 The machine data is tested for the following upper / lower limits during startup:  
 0 <= MD28402 \$MC\_MM\_ABSBLOCK\_BUFFER\_CONF[0] <= 8  
 0 <= MD28402 \$MC\_MM\_ABSBLOCK\_BUFFER\_CONF[1] <= (MD28060 \$MC\_MM\_IPO\_BUFFER\_SIZE + MD28070 \$MC\_MM\_NUM\_BLOCKS\_IN\_PREP)  
 Alarm 4152 is issued when the limits are violated.

28450	MM_TOOL_DATA_CHG_BUFF_SIZE		-, C02, C06	-		
-	Buffer for tool data changes (DRAM)		DWORD	PowerOn		
-						
-	-	400, 400, 400, 400, 400, 400, 400, 400...	0	2500	7/2	M

**Description:** Number of entries in the buffer for the OPI change service for tool data.  
 Dynamic memory is used.  
 This buffer is created only if bit 2 or bit 3 is set in MD17530 \$MN\_TOOL\_DATA\_CHANGE\_COUNTER.

28500	MM_PREP_TASK_STACK_SIZE		EXP, C02	K1		
-	Stack size of preparation task (DRAM)		DWORD	PowerOn		
-						
-	-	100, 100, 100, 100, 100, 100, 100, 100...	100	600	0/0	M

**Description:** Defines the stack size in kbytes for the preparation task. The stack is stored in the dynamic memory.

Note:

This machine data is assigned internally by the control and must not be altered by the user.

28502	MM_INT_TASK_STACK_SIZE		EXP, C02	-		
-	Stack size for interpreter subtask (kB).		DWORD	PowerOn		
-						
-	-	30, 30, 30, 30, 30, 30, 30, 30...	30	60	0/0	M

**Description:** Definition of the stack size (kByte) for the interpreter subtask.

28520	MM_MAX_AXISPOLY_PER_BLOCK		C02	B1		
-	maximal number of axial polynomials per block		DWORD	PowerOn		
-						
-	-	3, 3, 3, 3, 3, 3, 3, 3...	1	5	7/2	M

**Description:** Maximum number of axis polynomials which can be contained in a block. In the standard case, each block only contains one polynomial per axis, i.e. this data can immediately be set to one. Currently, more polynomials are only needed for the new ADIS function with G643. In this case, this data must have a minimum value of three.

28530	MM_PATH_VELO_SEGMENTS		C02	A2,B1		
-	Number of memory elements for path velocity limitation		DWORD	PowerOn		
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	100	7/2	M

**Description:** Number of memory elements available for limiting the path velocity and changing it in the block.

0 : Each block is limited by a maximum path velocity.

> 0 : If required, a profile of the permissible path velocity ; and its modification options is generated and monitored ; in the block.

; This results in a smoother axis velocity progression and ; a shorter travel time.

; MD28530 \$MC\_MM\_PATH\_VELO\_SEGMENTS defines the average ; number of segments available in the block.

; The necessary setting essentially depends ; on the requirements.

The following values are recommended:

3: for G643 and G644, if only geometry axes are traversed

5: for G643 and G644, if geometry and rotary axes are traversed

5: for COMPCAD

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5: for dyn. transformation

A value that is too low this may lead to additional velocity limitations if a sufficient number of blocks cannot be made available for interpolation.

MD28530 \$MC\_MM\_PATH\_VELO\_SEGMENTS additionally increases the memory requirement of dyn. Look Ahead. Values higher than 5 are only practical in exceptional cases.

3 ... 5 :

Recommended setting.

28533	MM_LOOKAH_FFORM_UNITS	C02	-
-	Memory for extended LookAhead	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0   100000   7/2   M

**Description:** The machine data is used to configure the work memory for extended LookAhead. The MD scales the value defined internally through MD28060 \$MC\_MM\_IPO\_BUFFER\_SIZE, MD28520 \$MC\_MM\_MAX\_AXISPOLY\_PER\_BLOCK, MD28530 \$MC\_MM\_PATH\_VELO\_SEGMENTS, MD28535 \$MC\_MM\_FEED\_PROFILE\_SEGMENTS, MD28540 \$MC\_MM\_ARCLENGTH\_SEGMENTS).

Its practical size depends on the part program, the block lengths, the axis dynamics, and an active kinematic transformation.

The MD should only be set for those channels in which free-form surfaces are also machined.

0 : default LookAhead is active.  
 > 0 : extended LookAhead is active if switched on by MD20443 \$MC\_LOOKAH\_FFORM.

The guide value for free-form surface applications is: 18..20

28535	MM_FEED_PROFILE_SEGMENTS	C02	-
-	Number of memory element for feed profiles	DWORD	PowerOn
-			
-	-	1, 1, 1, 1, 1, 1, 1, 1...	1   10   7/2   M

**Description:** Number of memory elements available for feed profile per block. The default value 1 is adequate for a programmable feed profile (FLIN, FCUB, FPO()).

If compile cycle applications require more segments per block, this machine data must be increased accordingly.

If, for example, a feed profile is to be activated in which there is deceleration at both the beginning and the end of the block, 3 segments will be required for the feed profile in the block, i.e. this MD must have value 3.

28540	MM_ARCLENGTH_SEGMENTS	C02	B1
-	Number of memory elements for arc length function representation	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0   100   7/2   M

**Description:** Number of memory elements available for the arc length function for parameterizing polynomials.

If this machine data is equal to zero, a fixed interval division is used to represent the arc length function. In this case, the calculated function is only tangent-continuous. This can lead to discontinuities in the axis accelerations.

If the function G643 or G644 is used for smoothing and/or COMPCAD, this MD should be assigned a value of at least 10. In this case, the calculated function also has a constant curvature which results in a smoother progression of the path velocity, as well as the axis velocities and accelerations.

Values substantially larger than 10 are only practical in exceptional cases. Not only the value of MD28540 \$MC\_MM\_ARCLENGTH\_SEGMENTS but also that of MD20262 \$MC\_SPLINE\_FEED\_PRECISION are crucial for the accuracy.

28560	MM_SEARCH_RUN_RESTORE_MODE	C02	K2
-	Data restore after simulation	DWORD	PowerOn
-			
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0
		0x00000001	7/2
			M

**Description:** Bit mask to restore data after cancelation of a simulated program execution. The following applies:  
Bit 0: All frames in the data storage are restored.

28580	MM_ORIPATH_CONFIG	C02	-
-	Setting for ORIPATH path-relative orientation	BYTE	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0
		1	1/1
			M

**Description:** This MD is used to configure the behavior with ORIPATH, that is path-relative interpolation of the tool orientation. Furthermore, orientation smoothing is enabled with the G codes OSD or OST.

The following options are available:

0: MD21094 \$MC\_ORIPATH\_MODE has no effect. G codes OSD and OST have no effect.

1: The "genuine" path-relative orientation interpolation can be activated with MD21094 \$MC\_ORIPATH\_MODE = 1. The reference of the tool orientation to the path tangent and to the vector normal to the surface programmed with LEAD/TILT is retained throughout the block.

Note:

Alarm 10980 is output if ORIPATH is programmed with MD21094 \$MC\_ORIPATH\_MODE = 1 or OSD or OST without MD28580 \$MC\_MM\_ORIPATH\_CONFIG = 1.

28590	MM_ORISON_BLOCKS	C02	-
-	Setting for orientation smoothing	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-
		-	1/1
			M

**Description:** This MD is used to activate and reserve memory for the function "orientation smoothing with ORISON". If this data has a value of "zero", no orientation smoothing will be possible.

The value of this machine data indicates the maximum number of blocks over which the orientation is smoothed. The value of this MD should be at least high enough that the blocks

to be averaged fit in the buffer. This is dependent upon the maximum set tolerance and the average distance traversed by the programmed blocks or the length of the part blocks generated (see MD \$MC\_ORISON\_STEP\_LENGTH).

.Setting this MD to higher values will significantly increase the memory requirement in the DRAM.

A value of 4 should be entered as a minimum.

If this MD is < 4 and if G code ORISON is programmed, alarm 10982 will be displayed.

28600	MM_NUM_WORKAREA_CS_GROUPS	C02	-
-	Number of coordinate system-specific operating range limits	DWORD	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0   10   7/2   M

**Description:** Number of data blocks in the channel that are created for coordinate system-specific operating range limits.  
It indicates the maximum value of the 1st index of system variable \$P\_WORKAREA\_CS...[WALimNo, Ax]. It furthermore defines the number of the programmable G functions "WALCS1, WALCS2, ... WALCS10" as well as the maximum value of the system variable \$AC\_WORKAREA\_CS\_GROUP".  
= 0: Function "Monitoring of coordinate system-specific operating range limits" cannot be activated.

28610	MM_PREPDYN_BLOCKS	C02	-
-	Number of blocks for velocity preparation	BYTE	PowerOn
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0   30   1/1   M

**Description:** This MD is used to define the number of blocks that are considered when defining the path velocity (velocity preparation). If the value of this MD is zero, only the relevant axis motions are considered in this block in order to define the maximum path velocity of a block. If the geometry in adjacent blocks is also considered when defining the path velocity, the path velocity will be more homogenous.

29000	LOOKAH_NUM_CHECKED_BLOCKS	C01, C02, C09, C05	-
-	Option data	DWORD	PowerOn
-			
-	-	1, 1, 1, 1, 1, 1, 1, 1...	0   0x7FFFFFFF   7/1   M

**Description:** Data for path-related dynamic LookAhead:  
(Maximum) number of blocks surveyed beyond the current block for look ahead consideration of speed limits.  
The value defines an upper limit. The value should not be set too low in order to avoid unnecessary speed reductions.  
Increasing the value above the maximum number of blocks in the IPO buffer ( MM\_IPO\_BUFFER\_SIZE ) has no effect.  
A LookAhead buffer is not set up for 0 (working memory is relieved).  
If in this case LookAhead is activated by part program, then the speed is reduced to zero at the end of each block.  
Unbuffered memory is needed.  
Option data



### 1.3.3 Axis-specific machine data

Number	Identifier			Display filters	Reference	
Unit	Name			Data type	Active	
Attributes						
System	Dimension	Default value (LIN/ROT)	Minimum value (LIN/ROT)	Maximum value (LIN/ROT)	Protection	Class

**Description:** Description

30110	CTRLOUT_MODULE_NR			A01, A11, -	G2, S9	
-	Setpoint assignment: module number			BYTE	PowerOn	
-						
-	1	1, 2, 3, 4, 5, 6, 7, 8...	1	31	7/2	M

**Description:** Enter in this MD the number of the module within a bus segment through which the output is addressed.

For axes on the PROFIBUS/PROFINET, the number of the drive assigned with MD13050 \$MN\_DRIVE\_LOGIC\_ADDRESS must be entered here (MD30110 \$MA\_CTRLOUT\_MODULE\_NR=n consequently points to MD13050 \$MN\_DRIVE\_LOGIC\_ADDRESS [n]).

30120	CTRLOUT_NR			EXP, A01, -	G2	
-	Setpoint assignment: Setpoint output on drive submodule/ module			BYTE	PowerOn	
-						
-	1	1, 1, 1, 1, 1, 1, 1, 1...	1	3	2/2	M

**Description:** Number of the output on a module which is used to address the setpoint output.

The value is always 1 for modular drives.

30130	CTRLOUT_TYPE			A01, A11	G2, M3, S9	
-	Output type of setpoint			BYTE	PowerOn	
-						
-	1	0	0	3	7/2	M

**Description:** The type of speed setpoint output is entered in this MD:

0: Simulation (no hardware required)  
 1: Setpoint output active (differentiated by hardware configuration)  
 2: stepper motor  
 3: reserved (previously stepper motor)  
 4: reserved (previously virtual axis, simulation, no hardware available)  
 For SW 4 and higher, MD30132 \$MA\_IS\_VIRTUAL\_AX must now be used instead of the value 4.

30132	IS_VIRTUAL_AX			A01	M3, TE1, TE3	
-	Axis is a virtual axis			BOOLEAN	PowerOn	
CTEQ						
-	1	FALSE	-	-	7/2	M

**Description:** Virtual axis. An axis that is also interpolated in follow-up mode. (Electronic transfer technology; virtual and real master values.)

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This MD is the successor to MD30130 \$MA\_CTRLOUT\_TYPE=4. MD30130 \$MA\_CTRLOUT\_TYPE=0 and MD30132 \$MA\_IS\_VIRTUAL\_AX=1 must now be used instead of MD30130 \$MA\_CTRLOUT\_TYPE=4.

Related to:

MD30130 \$MA\_CTRLOUT\_TYPE

30134	IS_UNIPOLAR_OUTPUT			A01	G2	
-	Setpoint output is unipolar			BYTE	PowerOn	
-						
-	1	0	0	2	7/2	M

**Description:** Only for PROFIdrive, special application of analog additional drives: Unipolar output driver (for unipolar analog drive actuator): Only positive set speeds are supplied to the drive, the sign of the set speed is separately output in its own digital control signal.  
 Input value "0":  
 Bipolar output with pos./neg. set speed (this is the normal case)  
 Input value "1":  
 0. Digital bit = servo enable  
 1. Digital bit = neg. direction of travel  
 Input value "2": (linking of enable and direction of travel signals):  
 0. Digital bit = servo enable pos. direction of travel  
 1. Digital bit = servo enable neg. direction of travel

30200	NUM_ENCS			A01, A02, -	G2,R1,Z1	
-	Number of encoders			BYTE	PowerOn	
-						
-	-	1	0	2	7/2	M

**Description:** The number of encoders of the axis or spindle is to be entered in the MD for actual position value sensing (the differentiation between direct and indirect measuring systems, i.e. the locations at which these encoders are installed, is then specified, for example, in MD31040 \$MA\_ENC\_IS\_DIRECT). For simulation axes/spindles, MD30200 \$MA\_NUM\_ENCS > 0 must be specified for referencing.

30220	ENC_MODULE_NR			A01, A02, A11	G2	
-	Actual value assignment: Drive number/measuring circuit number			BYTE	PowerOn	
-						
-	2	1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7...	1	31	7/2	M

**Description:** The number of the module within a bus segment (MD30210 \$MA\_ENC\_SEGMENT\_NR[n]) through which the encoder is addressed must be entered in the MD.  
 For axes on PROFIBUS/PROFINET, the number of the drive assigned via MD13050 \$MN\_DRIVE\_LOGIC\_ADDRESS must be entered here (MD30220 \$MA\_ENC\_MODULE\_NR=n consequently points to MD13050 \$MN\_DRIVE\_LOGIC\_ADDRESS[n]).  
 The index[n] of the machine data has the following coding:  
 [Encoder no.]: 0 or 1  
 Related to:  
 MD30110 \$MA\_CTRLOUT\_MODULE\_NR[n]  
 (setpoint assignment: drive number/module number)

30230	ENC_INPUT_NR	A01, A02, A11,	G2,S9
-	Actual value assignm.: Input on drive module/meas. circuit board	BYTE	PowerOn
-			
-	2	1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2...	1
		2	7/2
			M

**Description:** For PROFIdrive:  
Number of the encoder within the PROFIdrive message frame through which the encoder is addressed.  
For example telegram 103: 1 (=G1\_ZSW etc.) or 2 (=G2\_ZSW etc.).  
The index[n] of the machine data has the following coding:  
[Encoder no.]: 0 or 1  
If an input is selected, to which no encoder is connected, alarm 300008 "Measuring circuit not available on drive" is output.

30240	ENC_TYPE	A01, A02, A11,	A3,,G2,R1
-	Encoder type of actual value sensing (actual position value).	BYTE	PowerOn
-			
-	2	0, 0	0
		5	7/2
			M

**Description:** Encoder type:  
0: Simulation  
1: Raw signal generator (high resolution)  
2: reserved  
3: reserved  
4: General absolute encoder (e.g. with EnDat interface)  
5: reserved  
Corresponds to:  
PROFIdrive parameter p979 (cf. there)

30242	ENC_IS_INDEPENDENT	A02, A11, -	G2,R1
-	Encoder is independent	BYTE	NEW CONF
-			
-	2	0, 0	0
		3	7/2
			M

**Description:** If actual value corrections performed by the NC on the encoder selected for position control are not to influence the actual value of any other encoder defined in the same axis, then the position control encoder must be declared to be "independent".

Actual value corrections include the following:

- Modulo treatment,
- Reference point approach,
- Measuring system calibration,
- PRESET

Example:

```
MD30200 $MA_NUM_ENCS[ AX1 ] = 2
MD30242 $MA_ENC_IS_INDEPENDENT[ 0, AX1 ] = 0
MD30242 $MA_ENC_IS_INDEPENDENT[ 1, AX1 ] = 1
```

1.3 NC machine data

When the VDI interface has selected the first encoder for position control, the above mentioned actual value corrections will be executed on this encoder only.

When the VDI interface has selected the second encoder for position control, the above mentioned actual value corrections will be executed on both encoders.

The machine data is therefore only valid for encoders that have not been selected by the VDI interface for position control (passive encoders).

As from SW5, the scope of functions has been extended:

MD30242 \$MA\_ENC\_IS\_INDEPENDENT = 2

The passive encoder is dependent. The active encoder changes the actual encoder value. In combination with MD34102 \$MA\_REFP\_SYNC\_ENCS = 1, the passive encoder is adjusted to the active encoder during reference point approach, but is NOT referenced.

In reference mode MD34200 \$MA\_ENC\_REFP\_MODE = 3 (distance-coded reference marks), the passive encoder is automatically referenced with the next traversing movement after zero mark distance overtravel. This is done independently of the current mode setting.

MD30242 \$MA\_ENC\_IS\_INDEPENDENT = 3

In contrast to MD30242 \$MA\_ENC\_IS\_INDEPENDENT = 1, modulo actual value corrections are executed in the passive encoder of modulo rotary axes.

30244	ENC_MEAS_TYPE	A01, A02, A11			-	
-	Encoder measurement type	BYTE			PowerOn	
-						
-	2	1, 1	0	1	7/2	M

**Description:**

For PROFIdrive only:

In combination with the MD13210 \$MN\_MEAS\_TYPE = 1 (decentralized measurement), this MD can be used to set the type of axial measuring function for drives.

Encoder measurement type:

0: encoder measurement type central (global) measurement

1: encoder measurement type decentral (local) measurement

MEAS_TYPE	ENC_MEAS_TYPE	measuring sensor input used
0	0	central
0	1	central
1	0	central
1	1	decentralized

30250	ACT_POS_ABS	EXP, A02, A08			R1	
-	Internal encoder position	DOUBLE			PowerOn	
ODLD, -, -						
-	2	0.0, 0.0	-	-	7/2	M

**Description:**

The actual position (hardware counter status only without machine reference) is stored (in internal format display) in this MD.

At power ON (or encoder activation), it acts with:

- Absolute encoders:

To restore the current position (in combination with the position, possibly with several meanings, buffered in the encoder).

- Incremental encoders:

To buffer the actual value beyond power OFF when the functionality is activated MD34210 \$MA\_ENC\_REFP\_STATE = 1 or. 2 (i.e. as a reference point replacement).

To buffer the actual value beyond power OFF when the functionality is activated MD34210 \$MA\_ENC\_REFP\_STATE = 3 (i.e. as a restored position value).

Note:

This MD is changed internally by the control during traversing movements. Loading a previously saved MD data block can therefore destroy the encoder calibration (machine position reference) of absolute encoders.

For software conversions, we recommend removing the MD data block from the old software release prior to conversion and reloading it into the new software release without moving any axis in the meantime. Protection level 1 should be set for SW 3.6; protection level 2 suffices for SW 4 and higher. The encoder calibration must be explicitly verified (controlled, calibrated) after the software conversion.

30260	ABS_INC_RATIO	EXP, A01, A02	-			
-	Absolute encoder: Ratio of absolute to incremental resolution	DWORD	PowerOn			
-						
-	2	4, 4	-	-	7/2	M

**Description:** Absolute track resolution in relation to the incremental signal resolution.

This MD only applies for absolute encoders:

- PROFIBUS drives:

Absolute information XIST2 related to incremental information XIST1.

In the case of plausible drive parameters (e.g. for SIMODRIVE611U: P1042/P1043 or P1044/P1045 or corresponding entries in PROFIdrive parameter p979) the value of this MD is automatically calculated and updated from drive parameters (if parameter read-out has not been deactivated with \$MN\_DRIVE\_FUNCTION\_MASK, bit2)

Implausible drive parameters (e.g. multiplication of absolute track higher than that of the incremental signal) are rejected and replaced by the value entered in the current MD.

Implausible input values in the current MD (e.g. value=0) are reset to the default value. In addition, alarm 26025 or 26002 is output to inform the user accordingly.

30270	ENC_ABS_BUFFERING	EXP, A01, A02	R1			
-	Absolute encoder: Traversing range extension	BYTE	PowerOn			
-						
-	2	0, 0	0	1	7/2	M

**Description:** This MD defines the way in which the absolute encoder position is buffered, and whether a traversing range extension is active on software side (exceeding the limits of the absolute value encoder range that can be displayed on the hardware).

"0" = standard = traversing range extension (compare ACT\_POS\_ABS) is active.

"1" = traversing range extension on software side is inactive.

When using an absolute linear scale, there will not be a traversing range overflow for mechanical reasons. This MD is therefore only valid for rotary absolute value encoders.

1.3 NC machine data

For rotary absolute value encoders, the traversing range that can be clearly displayed on the encoder side, is stored in MD34220 \$MA\_ENC\_ABS\_TURNS\_MODULO. You can do without a traversing range extension without any problems (a hardware counter overflow that might be within the traversing range is concealed in the software via shortest-path decision):

- a. in linear axes or limited rotary axes, if the actual traversing range on the load side is smaller than the traversing range on the load side that corresponds to MD34220 \$MA\_ENC\_ABS\_TURNS\_MODULO.
- b. in endlessly turning rotary axes (ROT\_IS\_MODULO = TRUE), if the absolute encoder is connected on the load side (no gear to be considered) or if "without remainder" can be calculated:

Number of rotations on the load side = ENC\_ABS\_TURNS\_MODULO \* gear ratio  
 (Example: ENC\_ABS\_TURNS\_MODULO = 4096 encoder rotations, gear 25:32, i.e. number of rotations on load side = 4096\*(25/32)=3200).

Notice:

If you do not meet the conditions under a. or b., you run the risk of getting a wrong absolute encoder position at next Power ON or encoder activation after parking without prewarning if the traversing range extension is not working. Therefore, the traversing range extension remains active in the standard version.

Related to:

- MD30240 \$MA\_ENC\_TYPE
- MD30300 \$MA\_IS\_ROT\_AX
- MD30310 \$MA\_ROT\_IS\_MODULO
- MD30250 \$MA\_ACT\_POS\_ABS
- MD34220 \$MA\_ENC\_ABS\_TURNS\_MODULO
- MD34090 \$MA\_REFP\_MOVE\_DIST\_CORR

30300	IS_ROT_AX	A01, A06, A11,	G1,K3,R2,T1,G2,K2,R1,S1,V1
-	Rotary axis / spindle	BOOLEAN	PowerOn
SCAL, CTEQ			
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	7/2 M

**Description:**

- 1: Axis: The axis is defined as a "rotary axis".
  - The special functions of the rotary axis are active or can be activated by means of additional machine data according to the type of machine required (see below).
  - The unit of measurement is degrees.
  - The units of the axis-specific machine and setting data are interpreted as follows with the standard control setting:
    - Positions in "degrees"
    - Speedsin "rev/minute"
    - Accelerationin "rev/second²"
    - Jerk limitationin "rev/second³"

Spindle:

The machine data should always be set to "1" for a spindle, otherwise alarm 4210 "Rotary axis declaration missing" is output.

0: The axis is defined as a "linear axis".

Special cases:

- For an axis: Alarm 4200 if the axis is already defined as a geometry axis.
- For a spindle: Alarm 4210

Related to:

The following machine data are active only after activation of MD30300

\$MA\_IS\_ROT\_AX = "1":

- MD30310 \$MA\_ROT\_IS\_MODULO "Modulo conversion for rotary axis"
- MD30320 \$MA\_DISPLAY\_IS\_MODULO "Position display is modulo"
- MD10210 \$MN\_INT\_INCR\_PER\_DEG "Calculation precision for angular positions"

30310	ROT_IS_MODULO	A01, A06, A11,	TE3,K3,R2,T1,A3,R1,R2,S1
-	Modulo conversion for rotary axis / spindle	BOOLEAN	PowerOn
CTEQ			
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	- - 7/2 M

**Description:** 1: A modulo conversion is performed on the setpoints for the rotary axis. The software limit switches and the working area limitations are inactive; the traversing range is therefore unlimited in both directions. MD30300 \$MA\_IS\_ROT\_AX must be set to "1"

0: No modulo conversion

MD irrelevant for:

MD30300 \$MA\_IS\_ROT\_AX = "0" (linear axes)

Related to:

MD30320 \$MA\_DISPLAY\_IS\_MODULO "Position display is modulo 360°"

MD30300 \$MA\_IS\_ROT\_AX = 1 "Rotary axis"

MD36100 \$MA\_POS\_LIMIT\_MINUS "Software limit switch minus"

MD36110 \$MA\_POS\_LIMIT\_PLUS "Software limit switch plus"

SD43430 \$SA\_WORKAREA\_LIMIT\_MINUS "Working area limitation minus"

SD43420 \$SA\_WORKAREA\_LIMIT\_PLUS "Working area limitation plus"

30320	DISPLAY_IS_MODULO	A01, A06, A11	R2,T1,K2
-	Modulo 360 degrees displayed for rotary axis or spindle.	BOOLEAN	PowerOn
CTEQ			
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	- - 7/2 M

**Description:** 1: "Modulo 360 degrees" position display is active:  
The position display of the rotary axis or spindle (for basic or machine coordinate system) is defined as "Modulo 360 degrees". In the case of a positive direction of rotation, the control resets the position display internally to 0.000 degrees following each cycle of 359.999 degrees. The display range is always positive and lies between 0 and 359.999 degrees.

0: Absolute position display is active:

In contrast to the modulo 360 degrees position display, absolute positions are indicated by the absolute position display, e.g. +360 degrees after 1 rotation, and +720 degrees after 2 rotations, etc in the positive direction. In this case, the display range is limited by the control in accordance with the linear axes.

1.3 NC machine data

MD irrelevant for:  
 Linear axes MD30300 \$MA\_IS\_ROT\_AX = "0"  
 Related to:  
 MD30300 \$MA\_IS\_ROT\_AX = 1 "Axis is rotary axis"

30330	MODULO_RANGE	EXP, A01, -	R2, T1, R1
degrees	Size of modulo range.	DOUBLE	Reset
CTEQ			
-	-	360.0	1.0
		360000000.0	7/2
			M

**Description:** Defines the size of the modulo range. Default positions are accepted and displayed within this range. Useful modulo ranges are n \* 360 degrees with integer n. Other settings are equally possible in principle. Attention should be paid to having a useful relationship between the positions in the NC and the mechanics (ambiguity). Velocity definitions are not affected by settings in this MD.

30340	MODULO_RANGE_START	EXP, A01	R1, R2
degrees	Modulo range start position	DOUBLE	Reset
CTEQ			
-	-	0.0	-
			7/2
			M

**Description:** Defines the start position for the modulo range.  
 Example:  
 Start = 0 degree -> modulo range 0 <-> 360 degrees  
 Start = 180 degrees -> modulo range 180 <-> 540 degrees  
 Start = -180 degrees -> modulo range -180 <-> 180 degrees

30350	SIMU_AX_VDI_OUTPUT	A01, A06	A2, G2, Z1
-	Axis signals output for simulation axes	BOOLEAN	PowerOn
CTEQ			
-	-	FALSE	-
			7/2
			M

**Description:** The machine data defines whether axis-specific interface signals are output to the PLC while an axis is being simulated.  
 1: The axis-specific NC/PLC interface signals for a simulated axis are output to the PLC.  
 This means that the user PLC program can be tested without the drives having to be available.  
 0: The axis-specific NC/PLC interface signals for a simulated axis are not output to the PLC.  
 All axis-specific NC/PLC interface signals are set to "0".  
 Not relevant for:  
 MD30130 \$MA\_CTRLOUT\_TYPE (setpoint output type) = 1

30450	IS_CONCURRENT_POS_AX	EXP, A01	G1
-	Default for reset: neutral/channel axis	BOOLEAN	Reset
CTEQ			
-	-	FALSE	-
			7/2
			M

**Description:** For SW4.3:  
 If FALSE: On RESET, a neutral axis is reassigned to the NC program.  
 If TRUE: On RESET, a neutral axis remains in the neutral axis state and an axis assigned to the NC program becomes a neutral axis



30455	MISC_FUNCTION_MASK	A06, A10	R2,S3,R1
-	Axis functions	DWORD	Reset
CTEQ			
-	-	0x00	0
		0x17FF	7/2
			M

**Description:**

Bit 0 = 0:

Modulo rotary axis/spindle: Programmed positions must be within the modulo range. Otherwise, an alarm is output.

Bit 0 = 1:

If positions outside the modulo range are programmed, no alarm is output. The position is modulo-converted internally.

Example.: B-5 is equivalent to B355, POS[A]=730 is identical with POS[A]=10 and SPOS=-360 behaves like SPOS=0 (modulo range 360 degrees)

Bit 1 = 0:

Determination of reference point position of rotary, distance-coded encoders analog (1:1) in relation to the mechanical absolute position.

Bit 1 = 1:

Determination of reference point position of rotary, distance-coded encoders within the configured modulo range.

For rotary axes with MD30310 \$MA\_ROT\_IS\_MODULO=0 using rotary, distance-coded encoders MD34200 \$MA\_ENC\_REFP\_MODE=3, the reference point position is determined as a function of MD30330 \$MA\_MODULO\_RANGE and MD30340

\$MA\_MODULO\_RANGE\_START. This is automatically adapted to the traversing limits of the modulo range. This bit is irrelevant for rotary axes with MD30310 \$MA\_ROT\_IS\_MODULO=1, since the reference point position is always determined within the modulo range.

Bit 2 = 0:

Modulo rotary axis positioned at G90 with AC by default.

Bit 2 = 1:

Modulo rotary axis positioned at G90 with DC by default (shortest path).

Bit 3 = 0:

For spindle/axis disable, \$VA\_IM, \$VA\_IM1, \$VA\_IM2 supply the setpoint.

Bit 3 = 1:

For spindle/axis disable, \$VA\_IM, \$VA\_IM1, \$VA\_IM2 supply the actual value.

Bit 4 = 0:

Synchronous spindle coupling, slave spindle: cancelation of feedrate enable will decelerate the coupled group.

Bit 4 = 1:

Slave spindle: Feedrate enable only refers to the interpolation share of the overlaid motion (SPOS, etc.) and has no impact on the coupling.

Bit 5 = 0:

Synchronous spindle coupling, slave spindle: Position control, feedforward control, and parameter block are set corresponding to the master spindle.

Bit 5 = 1:

Synchronous spindle coupling: The parameters of the slave spindle are set as in the uncoupled case.

Bit 6 = 0:

Programming of FA, OVRA, ACC, and VELOLIM is applied separately for spindle and axis modes. The assignment is made by the programmed axis or spindle identifier.

1.3 NC machine data

Bit 6 = 1:

Programming of FA, OVRA, ACC, and VELOLIM is applied jointly for spindle and axis modes, irrespective of the programmed identifier.

Bit 7 = 0:

Synchronous spindle, correct synchronism error: Correction value \$AA\_COUP\_CORR[Sn] is continuously calculated as long as the NC/PLC interface signal DB31, ... DBX31.6 (Correct synchronism) is set and setpoint-related synchronism is present.

Bit 7 = 1:

Synchronous spindle, correct synchronism error: Correction value \$AA\_COUP\_CORR[Sn] is calculated only at the moment the NC/PLC interface signal DB31, ... DBX31.6 (Correct synchronism) is set from 0 to 1.

Bit 8 = 0:

Absolute encoders can only be readjusted in the enabled state MD34210=1.

Bit 8 = 1:

Absolute encoders can also be readjusted in the adjusted state MD34210=2.

Bit 9 = 0:

Coupled axes (e.g. gantry) jointly delete their pulse enable if an error occurs.

Bit 9 = 1:

Coupled axes (e.g. gantry) only delete their pulse enable for their own errors.

Bit 10 = 0:

The maximum dynamic of a TRAIL or TANGON axis limits the maximum dynamic path response.

Bit 10 = 1:

The maximum dynamic response of a TRAIL or TANGON axis has no effects on the dynamic path response. This can lead to a longer overtravel of the dependent axis.

Bit 12 = 0:

When resetting the controller enable of the stationary axis/spindle (regarding this master axis/spindle), it is absolutely necessary to switch over to actual value coupling, as for fast stop after resetting the controller enable during motion (alarm 21612). This is true for generic couplings (with replacement cycles or for CP programming).

Bit 12 = 1:

When resetting the controller enable of the stationary axis/spindle (regarding this master axis/spindle), switchover to actual value coupling is suppressed. This is true for generic couplings (with replacement cycles or for CP programming).

30460	BASE_FUNCTION_MASK	A01	K5,P2,P1			
-	Axis functions	DWORD	PowerOn			
CTEQ						
-	-	0x00	0	0x1FF	7/2	M

**Description:** Axis-specific functions can be set by means of this MD.

The MD is bit-coded; the following bits are assigned:

Bit 0 = 0:

"Axis control" is not permissible.

Bit 0 = 1:  
 "Axis control" is permissible (the axis moves in the speed mode, if the NC/PLC interface signal DB31, ... DBX24.1 (Axis control) is set).

Bit 1:  
 Reserved for "Axis control".

Bit 2 = 0:  
 Axis-specific diameter programming not permitted.

Bit 2 = 1:  
 Axis-specific diameter programming permitted.

Bit 3:  
 Reserved for "Axis control"

Bit 4 = 0:  
 For control purposes, the axis can be used by NC and PLC.

Bit 4 = 1:  
 The axis is exclusively controlled by the PLC.

Bit 5 = 0:  
 The axis can be used by the NC and PLC.

Bit 5 = 1:  
 The axis is a permanently assigned PLC axis. However, the axis can be jogged and referenced.  
 Axis exchange between channels is not possible. The axis cannot be assigned to the NC program.

Bit 6 = 0:  
 The channel-specific interface signal DB21-30 DBX6.0 (feedforward disable) has an effect on the axis, even though it is a PLC-controlled axis.

Bit 6 = 1:  
 The channel-specific interface signal DB21-30 DBX6.0 (feedforward disable) will have no effect on the axis, if it is a PLC-controlled axis.

Bit 7 = 0:  
 The channel-specific interface signal DB21-30 DBX36.3 (all axes stationary) is set dependently of the axis, even though it is PLC-controlled.

Bit 7 = 1:  
 The channel-specific interface signal DB21-30 DBX36.3 (all axes stationary) will be set independently of the axis, if this axis is PLC-controlled.

Bit 8 = 0:  
 The axis is an 'interpolating (full) axis' (path/GEO/additional path axis/GEOAX()/spindle for thread cutting/tapping)

Bit 8 = 1:  
 The axis is a positioning axis / auxiliary spindle

30465	AXIS_LANG_SUB_MASK			N01	K1	
-	Substitution of NC language commands			DWORD	PowerOn	
-						
-	-	0x0	0x0	0x3	7/2	M

**Description:** MD30465 \$MA\_AXIS\_LANG\_SUB\_MASK defines for the leading spindle(s) of a coupling (synchronous spindle coupling, ELG, tangential tracking, coupled motion, master value coupling, master/slave) which language constructs/functions are to be substituted by the user program set by MD15700 \$MN\_LANG\_SUB\_NAME / MD15702 \$MN\_LANG\_SUB\_PATH (default: /\_N\_CMA\_DIR/\_N\_LANG\_SUB\_SPF).

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The substitution is executed only if a coupling is active for the relevant spindle and, in the case of a gear stage change, only if a gear stage change is actually pending.

Bit 0 = 1:

Automatic (M40) and direct (M41-M45) gear stage change

Bit 1 = 1:

Spindle positioning with SPOS/SPOSA/M19

30500	INDEX_AX_ASSIGN_POS_TAB	A01, A10	T1, H1			
-	Axis is an indexing axis	BYTE	Reset			
-						
-	-	0	0	3	7/2	M

**Description:** The axis is declared as an indexing axis by assignment of indexing position table 1 or 2.

0: The axis is not declared as an indexing axis

1: The axis is an indexing axis. The associated indexing positions are stored in table 1 (MD10910 \$MN\_INDEX\_AX\_POS\_TAB\_1).

2: The axis is an indexing axis. The associated indexing positions are stored in table 2 (MD10930 \$MN\_INDEX\_AX\_POS\_TAB\_2).

3: Equidistant indexing with SW 4.3 and higher (840D) and SW 2.3 and higher (810D)

>3: Alarm 17090 "Value violates upper limit"

Special cases:

Several axes can be assigned to an indexing position table on the condition that all these indexing axes are of the same type (linear axis, rotary axis, modulo 360° function). If they are not, alarm 4000 is output during power-up.

Alarm 17500 "Axis is not an indexing axis"

Alarm 17090 "Value violates upper limit"

Related to:

MD10910 \$MN\_INDEX\_AX\_POS\_TAB\_1 (indexing position table 1)

MD10900 \$MN\_INDEX\_AX\_LENGTH\_POS\_TAB\_1

(no. of indexing positions used in table 1)

MD10930 \$MN\_INDEX\_AX\_POS\_TAB\_2 (indexing position table 2)

MD10920 \$MN\_INDEX\_AX\_LENGTH\_POS\_TAB\_2

(no. of indexing positions used in table 2)

For equidistant indexings with value 3:

MD30501 \$MA\_INDEX\_AX\_NUMERATOR Numerator

MD30502 \$MA\_INDEX\_AX\_DENOMINATOR Denominator

MD30503 \$MA\_INDEX\_AX\_OFFSET First indexing position

MD30505 \$MA\_HIRTH\_IS\_ACTIVE Hirth tooth system

30501	INDEX_AX_NUMERATOR	A01, A10	T1			
mm, degrees	Indexing axis equidistant positions numerator	DOUBLE	Reset			
-						
-	-	0.0	-	-	7/2	M

**Description:** Defines the value of the numerator for calculating the distances between two indexing positions when the positions are equidistant. Modulo axes ignore this value and use MD30330 \$MA\_MODULO\_RANGE instead.

MD irrelevant for non-equidistant indexes in accordance with tables.

Related to:  
 MD30502 \$MA\_INDEX\_AX\_DENOMINATOR,  
 MD30503 \$MA\_INDEX\_AX\_OFFSET;  
 MD30500 \$MA\_INDEX\_AX\_ASSIGN\_POS\_TAB

30502	INDEX_AX_DENOMINATOR	A01, A10	T1
-	Indexing axis equidistant positions denominator	DWORD	Reset
-			
-	-	1	1
-	-	-	7/2
-	-	-	M

**Description:** Defines the value of the denominator for calculating the distances between two indexing positions when the positions are equidistant. For modulo axes it therefore specifies the number of indexing positions.

MD irrelevant for non-equidistant indexes in accordance with tables.

Related to:  
 MD30501 \$MA\_INDEX\_AX\_NUMERATOR,  
 MD30503 \$MA\_INDEX\_AX\_OFFSET,  
 MD30500 \$MA\_INDEX\_AX\_ASSIGN\_POS\_TAB

30503	INDEX_AX_OFFSET	A01, A10	T1,R2
mm, degrees	Indexing axis with equidistant positions first index position	DOUBLE	Reset
-			
-	-	0.0	-
-	-	-	7/2
-	-	-	M

**Description:** Defines the position of the first indexing position from zero for an indexing axis with equidistant positions.

MD irrelevant for non-equidistant indexes in accordance with tables.

Related to:  
 MD30501 \$MA\_INDEX\_AX\_NUMERATOR, MD30502 \$MA\_INDEX\_AX\_DENOMINATOR, MD30500 \$MA\_INDEX\_AX\_ASSIGN\_POS\_TAB

30505	HIRTH_IS_ACTIVE	A01, A10	T1
-	Axis is an indexing axis with Hirth tooth system	BOOLEAN	Reset
CTEQ			
-	-	FALSE	-
-	-	-	7/2
-	-	-	M

**Description:** Hirth tooth system is active when value 1 is set.

MD irrelevant if axis is not an indexing axis.

Related to:  
 MD30500 \$MA\_INDEX\_AX\_ASSIGN\_POS\_TAB, MD30501 \$MA\_INDEX\_AX\_NUMERATOR, MD30502 \$MA\_INDEX\_AX\_DENOMINATOR, MD30503 \$MA\_INDEX\_AX\_OFFSET

30550	AXCONF_ASSIGN_MASTER_CHAN	A01, A06, A10	K5,TE3,B3,S3,K1,R1
-	Initial setting of channel for change of axis	BYTE	PowerOn
-			
-	-	0	0
-	-	10	7/2
-	-	-	M

**Description:** Definition of the channel to which the axis is assigned after Power ON.

Related to: MD20070 \$MC\_AXCONF\_MACHAX\_USED

## 1.3 NC machine data

30552	AUTO_GET_TYPE	EXP, A06, A10	K5,M3,TE6,P2,P5,2.4			
-	Automatic GET for get axis	BYTE	PowerOn			
-						
-	-	1	0	2	7/2	M

**Description:** 0 = No automatically created GET -> Alarm in response to incorrect programming.  
1 = GET is output when GET is generated automatically.  
2 = GETD is output when GET is generated automatically.

30554	AXCONF_ASSIGN_MASTER_NCU	A01, A06, A10	B3			
-	Initial setting which NCU creates setpoints for the axis	BYTE	PowerOn			
-						
-	-	0	0	16	7/2	M

**Description:** This machine data is evaluated only if the NCU is linked with other NCUs via the NCU link communication.  
Assignment of master NCU:  
If a machine axis is activated via MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB in several NCUs in an NCU cluster, then a MASTER NCU must be assigned to it. This NCU takes over the setpoint creation for the axis after the runup. For axes which are only activated in one NCU, the number of this NCU or 0 must be entered. Other entries initiate a runup interrupt.

30560	IS_LOCAL_LINK_AXIS	EXP, A01	B3			
-	Axis is a local link axis	BOOLEAN	PowerOn			
-						
-	-	FALSE	-	-	7/2	M

**Description:** An axis for which this MD is set to 1 is not addressed by the local NCU at runup. The associated drive is put into operation.  
The axis is traversed by another NCU. The evaluation is made only if link communication exists.  
Not relevant for:  
Systems without link modules  
Related to:  
MD18780 \$MN\_MM\_NCU\_LINK\_MASK

30600	FIX_POINT_POS	A03, A10	K1,W3			
mm, degrees	Fixed-value positions of axis with G75	DOUBLE	PowerOn			
-						
-	4	0.0, 0.0, 0.0, 0.0	-	-	7/2	M

**Description:** The fixed-point positions (4 max.) for each axis which can be approached when G75 is programmed or via JOG are entered in these machine data.  
References:  
/PA/, "Programming Guide: Fundamentals"

30610	NUM_FIX_POINT_POS	A03, A10	K1			
-	Number of fixed-value positions of an axis	DWORD	PowerOn			
-						
-	-	0	0	4	7/2	M

**Description:** Number of fixed point positions set, i.e. the number of valid entries in MD30600 \$MA\_FIX\_POINT\_POS.

For G75, two (2) fixed point positions are assumed in MD30600  
 \$MA\_FIX\_POINT\_POS for reasons of compatibility, even if '0' has been entered  
 in this machine data.

30800	WORKAREA_CHECK_TYPE	-	A3
-	Type of check of working area limitations.	BOOLEAN	NEW CONF
CTEQ			
-	-	FALSE	-
			7/2
			M

**Description:** With this machine data you can specify whether only the working area limitations of traversing axes are to be checked (0)  
 or whether the stationary axes in a traversing block are also to be checked (1).  
 The value 0 corresponds to the behavior up to SW5.

31000	ENC_IS_LINEAR	A02, A11, -	G2
-	Linear scale	BOOLEAN	PowerOn
-			
-	2	FALSE, FALSE	-
			7/2
			M

**Description:** MD = 1: Encoder for position actual-value acquisition is linear (linear scale).  
 MD = 0: Encoder for position actual-value acquisition is rotary.  
 The index [n] of the machine data has the following coding:  
 [encoder no.]: 0 or 1

31010	ENC_GRID_POINT_DIST	A02, A11, -	G2
mm	Division period for linear scales	DOUBLE	PowerOn
-			
-	2	0.01, 0.01	-
			7/2
			M

**Description:** For linear measuring system only:  
 The distance between the reference marks on the linear scale must be entered in this MD.  
 Index [n] of the machine data has the following coding:  
 [encoder no.]: 0 or 1

31020	ENC_RESOL	A02, A11, -	G2,R1
-	Encoder lines per revolution	DWORD	PowerOn
-			
-	2	2048, 2048, 2048, 2048, 2048, 2048...	1
			-
			7/2
			M

**Description:** For rotary measuring system only:  
 The number of encoder lines per encoder revolution must be entered in this MD.  
 Index [n] of the machine data has the following coding:  
 [encoder no.]: 0 or 1

31025	ENC_PULSE_MULT	EXP, A01, A02	-
-	Encoder multiplication (high-resolution)	DWORD	PowerOn
-			
-	2	2048, 2048, 2048, 2048, 2048, 2048...	-
			-
			7/2
			M

**Description:** For PROFIdrive only:

## 1.3 NC machine data

This MD describes the measuring system multiplication on PROFIBUS/PROFINET. Default value 2048 means: changing by just one encoder line can be seen in bit11 of the actual PROFIdrive value XIST1, that is, the actual encoder value is multiplied by 2 to the power of 11= 2048.

31030	LEADSCREW_PITCH	A02, A11, -	G2,A3
mm	Pitch of leadscrew	DOUBLE	PowerOn
-			
-	-	10.0	-
-	-	-	-
-	-	7/2	M

**Description:** The ball screw lead must be entered in the MD (see data sheet: mm/rev or inch/rev).  
Special meaning for hydraulic linear drives:  
If a hydraulic linear drive (HLA) is configured as rotary axis, it must be specified in this MD, which drive feedrate in mm corresponds to a programmed revolution (360 degrees).

31040	ENC_IS_DIRECT	A02, A11, -	G2,S1
-	Direct measuring system (no compilation to load position)	BOOLEAN	PowerOn
-			
-	2	FALSE, FALSE	-
-	-	-	-
-	-	7/2	M

**Description:** MD = 1:  
Encoder for actual position value sensing is attached directly to the machine (without an intermediate gear unit).  
MD = 0:  
Encoder for actual position value sensing is attached to the motor (MD31060 \$MA\_DRIVE\_AX\_RATIO\_NUMERA and MD31050 \$MA\_DRIVE\_AX\_RATIO\_DENOM are included in the encoder valuation).  
The index[n] of the machine data has the following coding:  
[encoder no.]: 0 or 1  
Special cases:  
An incorrect entry may result in an incorrect encoder resolution, as, for example, the gear ratios would be calculated incorrectly.

31044	ENC_IS_DIRECT2	A02, -	G2,S1
-	Encoder mounted on the additional gearbox	BOOLEAN	NEW CONF
-			
-	2	FALSE, FALSE	-
-	-	-	-
-	-	7/2	M

**Description:** When using a load intermediate gearbox (for example for rotating tools, compare MD31066 \$MA\_DRIVE\_AX\_RATIO2\_NUMERA and MD31064 \$MA\_DRIVE\_AX\_RATIO2\_DENOM), the encoder installation location can be defined as "on the output" of this load intermediate gearbox:  
Encoder installation "on the output of the load intermediate gearbox" is configured by MD31040 \$MA\_ENC\_IS\_DIRECT=1 and MD31044 \$MA\_ENC\_IS\_DIRECT2=1 at the same time.  
Encoder installation "on the input of the load intermediate gearbox" is configured by MD31040 \$MA\_ENC\_IS\_DIRECT=1 together with MD31044 \$MA\_ENC\_IS\_DIRECT2=0.  
A parameterization alarm will be output if MD31044 \$MA\_ENC\_IS\_DIRECT2=1 is set without MD31040 \$MA\_ENC\_IS\_DIRECT=1 (this combination has not been defined).



31050	DRIVE_AX_RATIO_DENOM	A02, A11, -	A2,A3,G2,S1,V1
-	Denominator load gearbox	DWORD	PowerOn
-			
-	6	1, 1, 1, 1, 1, 1	1
		2147000000	7/2
			M

**Description:** The load gearbox denominator is entered in this MD.  
The index [n] of the machine data has the following coding:  
[control parameter set no.]: 0-5

31060	DRIVE_AX_RATIO_NUMERA	A02, A11, -	A2,A3,G2,S1,V1
-	Numerator load gearbox	DWORD	PowerOn
-			
-	6	1, 1, 1, 1, 1, 1	-2147000000
		2147000000	7/2
			M

**Description:** The load gearbox numerator is entered in this MD.  
The index [n] of the machine data has the following coding:  
[control parameter set no.]: 0-5

31064	DRIVE_AX_RATIO2_DENOM	A02, -	G2,S1
-	Denominator additional gearbox	DWORD	NEW CONF
-			
-	-	1	1
		2147000000	7/2
			M

**Description:** Intermediate gearbox denominator  
This MD together with MD31066 \$MA\_DRIVE\_AX\_RATIO2\_NUMERA defines an intermediate gearbox that acts as a multiplier to the motor/load gearbox (described by MD31060 \$MA\_DRIVE\_AX\_RATIO\_NUMERA and MD31050 \$MA\_DRIVE\_AX\_RATIO\_DENOM). The load intermediate gearbox is inactive with the default values 1:1. Please consider MD31044 \$MA\_ENC\_IS\_DIRECT2 for encoder installation.  
When the Safety Integrated functionality (see MD36901 \$MA\_SAFE\_FUNCTION\_ENABLE) is active, the intermediate gearbox can be used, if

- the effectively active gear ratio from the motor to the tool is considered in the safety-relevant machine data and if
- the safety-relevant supplementary conditions for gear ratios are considered.

For more detailed information see the Safety Integrated Description of Functions.

31066	DRIVE_AX_RATIO2_NUMERA	A02, -	G2,S1
-	Numerator additional gearbox	DWORD	NEW CONF
-			
-	-	1	-2147000000
		2147000000	7/2
			M

**Description:** Intermediate gearbox numerator  
Related to:  
MD31064 \$MA\_DRIVE\_AX\_RATIO2\_DENOM

31070	DRIVE_ENC_RATIO_DENOM	A02, A11, -	A3,G2,S1
-	Denominator measuring gearbox	DWORD	PowerOn
-			
-	2	1, 1	1
		2147000000	7/2
			M

**Description:** The measuring gearbox denominator is entered in this MD.

## 1.3 NC machine data

The index [n] of the machine data has the following coding:  
[encoder no.]: 0 or 1

31080	DRIVE_ENC_RATIO_NUMERA	A02, A11, -	A3, G2, S1
-	Numerator measuring gearbox	DWORD	PowerOn
-			
-	2	1, 1	1
		2147000000	7/2
			M

**Description:** The measuring gearbox numerator is entered in this MD.  
The index [n] of the machine data has the following coding:  
[encoder no.]: 0 or 1

31090	JOG_INCR_WEIGHT	A01, A12	H1, G2
mm, degrees	Evaluation of an increment with INC/handwheel	DOUBLE	Reset
CTEQ			
-	2	0.001, 0.00254	-
		-	7/2
			M

**Description:** The value entered in this MD defines the path of an increment which applies when an axis is traversed with the JOG keys in incremental mode or with the handwheel.

The path traveled by the axis on each increment each time the traversing key is pressed or for each handwheel detent position is defined by the following parameters:

- MD31090 \$MA\_JOG\_INCR\_WEIGHT  
(Weighting of an increment of a machine axis for INC/handwheel)

- Selected increment size (INC1, ..., INCvar)

The possible increment stages are defined globally for all axes in MD11330 \$MN\_JOG\_INCR\_SIZE\_TAB [n] and in SD41010 \$SN\_JOG\_VAR\_INCR\_SIZE.

Entering a negative value reverses the direction of evaluation of the traverse keys and the handwheel rotation.

Related to:

MD11330 \$MN\_JOG\_INCR\_SIZE\_TAB

SD41010 \$SN\_JOG\_VAR\_INCR\_SIZE

31092	JOG_INCR_WEIGHT_TRAFO	A01, A12	H1, G2
mm, degrees	Evaluation of an increment for INC/handwheel for active transformation	DOUBLE	Reset
CTEQ			
-	2	0.0, 0.0	-
		-	7/2
			M

**Description:** The input value is used to define the distance of an increment which, when traversing an axis during active transformation using the JOG keys, is valid for the incremental dimension or via handwheel.

The distance, through which the axis traverses when executing the incremental dimension with transformation active, depending on the traversing key actuated or handwheel grid position, is defined by the following parameters:

- MD31092 \$MA\_JOG\_INCR\_WEIGHT\_TRAFO  
(Evaluating an increment of a machine axis for INC/handwheel)

- selected increment size (INC1, ..., INCvar)

The possible increment steps are globally defined for all axes in MD11330 \$MN\_JOG\_INCR\_SIZE\_TAB [n] or in SD41010 \$SN\_JOG\_VAR\_INCR\_SIZE.

Entering a negative value reverses the direction evaluation of the traversing keys and/or the handwheel direction of rotation.

The set value is only effective, if this is > 0 ist. For values of zero, then MD31090 \$MA\_JOG\_INCR\_WEIGHT is effective

Corresponds with:

MD11330 \$MN\_JOG\_INCR\_SIZE\_TAB

MD31090 \$MA\_JOG\_INCR\_WEIGHT

SD41010 \$SN\_JOG\_VAR\_INCR\_SIZE

31122	BERO_DELAY_TIME_PLUS	A02, A06	S1,R1
s	BERO delay time Plus	DOUBLE	NEW CONF
-			
-	2	0.000110, 0.000110	- - 7/2 M

**Description:**

This machine data in combination with the setting in MD34200 \$MA\_ENC\_REFP\_MODE (referencing mode) = 7 causes a signal runtime compensation in the positive direction of movement at a position determined by a BERO (zero mark).

The typical total delay time of the BERO message path for overtravel in the positive direction of movement is entered.

This time includes:

- the BERO edge delay time
- the time for digitizing the signal
- the time for processing the measured value, etc.

The periods of time depend on the hardware used. The default value is typical for SIEMENS products. Adjustment by the customer is only required in exceptional cases.

Input of the minimum value "0.0" deactivates the compensation (only active in combination with MD34200 \$MA\_ENC\_REFP\_MODE = 7).

The machine data is available for all encoders.

Related to:

MD34200 \$MA\_ENC\_REFP\_MODE (referencing mode)

MD34040 \$MA\_REFP\_VELO\_SEARCH\_MARKER[n]

(reference point creep velocity [Enc. no.]

31123	BERO_DELAY_TIME_MINUS	A02, A06	S1,R1
s	BERO delay time minus	DOUBLE	NEW CONF
-			
-	2	0.000078, 0.000078	- - 7/2 M

**Description:**

This machine data in combination with the setting in MD34200 \$MA\_ENC\_REFP\_MODE (referencing mode) = 7 causes a signal runtime compensation in the negative direction of movement at a position determined by a BERO (zero mark).

The typical total delay time of the BERO message path for overtravel in the negative direction of movement is entered.

The time includes:

- the BERO edge delay time
- the time for digitizing the signal
- the time for processing the measured value, etc.

The periods of time depend on the hardware used. The default value is typical for SIEMENS products. Adjustment by the customer is only required in exceptional cases.

Input of the minimum value "0.0" deactivates the compensation (only active in combination with MD34200 \$MA\_ENC\_REFP\_MODE = 7).

1.3 NC machine data

The machine data is available for all encoders.

Related to:

MD34200 \$MA\_ENC\_REFP\_MODE (referencing mode)

MD34040 \$MA\_REFP\_VELO\_SEARCH\_MARKER[n]

(creep velocity [Enc. no.] )

31200	SCALING_FACTOR_G70_G71	EXP, A01	G2
-	Factor for converting values while G70/G71 is active	DOUBLE	PowerOn
CTEQ			
-	-	25.4	1.e-9
-	-	-	7/2 M

**Description:**

The inch/metric conversion factor by which the programmed geometry of an axis (position, polynomial coefficients, radius for circular programming,...) is multiplied when the programmed value for G code group G70/G71 differs from the initial setting value (set in MD20150 \$MC\_GCODE\_RESET\_VALUES[n]) is entered in this MD.

The factor can be set for each axis individually, so that pure positioning axes are not dependent on G70/G71. The factors within the three geometry axes should not be different.

The data influenced by G70/G71 are described in the Programming Guide.

Related to:

MD20150 \$MC\_GCODE\_RESET\_VALUES[n] (G group initial setting).

31600	TRACE_VDI_AX	EXP, N06	-
-	Trace-specification for axial VDI signals	BOOLEAN	PowerOn
NBUP			
-	-	FALSE	-
-	-	-	2/2 M

**Description:**

This machine data determines whether the axial VDI signals for this axis are recorded in the NCSC trace (according to MD18794 \$MN\_MM\_TRACE\_VDI\_SIGNAL).

32000	MAX_AX_VELO	A11, A04	M3,TE1,TE3,W6,Z3,H1,K3,M1,P2,A3,B2,G2,H2,S1,V1,W1
mm/min, rev/min	maximum axis velocity	DOUBLE	NEW CONF
CTEQ			
-	-	10000., 10000., 10000., 10000., 10000....	-
-	-	-	7/2 M

**Description:**

Maximum velocity at which the axis can permanently travel. The value limits both the positive and the negative axis velocity. The axis traverses at this velocity, if rapid traverse has been programmed.

Depending on the MD30300 \$MA\_IS\_ROT\_AX, the maximum rotary or linear axis velocity has to be entered.

In the machine data, the dynamic behavior of the machine and drive and the limit frequency of the actual value acquisition must be taken into account.

32010	JOG_VELO_RAPID	A11, A04, -	H1
mm/min, rev/min	Rapid traverse in jog mode	DOUBLE	Reset
CTEQ			
-	-	10000., 10000., 10000., 10000., 10000....	-
			7/2
			M

**Description:** The axis velocity entered applies when the rapid traverse override key is pressed in JOG mode and when the axial feedrate override is set to 100%. The value entered must not exceed the maximum permissible axis velocity (MD32000 \$MA\_MAX\_AX\_VELO). This machine data is not used for the programmed rapid traverse G0. MD irrelevant to:  
Operating modes AUTOMATIC and MDI  
Related to:  
MD32000 \$MA\_MAX\_AX\_VELO (maximum axis velocity)  
MD32040 \$MA\_JOG\_REV\_VELO\_RAPID (revolutional feedrate for JOG with rapid traverse override)  
NC/PLC interface signal DB21-30 DBX12.5, DBX16.5, DBX20.5 (Rapid traverse override)  
NC/PLC interface signal DB21-30 DBB4 (Feedrate override A-H)

32020	JOG_VELO	A11, A04, -	H1
mm/min, rev/min	Jog axis velocity	DOUBLE	Reset
CTEQ			
-	-	2000., 2000., 2000., 2000., 2000., 2000....	-
			7/2
			M

**Description:** The velocity entered applies to traversing in JOG mode when the axial feedrate override switch position is 100%. This velocity is only used when general SD41110 \$SN\_JOG\_SET\_VELO = 0 for linear axes, and linear feedrate is selected (SD41100 \$SN\_JOG\_REV\_IS\_ACTIVE = 0) or SD41130 \$SN\_JOG\_ROT\_AX\_SET\_VELO = 0 for rotary axes. If this is the case, the axis velocity is active for

- continuous jogging
- incremental jogging (INC1, ... INCvar)
- handwheel jogging

The value entered must not exceed the maximum permissible axis velocity (MD32000 \$MA\_MAX\_AX\_VELO). If DRF is active, the axis velocity for JOG must be reduced with MD32090 \$MA\_HANDWH\_VELO\_OVERLAY\_FACTOR. Spindles in JOG mode:  
This machine data can also be used to define the JOG mode speed for specific spindles (if SD41200 \$SN\_JOG\_SPIND\_SET\_VELO = 0). However, the speed can be modified with the spindle override switch.  
Related to:  
MD32000 \$MA\_MAX\_AX\_VELO (maximum axis velocity)  
MD32050 \$MA\_JOG\_REV\_VELO (revolutional feedrate for JOG)  
MD32090 \$MA\_HANDWH\_VELO\_OVERLAY\_FACTOR (ratio of JOG velocity to handwheel velocity (DRF))  
SD41110 \$SN\_JOG\_SET\_VELO (JOG velocity for G94)

1.3 NC machine data

SD41130 \$SN\_JOG\_ROT\_AX\_SET\_VELO (JOG velocity for rotary axes)  
 NC/PLC interface signal DB21-30 DBB4 (Feedrate override A-H)

32040	JOG_REV_VELO_RAPID	A11, A04	H1,P2,R2,T1,V1,Z1
mm/rev	Revolutional feedrate in JOG with rapid traverse override	DOUBLE	Reset
CTEQ			
-	-	2.5, 2.5, 2.5, 2.5, 2.5, 2.5, 2.5, 2.5...	-
			7/2 M

**Description:** The value entered defines the revolutional feedrate of the axis in JOG mode with rapid traverse override in relation to the revolutions of the master spindle. This feedrate is active when SD41100 \$SN\_JOG\_REV\_IS\_ACTIVE = 1. (Revolutional feedrate active with JOG)

MD irrelevant for:  
 SD41100 \$SN\_JOG\_REV\_IS\_ACTIVE = "0"

Related to:  
 SD41100 \$SN\_JOG\_REV\_IS\_ACTIVE (revolutional feedrate with JOG active)  
 MD32050 \$MA\_JOG\_REV\_VELO (revolutional feedrate with JOG)

32050	JOG_REV_VELO	A11, A04	H1,P2,R2,T1,V1,Z1
mm/rev	Revolutional feedrate in JOG	DOUBLE	Reset
CTEQ			
-	-	0.5, 0.5, 0.5, 0.5, 0.5, 0.5, 0.5, 0.5...	-
			7/2 M

**Description:** The value entered defines the revolutional feedrate of the axis in JOG mode in relation to the revolutions of the master spindle.

This feedrate is active when SD41100 \$SN\_JOG\_REV\_IS\_ACTIVE= 1 (revolutional feedrate active with JOG).

MD irrelevant for:  
 Linear feedrate; i.e. SD41100 \$SN\_JOG\_REV\_IS\_ACTIVE = 0

Related to:  
 SD41100 \$SN\_JOG\_REV\_IS\_ACTIVE  
 (revolutional feedrate for JOG active)  
 MD32040 \$MA\_JOG\_REV\_VELO\_RAPID  
 (JOG revolutional feedrate with rapid traverse override)

32060	POS_AX_VELO	A12, A04	H1,P2,K1,V1,2.4,6.2
mm/min, rev/min	Initial setting for positioning axis velocity	DOUBLE	Reset
CTEQ			
-	-	10000., 10000., 10000., 10000., 10000....	-
			7/2 M

**Description:** If a positioning axis is programmed in the part program without specifying the axis-specific feedrate, the feedrate entered in MD32060 \$MA\_POS\_AX\_VELO is automatically used for this axis. The feedrate in MD32060 \$MA\_POS\_AX\_VELO applies until an axis-specific feedrate is programmed in the part program for this positioning axis.

MD irrelevant for:  
 MD32060 \$MA\_POS\_AX\_VELO is irrelevant for all axis types other than positioning axis.

Special cases:

If a ZERO velocity is entered in MD32060 \$MA\_POS\_AX\_VELO, the positioning axis does not traverse if it is programmed without feed. If a velocity is entered in MD32060 \$MA\_POS\_AX\_VELO that is higher than the maximum velocity of the axis (MD32000 \$MA\_MAX\_AX\_VELO), the velocity is automatically restricted to the maximum rate.

32070	CORR_VELO	A04	2,4,6,2
%	Axis velocity for override	DOUBLE	Reset
CTEQ			
-	-	50.0	-
			-
			7/2
			M

**Description:** Limitation of axis velocity for handwheel override, external work offset, continuous dressing, distance control \$AA\_OFF via synchronized actions related to the JOG velocity

MD32020 \$MA\_JOG\_VELO,  
MD32010 \$MA\_JOG\_VELO\_RAPID,  
MD32050 \$MA\_JOG\_REV\_VELO,  
MD32040 \$MA\_JOG\_REV\_VELO\_RAPID.

The maximum permissible velocity is the maximum velocity in MD32000 \$MA\_MAX\_AX\_VELO. Velocity is limited to this value.

The conversion into linear or rotary axis velocity is made according to MD30300 \$MA\_IS\_ROT\_AX.

32074	FRAME_OR_CORRPOS_NOTALLOWED	A01	K5,K2,2,4,6,2
-	Frame or tool length compensation are not permissible	DWORD	PowerOn
CTEQ			
-	-	0	0
			0xFFF
			7/2
			M

**Description:** This machine data is used to define the effectiveness of the frames and tool length compensations for indexing axes, PLC axes and command axes started from synchronized actions.

Bit assignment:

Bit 0 = 0:  
Programmable work offset (TRANS) allowed for indexing axis

Bit 0 = 1:  
Programmable work offset (TRANS) forbidden for indexing axis

Bit 1 = 0:  
Scale modification (SCALE) allowed for indexing axis

Bit 1 = 1:  
Scale modification (SCALE) forbidden for indexing axis

Bit 2 = 0:  
Direction change (MIRROR) allowed for indexing axis

Bit 2 = 1:  
Direction change (MIRROR) forbidden for indexing axis

Bit 3 = 0:  
DRF offset allowed for axis

Bit 3 = 1:  
DRF offset forbidden for axis

Bit 4 = 0:  
External work offset allowed for axis

Bit 4 = 1:  
External work offset forbidden for axis

Bit 5 = 0:  
Online tool compensation allowed for axis

Bit 5 = 1:  
Online tool compensation forbidden for axis

Bit 6 = 0:  
Synchronized action offset allowed for axis

Bit 6 = 1:  
Synchronized action offset forbidden for axis

Bit 7 = 0:  
Compile cycles offset allowed for axis

Bit 7 = 1:  
Compile cycles offset forbidden for axis

Bit 8 = 0:  
Axial frames and tool length compensation are NOT considered for PLC axes  
(bit evaluation so for compatibility reasons)

Bit 8 = 1:  
Axial frames are considered for PLC axes, and the tool length compensation is  
considered for PLC axes which are geometry axes.

Bit 9 = 0:  
Axial frames are considered for command axes, and the tool length compensa-  
tion is considered for command axes which are geometry axes.

Bit 9 = 1:  
Axial frames and tool length compensation are NOT considered for command axes

Bit 10 = 0:  
In JOG mode, too, traversing of a geometry axis as a PLC or command axis is  
NOT allowed with active rotation.

Bit 10 = 1:  
In JOG mode, traversing of a geometry axis as a PLC axis or command axis  
(static synchronized action ) is allowed with active rotation (ROT frame).  
Traversing must be terminated prior to returning to AUTOMATIC mode (neutral  
axis state), as otherwise alarm16908 would be output when the mode is  
changed.

Bit 11 = 0:  
In the 'Program interrupted' status, repositioning to the interrupt position  
(AUTO - JOG) takes place when changing from JOG to AUTO.

Bit 11 = 1:  
Prerequisite: Bit 10 == 1 (PLC or command axis motion with active rotation in  
JOG mode).  
In the 'Program interrupted' status, the end point of the PLC or command axis  
motion is taken over when changing from JOG to AUTOMATIC and the geometry  
axes are positioned according to the rotation



32075	MAPPED_FRAME	A01	-
-	Mapping an axial frame	STRING	PowerOn
-			
-	-	NO_AXIS	-
-	-	-	-
-	-	7/2	M

**Description:** This machine data can be used to map an axial frame onto an axial frame of another axis. This means that the description of a frame in the data management can simultaneously describe the frame of another axis with the same values. Selected data management frames can be enabled for the mapping in \$MN\_MAPPED\_FRAME\_MASK.

32080	HANDWH_MAX_INCR_SIZE	A05, A10	H1
mm, degrees	Limitation of selected increment	DOUBLE	Reset
CTEQ			
-	-	0.0	-
-	-	-	-
-	-	7/2	M

**Description:** > 0: Limitation of size of selected increment \$MN\_JOG\_INCR\_SIZE <Increment/VDI signal> or SD41010 \$SN\_JOG\_VAR\_INCR\_SIZE for the associated machine axis  
0: No limitation

32082	HANDWH_MAX_INCR_VELO_SIZE	A05, A10, A04	-
mm/min, rev/min	Limitation for velocity override	DOUBLE	Reset
CTEQ			
-	-	500.0, 500.0, 500.0, 500.0, 500.0, 500.0...	-
-	-	-	-
-	-	7/2	M

**Description:** For the velocity override of positioning axes:  
>0: Limitation of size of selected increment \$MN\_JOG\_INCR\_SIZE <Increment/VDI signal> 0 or SD41010 \$SN\_JOG\_VAR\_INCR\_SIZE for the associated machine axis  
0: No limitation

32084	HANDWH_STOP_COND	EXP, A10	H1
-	Handwheel travel behavior	DWORD	Reset
CTEQ			
-	-	0xFF	0
-	-	0x7FF	7/2
-	-		M

**Description:** Definition of the response of the handwheel travel to axis-specific VDI interface signals or a context-sensitive interpolator stop:  
Bit = 0:  
Interruption or collection of the distances preset via the handwheel.  
Bit = 1:  
Cancellation of the traversing motion or no collection.  
Bit assignment:  
Bit 0: feedrate override  
Bit 1: spindle speed override  
Bit 2: feedrate stop/spindle stop or context-sensitive interpolator stop  
Bit 3: clamping procedure running (= 0 no effect)  
Bit 4: servo enable  
Bit 5: pulse enable

For machine axis:

Bit 6 = 0

For handwheel travel, the maximum velocity at which the relevant machine axis can be traversed is the feedrate set in MD32020 \$MA\_JOG\_VELO.

Bit 6 = 1

For handwheel travel, the maximum velocity at which the relevant machine axis can be traversed is the feedrate set in MD32000 \$MA\_MAX\_AX\_VELO.

Bit 7 = 0

The override is active in handwheel travel.

Bit 7 = 1

The override is always assumed to be 100% for handwheel travel, regardless of how the override switch is set.

Exception: override 0% is always active.

Bit 8 = 0

The override is active with DRF

Bit 8 = 1

The override is always assumed to be 100% for DRF, regardless of how the override switch is set.

Exception: override 0% is always active.

Bit 9 = 0

For handwheel travel, the maximum possible velocity with revolutional feedrate is

- with the feedrate in SD41120 \$SN\_JOG\_REV\_SET\_VELO or

- the feedrate in MD32050 \$MA\_JOG\_REV\_VELO or

- in the case of rapid traverse with MD32040 \$MA\_JOG\_REV\_VELO\_RAPID

of the relevant machine axis calculated with the spindle or rotary axis feedrate.

Bit 9 = 1

For handwheel travel, the maximum possible velocity is with the revolutional feedrate in MD32000 \$MA\_MAX\_AX\_VELO of the relevant machine axis. (see also bit 6)

Bit 10 = 0

For overlaid motions, \$AA\_OVR is not active.

Bit 10 = 1

For overlaid motions (DRF, \$AA\_OFF, external work offset, online tool offset), the override \$AA\_OVR settable via synchronized actions is active.

Bit 11 = 0

With the VDI interface signal "driveReady" (= 0) missing, paths defined by the handwheel are not collected, but a traversing request is displayed. Start of a continuous JOG motion in continuous mode (\$SN\_JOG\_CONT\_MODE\_LEVELTRIGGRD 41050 = 0) or an incremental JOG motion in continuous mode

(\$MN\_JOG\_INC\_MODE\_LEVELTRIGGRD 11300 = 0) is displayed as a traversing

request. With "driveReady" = 1, however, the tool is not traversed, but the procedure is canceled and must be started again.

Bit 11 = 1

With the VDI interface "driveReady" missing, the paths defined by the handwheel are collected. Start of a continuous JOG motion in continuous mode (\$SN\_JOG\_CONT\_MODE\_LEVELTRIGGRD 41050 = 0) or an incremental JOG motion in continuous mode (\$MN\_JOG\_INC\_MODE\_LEVELTRIGGRD 11300 = 0) is displayed and saved as a traversing request. With "driveReady" = 1 the traversing motion is started.

|

32090	HANDWH_VELO_OVERLAY_FACTOR	A10, A04	H1
-	Ratio of JOG velocity to handwheel velocity (DRF)	DOUBLE	Reset
CTEQ			
-	-	0.5	-
			7/2
			M

**Description:** The velocity active with the handwheel in DRF can be reduced from the JOG velocity with this machine data.

The following applies to linear axes for the velocity active with DRF:

$$v_{DRF} = SD41110 \$SN\_JOG\_SET\_VELO * MD32090 \$MA\_HANDWH\_VELO\_OVERLAY\_FACTOR$$

or when  $SD41110 \$SN\_JOG\_SET\_VELO = 0$ :

$$v_{DRF} = MD32020 \$MA\_JOG\_VELO * MD32090 \$MA\_HANDWH\_VELO\_OVERLAY\_FACTOR$$

The velocity setting in  $SD41130 \$SN\_JOG\_ROT\_AX\_SET\_VELO$  applies for DRF on rotary axes instead of the value in  $SD41110 \$SN\_JOG\_SET\_VELO$ .

MD irrelevant for:

JOG handwheel

Related to:

$MD32020 \$MA\_JOG\_VELO$  (JOG axis velocity)

$SD41110 \$SN\_JOG\_SET\_VELO$  (JOG velocity for G94)

$SD41130 \$SN\_JOG\_ROT\_AX\_SET\_VELO$  (JOG velocity for rotary axes)

32100	AX_MOTION_DIR	A07, A03, A11,	G1,TE3,G2
-	Traversing direction (not control direction)	DWORD	PowerOn
-			
-	-	1	-1
		1	7/2
			M

**Description:** The direction of movement of the machine can be reversed with this MD. The control direction is, however, not destroyed; i.e. closed-loop control remains stable.

-1: Direction reversal

0, 1: No direction reversal

Note:

In the case of SINAMICS drives, we recommend that the direction of motion is reversed in the drive (see P1821).

32110	ENC_FEEDBACK_POL	A07, A02, A11	G2
-	Sign actual value (control direction)	DWORD	PowerOn
-			
-	2	1, 1	-1
		1	7/2
			M

**Description:** The evaluation direction of the shaft encoder signals is entered in the MD.

-1: Actual value reversal

0, 1: No actual value reversal

The index[n] of the machine data is encoded as follows:

[Encoder no.]: 0 or 1

Special cases:

The axis can run off if an incorrect control direction is entered.

Depending on the setting of the corresponding limit values, one of the following alarms is displayed:

Alarm 25040 "Standstill monitoring"

Alarm 25050 "Contour monitoring"

Alarm 25060 "Speed setpoint limitation"

If an uncontrolled setpoint step change occurs on connection of a drive, the control direction might be incorrect.

Note:

In the case of SINAMICS drives, we recommend that the direction of motion is reversed in the drive (see P410).

This is obligatory if you are using DSC (see also MD32640 \$MA\_STIFFNESS\_CONTROL\_ENABLE).

32200	POSCTRL_GAIN			A07, A11	G1,TE1,TE9,K3,S3,A2,A3,D1, G2,S1,V1	
1000/min	Servo gain factor			DOUBLE	NEW CONF	
CTEQ						
-	6	16.66666667, 16.66666667, 16.66666667, 16.66666667, 16.66666667...	0	2000.	7/2	M

**Description:**

Position controller gain, or servo gain factor.

The input/output unit for the user is [ (m/min)/mm].

I.e. MD32200 \$MA\_POSCTRL\_GAIN[n] = 1 corresponds to a 1 mm following error at V = 1m/min.

The following machine data have default settings for adapting the standard selected input/output unit to the internal unit [rev/s].

- MD10230 \$MN\_SCALING\_FACTORS\_USER\_DEF[9] = 16.666667S
- MD10220 \$MN\_SCALING\_USER\_DEF\_MASK = 0x200; (bit no 9 as hex value).

If the value "0" is entered the position controller is opened.

When entering the servo gain factor it is important to take into account that the gain factor of the whole position control loop is still dependent on other parameters of the controlled system. A distinction should be made between a "desired servo gain factor" (MD32200 \$MA\_POSCTRL\_GAIN) and an "actual servo gain factor" (produced by the machine). Only when all the parameters of the control loop are matched will these servo gain factors be the same.

Other factors are:

- Speed setpoint adjustment (MD32260 \$MA\_RATED\_VELO, MD32250 \$MA\_RATED\_OUTVAL)  
or automatic speed setpoint interface adjustment (with MD32250 \$MA\_RATED\_OUTVAL = 0 etc.)
- Correct actual value recording of the position encoder (no. of encoder marks, high resolution, encoder mounting location, gear etc.)
- Correct actual speed recording on the drive (standardization, possibly tacho compensation, tacho generator)

Note:

Axes which interpolate together and are to perform a machining operation, must either have the same gain setting (i.e. have the identical following error = 45° slope at the same velocity) or they must be matched via MD32910 \$MA\_DYN\_MATCH\_TIME.

The actual servo gain factor can be checked by means of the following error (in the service display).

In the case of analog axes, a drift compensation must be performed prior to the control.

The index [n] of the machine data has the following coding:

[control parameter set no.]: 0-5

32210	POSCTRL_INTEGR_TIME	A07	G2
s	Position controller integral time	DOUBLE	NEW CONF
-			
-	-	1.0	0
-	-	10000.0	7/2
-	-		M

**Description:** Position controller integral action time for the integral component in s  
The MD is only active if MD32220 \$MA\_POSCTRL\_INTEGR\_ENABLE = TRUE.  
A value of the MD less than 0.001 disables the integral component of the PI controller. The controller is then a P controller, which works with disabled manipulated variable clamping (see also MD32230 \$MA\_POSCTRL\_CONFIG, bit0 = 1).

32220	POSCTRL_INTEGR_ENABLE	A07	G2
-	Enable integral component position controller	BOOLEAN	PowerOn
-			
-	-	FALSE	-
-	-		7/2
-	-		M

**Description:** Enable of the integral component position controller; the position controller is then a PI controller in which the manipulated variable clamping is disabled (s.a. MD32230 \$MA\_POSCTRL\_CONFIG, bit0 = 1).  
Position overshoots may occur if the integral component is used. For this reason, this functionality may only be used in special cases.

32230	POSCTRL_CONFIG	A07	TE1
-	Configuration of the position controller structure	BYTE	PowerOn
-			
-	-	0	0
-	-		17
-	-		7/2
-	-		M

**Description:** Configuration of the position controller structure:  
Bit0 = 1: Manipulated variable clamping inactive  
Bit4 = 1: Accelerated exact stop signal active

32250	RATED_OUTVAL	A01, A11	A3, D1, G2
%	Rated output voltage	DOUBLE	NEW CONF
CTEQ			
-	1	0.0	0.0
-	-	200	7/2
-	-		M

**Description:** a.)  
Scaling of the manipulated variable with analog drives:  
The value of the speed setpoint in percent is to be entered in this MD, in relation to the maximum speed setpoint at which the motor speed specified in MD32260 \$MA\_RATED\_VELO[n] is reached.  
Related to:  
MD32250 \$MA\_RATED\_OUTVAL[n] only makes sense in combination with MD32260 \$MA\_RATED\_VELO[n].  
Example:  
1. At a voltage of 5V, the drive reaches a speed of  
1875 rpm ==> RATED\_OUTVAL = 50%, RATED\_VELO = 11250 [degrees/s]  
2. At a voltage of 8V, the drive reaches a speed of  
3000 rpm ==> RATED\_OUTVAL = 80%, RATED\_VELO = 18000 [degrees/s]  
3. At a voltage of 1.5V, the drive reaches a speed of  
562.5 rpm ==> RATED\_OUTVAL = 15%, RATED\_VELO = 3375 [degrees/s]  
All three examples are possible for one and the same drive/converter. The ratio of the two values is decisive; it is the same in all three examples.

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MD32250 \$MA\_RATED\_OUTVAL and MD32260 \$MA\_RATED\_VELO describe physical characteristics of converter and drive; they can therefore only be determined by means of a measurement or commissioning instructions (converter, drive).

b.)

Scaling of the manipulated variable with digital PROFIdrive drives:

Default value "0" declares MD32250 \$MA\_RATED\_OUTVAL and MD32260 \$MA\_RATED\_VELO as invalid. Scaling of the manipulated variable is automatically determined and adjusted from the drive parameters instead.

Otherwise (MD32250 \$MA\_RATED\_OUTVAL unequal to zero), the scaling of the manipulated variable is not determined from the drive (for example non-Siemens PROFIdrive drives), but set with RATED\_VELO and RATED\_OUTVAL, even in the case of these, irrespective of the scaling active on the drive side. In this case, the following applies:

Scaling of the manipulated variable on the drive = RATED\_VELO / RATED\_OUTVAL

Further scalings from drive parameters, such as torque scaling, are not active if \$MA\_RATED\_OUTVAL is not equal to zero, the values based on it remain zero.

In the case of simultaneous operation of analog and PROFIdrive drives, the settings for the analog axes must be adjusted as described in a.).

32260	RATED_VELO			A01, A11	A3,D1,G2	
rev/min	Rated motor speed			DOUBLE	NEW CONF	
CTEQ						
-	1	3000.0	-	-	7/2	M

**Description:**

Only applies when:

MD32250 \$MA\_RATED\_OUTVAL is set greater than 0.

The drive speed (scaled on the drive) that is reached with the percentual speed setpoint specified in MD32250 \$MA\_RATED\_OUTVAL[n] must be entered in the MD.

Related to:

MD32260 \$MA\_RATED\_VELO[n] only makes sense in combination with MD32250 \$MA\_RATED\_OUTVAL[n].

32300	MAX_AX_ACCEL			A11, A04, -	M3,TE6,Z3,H1,K3,M1,A3,B1, B2,K1,V1,2,4	
m/s², rev/s²	maximum axis acceleration			DOUBLE	NEW CONF	
CTEQ						
-	5	1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0...	1.0e-6	-	7/2	M

**Description:**

Maximum acceleration, i.e. change in setpoint velocity, which is to act upon the axis. The value limits both positive and negative axis acceleration.

The maximum angular or linear axis acceleration must be entered dependent upon machine data MD30300 \$MA\_IS\_ROT\_AX.

In the case of linear interpolation of the axes in a grouping, the grouping is limited in such a way that no axis is overloaded. With regard to contour accuracy, the control dynamic behavior has to be taken into account.

Not relevant for error states that lead to quick stop.

Each field element corresponds to a G code in the 59th G code group.

Related to:

MD32210 \$MA\_MAX\_ACCEL\_OVL\_FACTOR  
MD32434 \$MA\_G00\_ACCEL\_FACTOR

MD32433 \$MA\_SOFT\_ACCEL\_FACTOR  
 MD20610 \$MC\_ADD\_MOVE\_ACCEL\_RESERVE  
 MD20602 \$MC\_CURV\_EFFECT\_ON\_PATH\_ACCEL

32301	JOG_MAX_ACCEL	A11, A04, -		-		
m/s <sup>2</sup> , rev/s <sup>2</sup>	Maximum acceleration in JOG mode	DOUBLE		NEW CONF		
CTEQ						
-	-	0.0	-	-	0/0	M

**Description:** MD32301 \$MA\_JOG\_MAX\_ACCEL is effective only in JOG mode.  
 It ensures that the acceleration set in the MD is not exceeded when the axis/spindle is in JOG mode.  
 MD32301 \$MA\_JOG\_MAX\_ACCEL = 0 disables the limit. The actual acceleration value of the axis/spindle is then effective.  
 Related to:  
 MD32300 \$MA\_MAX\_AX\_ACCEL (axis acceleration)  
 MD35200 \$MA\_GEAR\_STEP\_SPEEDCTRL\_ACCEL (acceleration of spindle in speed control mode)  
 MD35210 \$MA\_GEAR\_STEP\_POSCTRL\_ACCEL (acceleration of spindle in position control mode)  
 MD35212 \$MA\_GEAR\_STEP\_POSCTRL\_ACCEL2 (acceleration of spindle in position control mode, tapping)

32310	MAX_ACCEL_OVL_FACTOR	A04		B1		
-	Overload factor for axial velocity steps	DOUBLE		NEW CONF		
CTEQ						
-	5	1.2, 1.2, 1.2, 1.2, 1.2	-	-	7/7	M

**Description:** The overload factor limits the velocity jump of the machine axis on block transition. The value entered is related to the value of MD32300 \$MA\_MAX\_AX\_ACCEL (axis acceleration) and states by how much the maximum acceleration can be exceeded for one IPO cycle.  
 Related to:  
 MD32300 \$MA\_MAX\_AX\_ACCEL (axis acceleration)  
 MD10070 \$MN\_IPO\_SYSCLOCK\_TIME\_RATIO (interpolator clock)  
 Each field element corresponds to a G code in the 59th G group.

32320	DYN_LIMIT_RESET_MASK	A05, A06, A10, A04		-		
-	Reset behavior of dynamic response limitation.	DWORD		Reset		
CTEQ						
-	-	0	0	0x03	7/2	M

**Description:** MD32320 \$MA\_DYN\_LIMIT\_RESET\_MASK is used to set the reset response of functions limiting dynamic response for specific axes and groups.  
 The MD is bit-coded, bit 0 (LSB) and bit 1 are currently allocated.  
 Bit 0 = 0:  
 Programmed ACC, VELOLIM and JERKLIM are reset to 100% with channel reset/M30 if the channel-specific MD22410 \$MC\_F\_VALUES\_ACTIVE\_AFTER\_RESET is also zero.  
 For spindle mode, programmed ACC and VELOLIM are reset to 100% with channel reset/M30 if MD35040 \$MA\_SPIND\_ACTIVE\_AFTER\_RESET is zero and the channel-specific MD22400 \$MC\_S\_VALUES\_ACTIVE\_AFTER\_RESET is also zero.

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Bit 0 = 1:

Programmed ACC, VELOLIM and JERKLIM are retained beyond channel reset/M30.

Bit 1 = 0:

Programmed ACCLIMA, VELOLIMA and JERKLIMA are reset to 100% with channel reset/M30, if MD22410 \$MC\_F\_VALUES\_ACTIVE\_AFTER\_RESET is also zero.

Bit 1 = 1:

Programmed ACCLIMA, VELOLIMA and JERKLIMA are retained beyond channel reset/M30.

Notes:

In MD22410 \$MC\_F\_VALUES\_ACTIVE\_AFTER\_RESET, the reset responses of the dynamic instructions ACC, VELOLIM, JERKLIM, ACCLIMA, VELOLIMA and JERKLIMA are set channel specifically. If the MD is set, then the values are also retained.

For spindle mode, the values for ACC and VELOLIM are also retained if MD35040 \$MA\_SPIND\_ACTIVE\_AFTER\_RESET is not equal to zero or the channel-specific MD22400 \$MC\_S\_VALUES\_ACTIVE\_AFTER\_RESET is not equal to zero.

32400	AX_JERK_ENABLE	A07, A04, -	B2
-	Axial jerk limitation	BOOLEAN	NEW CONF
CTEQ			
-	-	FALSE	-
			7/2 M

**Description:**

Enables the function of an axial jerk limitation.

The limitation is set via a time constant; it is always active.

The limitation works independently of the limitations "path-related maximum jerk", "knee-shaped acceleration characteristic" and the axial jerk limitation of the axes that are operated in JOG mode or positioning axis mode.

Related to:

MD32410 \$MA\_AX\_JERK\_TIME (time constant for axial jerk limitation)

32402	AX_JERK_MODE	A07, A04	B2,G2,B3
-	Filter type for axial jerk limitation	BYTE	PowerOn
CTEQ			
-	-	1	1
			3
			7/2 M

**Description:**

Filter type for axial jerk limitation:

- 1: 2nd order filter (as in SW 1 through 4)
- 2: Moving averaging (SW 5 and higher)
- 3: Bandstop filter (SW 6 and higher)

Type 2 requires more computing time, but causes smaller contour errors for the same smoothing effect, or smoother movements at the same accuracy.

Type 2 is recommended; type 1 is set as a default value for reasons of compatibility.

The maximum jerk is set in the time constant MD32410 \$MA\_AX\_JERK\_TIME.

Recommended values for type 1:

Min. 0.03 s; max. 0.06s.

Recommended values for type 2:

Min. 1 position-control cycle; max. 16 position-control cycles

At a position-control cycle of 2ms, this corresponds to 0.002 to 0.032 seconds.

Type 3 requires the setting of MD32410 \$MA\_AX\_JERK\_TIME, MD32412 \$MA\_AX\_JERK\_FREQ and MD32414 \$MA\_AX\_JERK\_DAMP.



To parameterize a simple bandstop filter, we recommend setting MD32410 \$MA\_AX\_JERK\_TIME=0, which automatically sets "denominator frequency = numerator frequency = blocking frequency = MD32412 \$MA\_AX\_JERK\_FREQ".

However, MD32410 \$MA\_AX\_JERK\_TIME>0 is used to set a specific denominator frequency, which makes it possible to implement a bandstop filter with amplitude increase for frequencies beyond the blocking frequency.

MD32402 \$MA\_AX\_JERK\_MODE is only active if MD32400 \$MA\_AX\_JERK\_ENABLE has been set to 1.

Special cases, errors:

The machine data must be same for all axes of an axis container.

Related to:

MD32400 \$MA\_AX\_JERK\_ENABLE

MD32410 \$MA\_AX\_JERK\_TIME

and for type 3: MD32412 \$MA\_AX\_JERK\_FREQ and MD32414 \$MA\_AX\_JERK\_DAMP

32410	AX_JERK_TIME	A07, A04	G1,TE1,S3,B2,G2		
s	Time constant for axial jerk filter	DOUBLE	NEW CONF		
-					
-	-	0.001	-	-	7/2 M

**Description:** Time constant of the axial jerk filter which causes a smoother axis setpoint characteristic. The jerk filter will only be active, if the time constant is higher than a position control cycle.

Not active in case of errors that cause a change in follow-up mode (for example EMERGENCY STOP99):

Special cases:

Machine axes that are supposed to be interpolating with one another, must have the same effective jerk filtering (for example the same time constant for tapping without compensating chuck).

Related to:

MD32400 \$MA\_AX\_JERK\_ENABLE (axial jerk limitation)

32412	AX_JERK_FREQ	A07, A04	-		
-	Blocking frequency of axial jerk filter	DOUBLE	NEW CONF		
-					
-	-	10.0	-	-	7/2 M

**Description:** Blocking frequency of axial jerk filter bandstop MD is only active if MD32402 \$MA\_AX\_JERK\_MODE = 3

32414	AX_JERK_DAMP	A07, A04	-		
-	Damping of axial jerk filter	DOUBLE	NEW CONF		
-					
-	-	0.0	-	-	7/2 M

**Description:** Damping of axial jerk filter bandstop:  
Input value 0 means complete blocking with MD32412 \$MA\_AX\_JERK\_FREQ, input values >0 can attenuate the blocking effect.  
MD is only active if MD32402 \$MA\_AX\_JERK\_MODE = 3

32415	EQUIV_CPREC_TIME	A07, A04	\$MA_AX_JERK_TIME, \$MC_CPREC_WITH_FFW
s	Time constant for the programmable contour accuracy	DOUBLE	NEW CONF
-			
-	-	0	-
			7/2 M

**Description:** The data states the jerk filter time constant at which the contour error with active feedforward control is negligibly small.

32420	JOG_AND_POS_JERK_ENABLE	A04	G1,H1,P2,S3,B2
-	Default setting of axis jerk limitation	BOOLEAN	Reset
CTEQ			
-	-	FALSE	-
			7/2 M

**Description:** Enables the function of the axis-specific jerk limitation for the operating modes JOG, REF and positioning axis mode.

1: Axial jerk limitation for JOG mode and positioning axis mode

0: No jerk limitation for JOG mode and positioning axis mode

The maximum jerk occurring is defined in MD32430 \$MA\_JOG\_AND\_POS\_MAX\_JERK.

Related to:

MD32430 \$MA\_JOG\_AND\_POS\_MAX\_JERK (axial jerk)

32430	JOG_AND_POS_MAX_JERK	A04	G1,P2,S3,B2
m/s <sup>3</sup> , rev/s <sup>3</sup>	Axial jerk	DOUBLE	NEW CONF
CTEQ			
-	-	1000.0, 1000.0, 1000.0, 1000.0, 1000.0...	1.e-9
			7/2 M

**Description:** The jerk limit value limits the rate of change of axis acceleration in JOG and REF modes as well as in positioning axis mode with \$MN\_POS\_DYN\_MODE=0. The setting and time calculation are made as for MD20600 \$MC\_MAX\_PATH\_JERK (path-related maximum jerk).

Not relevant for:

- Path interpolation
- Error states that lead to quick stop.

Related to:

MD32420 \$MA\_JOG\_AND\_POS\_JERK\_ENABLE (initial setting of axial jerk limitation)

MD18960 \$MN\_POS\_DYN\_MODE

32431	MAX_AX_JERK	A04	B1,B2
m/s <sup>3</sup> , rev/s <sup>3</sup>	maximum axial jerk for path movement	DOUBLE	NEW CONF
-			
-	5	1.e6, 1.e6, 1.e6, 1.e6, 1.e6...	1.e-9
			3/3 M

**Description:** Maximum axial jerk for path motion  
Each field element corresponds to a G code in the 59th G code group.

32432	PATH_TRANS_JERK_LIM			A04	B1,B2	
m/s <sup>3</sup> , rev/s <sup>3</sup>	maximum axial jerk at block transition in continuous-path mode			DOUBLE	NEW CONF	
CTEQ						
-	5	1.e6, 1.e6, 1.e6, 1.e6, 1.e6...	-	-	3/3	M

**Description:** The control limits the jerk (acceleration jump) at a block transition between contour sections of different curvature to the value set with active jerk limitation.

Not relevant for:

Exact stop

There is an entry for each G code from the 59th G code group (dynamic G code group).

Related to:

Path control, SOFT type of acceleration

32433	SOFT_ACCEL_FACTOR			A04, -	TE9,B1,B2	
-	Scaling of acceleration limitation with SOFT			DOUBLE	NEW CONF	
-						
-	5	1., 1., 1., 1., 1.	1e-9	-	3/3	M

**Description:** Scaling of acceleration limitation with SOFT.

Relevant axial acceleration limitation for SOFT =:

(MD32433 \$MA\_SOFT\_ACCEL\_FACTOR[...] \* MD32300 \$MA\_MAX\_AX\_ACCEL[...])

Each field element corresponds to a G code in the 59th G code group.

32434	G00_ACCEL_FACTOR			A04, -	TE9,B1,B2	
-	Scaling of acceleration limitation with G00.			DOUBLE	NEW CONF	
-						
-	-	1.	1e-9	-	3/3	M

**Description:** Scaling of the acceleration limitation with G00.

Relevant axial acceleration limitation for G00 =:

(MD32433 \$MA\_G00\_ACCEL\_FACTOR[...] \* MD32300 \$MA\_MAX\_AX\_ACCEL[...])

32435	G00_JERK_FACTOR			A04	B1,B2	
-	Scaling of jerk limitation with G00.			DOUBLE	NEW CONF	
-						
-	-	1.	1e-9	-	3/3	M

**Description:** Scaling of the jerk limitation with G00.

Relevant axial jerk limitation for G00 =:

(MD32435 \$MA\_G00\_JERK\_FACTOR[...] \* MD32431 \$MA\_MAX\_AX\_JERK[...])

32436	JOG_MAX_JERK			A04	-	
m/s <sup>3</sup> , rev/s <sup>3</sup>	Maximum axial jerk during JOG motion			DOUBLE	NEW CONF	
CTEQ						
-	-	0.0	-	-	0/0	M

**Description:** The jerk limit value limits the change of axis acceleration in JOG mode only

The behavior of the MD is analog to:

MD32430 \$MA\_JOG\_AND\_POS\_MAX\_JERK

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It therefore also communicates with:  
 MD32420 \$MA\_JOG\_AND\_POS\_JERK\_ENABLE  
 (default of the axial jerk limitation)

32437	AX_JERK_VEL0			A04	B1	
mm/min, rev/min	Velocity threshold for linear jerk adjustment			DOUBLE	NEW CONF	
-						
-	5	3000, 3000, 3000, 3000, 3000...	-	-	3/3	M

**Description:** Velocity at and above which the permissible jerk of an axis increases in a linear fashion.  
 Jerk adjustment only becomes active if MD \$MA\_MAX\_AX\_JERK\_FACTOR is > 1.0.  
 There is an entry for each dynamic G code group.  
 See also MD \$MA\_AX\_JERK\_VEL1 and \$MA\_MAX\_AX\_JERK\_FACTOR.

32438	AX_JERK_VEL1			A04	B1	
mm/min, rev/min	Velocity threshold for linear jerk adjustment			DOUBLE	NEW CONF	
-						
-	5	6000, 6000, 6000, 6000, 6000...	-	-	3/3	M

**Description:** Velocity at and above which the permissible jerk of an axis switches from increasing in a linear fashion to the saturation defined in MD \$MA\_MAX\_AX\_JERK\_FACTOR.  
 The value of this velocity must be greater than the value set with MD \$MA\_AX\_JERK\_VEL0.  
 Jerk adjustment becomes active only if MD \$MA\_MAX\_AX\_JERK\_FACTOR is > 1.0.  
 There is an entry for each dynamic G code group.  
 See also MD \$MA\_AX\_JERK\_VEL0 and \$MA\_MAX\_AX\_JERK\_FACTOR

32439	MAX_AX_JERK_FACTOR			A04	B1	
-	Factor for jerk adjustment at high velocities			DOUBLE	NEW CONF	
-						
-	5	1.0, 1.0, 1.0, 1.0, 1.0	1.0	-	3/3	M

**Description:** Factor for setting adaptive jerk adjustment for an axis.  
 Jerk adjustment becomes active only if the value of this MD is greater than 1.  
 The speed-dependent axial jerk is only used for defining the maximum path velocity and does not affect the maximum path acceleration and maximum path jerk. Therefore, speed-dependent jerk adaptation only affects traversing that includes geometric torsion (change of the curvature). Both the curvature and torsion of linear movements are zero, and jerk adaptation has no effect.  
 There is an entry for each dynamic G code group.  
 See also MD \$MA\_AX\_JERK\_VEL0 and \$MA\_AX\_JERK\_VEL1.

32440	LOOKAH_FREQUENCY		EXP, A04	B1		
-	Smoothing frequency for Look Ahead		DOUBLE	NEW CONF		
-						
-	-	10.	-	-	7/2	M

**Description:** Acceleration procedures in continuous-path mode with Look Ahead which execute with a higher frequency than that parameterized in this MD are smoothed as a function of the parameterization in MD20460 \$MC\_LOOKAH\_SMOOTH\_FACTOR. It is always the minimum of all the axes participating in the path which is determined.

If vibrations are aroused in the mechanics of this axis and if their frequency is known, then this MD should be set to a lower value than this frequency.

32450	BACKLASH		A09	K3,G2		
mm, degrees	Backlash		DOUBLE	NEW CONF		
-						
-	2	0.0, 0.0	-	-	7/2	M

**Description:** Backlash on reversal between positive and negative travel directions. Input of the compensation value is

- positive, if the encoder is leading the machine part (normal situation)
- negative, if the encoder is behind the machine part.

Backlash compensation is not active when 0 is entered. Backlash compensation is always active after reference point approach in all operating modes.

Special cases:  
A specific backlash on reversal must be entered for each measuring system.

Related to:  
MD30200 \$MA\_NUM\_ENCS (number of measuring systems)  
MD36500 \$MA\_ENC\_CHANGE\_TOL  
(Maximum tolerance at actual position value change)

32452	BACKLASH_FACTOR		A09	K3,G2,S1,V1		
-	Evaluation factor for backlash		DOUBLE	NEW CONF		
-						
-	6	1.0, 1.0, 1.0, 1.0, 1.0, 1.0	0.01	100.0	7/2	M

**Description:** Evaluation factor for backlash.

The machine data enables the backlash defined in MD32450 \$MA\_BACKLASH to be changed as a function of the parameter set, in order to take a gear stage dependent backlash into account, for example.

Related to:  
MD32450 \$MA\_BACKLASH[n]

32456	BACKLASH_DYN		A09	-		
mm, degrees	Compensation value of dynamic backlash compensation		DOUBLE	NEW CONF		
-						
-	2	0.0, 0.0	-	-	7/2	M

**Description:** Compensation value for dynamic backlash compensation value

The entry of the compensation value is

- positive if the encoder leading the machine part (normal case)

1.3 NC machine data

- negative if the encoder is following the machine part.  
Backlash compensation becomes ineffective if 0 is entered.  
The dynamic backlash compensation can only be activated after the reference point approach. Activation takes place via PLC user interface signals.  
Special cases:  
A separate compensation value must be entered for each measuring system.  
Corresponds to:  
MD32457 \$MA\_BACKLASH\_DYN\_MAX\_VELO  
(limitation of the compensation value change)  
MD32000 \$MA\_MAX\_AX\_VELO  
(maximum axis velocity)  
MD30200 \$MA\_NUM\_ENCS  
(number of measuring systems)  
MD30200 \$MA\_NUM\_ENCS (number of measuring systems)  
MD36500 \$MA\_ENC\_CHANGE\_TOL  
(maximum tolerance for actual position value changeover)

32457	BACKLASH_DYN_MAX_VELO	A09	-
%	Limitation of dynamic backlash compensation value change	DOUBLE	NEW CONF
-			
-	-	1.0	-
			7/2 M

**Description:** Relative velocity at which a dynamic backlash compensation value is retracted. Limitation of compensation value change. This is entered as percentage of MD32000 \$MA\_MAX\_AX\_VELO.  
Corresponds to:  
MD32456 \$MA\_BACKLASH\_DYN  
(compensation value of dynamic backlash compensation)  
MD32000 \$MA\_MAX\_AX\_VELO  
(maximum axis velocity)

32490	FRICT_COMP_MODE	A09	K3
-	Type of friction compensation	BYTE	PowerOn
-			
-	1	1	0
			4
			7/2 M

**Description:** 0: No friction compensation  
1: Friction compensation with constant injection value or adaptive characteristic  
2: Friction compensation with learned characteristic via neural network  
3: reserved  
4: reserved

32500	FRICT_COMP_ENABLE	A09	K3,G2
-	Friction compensation active	BOOLEAN	NEW CONF
-			
-	-	FALSE	-
			7/2 M

**Description:** 1: Friction compensation is enabled for this axis.  
Depending on the setting of MD32490 \$MA\_FRICT\_COMP\_MODE, either "friction compensation with constant modulation factor" or "QEC with neural networks" becomes active.

In the case of neural QEC, the machine data should not be set to "1" until a valid characteristic has been "learnt".

During the learning stage, the compensation values are added on independently of the contents of this machine data.

0: Friction compensation is not enabled for this axis.

Thus, no friction compensation values are entered.

Related to:

MD32490 \$MA\_FRICT\_COMP\_MODE

Friction compensation type

MD32510 \$MA\_FRICT\_COMP\_ADAPT\_ENABLE

Friction compensation adaptation active

MD32520 \$MA\_FRICT\_COMP\_CONST\_MAX

Maximum friction compensation value

MD32540 \$MA\_FRICT\_COMP\_TIME

Friction compensation time constant

MD38010 \$MA\_MM\_QEC\_MAX\_POINTS

Number of interpolation points for QEC with neural networks

32510	FRICT_COMP_ADAPT_ENABLE	EXP, A09	K3
-	Adaptation friction compensation active	BOOLEAN	NEW CONF
-			
-	1	FALSE	-
			7/2
			M

**Description:** 1: Friction compensation with amplitude adaptation is enabled for the axis. Quadrant errors on circular contours can be compensated with friction compensation.

The amplitude of the friction compensation value required to be added on is frequently not constant over the entire acceleration range. That is, a lower compensation value needs to be entered for optimum friction compensation for higher accelerations than for lower accelerations. The parameters of the adaptation curve have to be determined, and entered in the machine data.

0: Friction compensation with amplitude adaptation is not enabled for the axis.

MD irrelevant for:

MD32500 \$MA\_FRICT\_COMP\_ENABLE = 0

MD32490 \$MA\_FRICT\_COMP\_MODE = 2

Related to:

MD32500 \$MA\_FRICT\_COMP\_ENABLE

Friction compensation active

MD32520 \$MA\_FRICT\_COMP\_CONST\_MAX

Maximum friction compensation value

MD32530 \$MA\_FRICT\_COMP\_CONST\_MIN

Minimum friction compensation value

MD32550 \$MA\_FRICT\_COMP\_ACCEL1

Adaptation acceleration value 1

MD32560 \$MA\_FRICT\_COMP\_ACCEL2

Adaptation acceleration value 2

MD32570 \$MA\_FRICT\_COMP\_ACCEL3

Adaptation acceleration value 3

MD32540 \$MA\_FRICT\_COMP\_TIME

Friction compensation time constant

1.3 NC machine data

32520	FRICT_COMP_CONST_MAX			EXP, A09	K3	
mm/min, rev/min	Maximum friction compensation value			DOUBLE	NEW CONF	
-						
-	1	0.0	-	-	7/2	M

**Description:** If adaptation is inactive (MD32510=0), the maximum friction compensation is applied throughout the entire acceleration range.  
 If adaptation is active (MD32510=1), the maximum friction compensation is applied in accordance with the adaptation curve.  
 In the 1st acceleration range (  $a < MD32550$  ), the switching amplitude =  $MD32520 * (a/MD32550)$ .  
 In the 2nd acceleration range ( $MD32550 \leq a \leq MD32560$ ), the switching amplitude =  $MD32520$ .  
 In the 3rd acceleration range ( $MD32560 < a < MD32570$ ), the switching amplitude =  $MD32520 + (MD32530 - MD32520) / (MD32570 - MD32560) * (a - MD32560)$ .  
 In the 4th acceleration range ( $MD32570 \leq a$  ), the switching amplitude =  $MD32530$ .  
 Not relevant for:  
 MD32500 \$MA\_FRICT\_COMP\_ENABLE = 0  
 MD32490 \$MA\_FRICT\_COMP\_MODE = 2 (neural QEC)  
 Related to:  
 MD32500 \$MA\_FRICT\_COMP\_ENABLE  
 Friction compensation active  
 MD32510 \$MA\_FRICT\_COMP\_ADAPT\_ENABLE  
 Friction compensation adaptation active  
 MD32530 \$MA\_FRICT\_COMP\_CONST\_MIN  
 Minimum friction compensation value  
 MD32550 \$MA\_FRICT\_COMP\_ACCEL1  
 Adaptation acceleration value 1  
 MD32560 \$MA\_FRICT\_COMP\_ACCEL2  
 Adaptation acceleration value 2  
 MD32570 \$MA\_FRICT\_COMP\_ACCEL3  
 Adaptation acceleration value 3  
 MD32540 \$MA\_FRICT\_COMP\_TIME  
 Friction compensation time constant

32530	FRICT_COMP_CONST_MIN			EXP, A09	K3	
mm/min, rev/min	Minimum friction compensation value			DOUBLE	NEW CONF	
-						
-	1	0.0	-	-	7/2	M

**Description:** The minimum friction compensation value is active only if "Friction compensation with adaptation" (MD32510 \$MA\_FRICT\_COMP\_ADAPT\_ENABLE=1) is active.  
 The amplitude of the friction compensation value is entered in the 4th acceleration range ( $MD32570 \leq a$ ).  
 MD irrelevant for:  
 MD32510 \$MA\_FRICT\_COMP\_ADAPT\_ENABLE = 0  
 MD32490 \$MA\_FRICT\_COMP\_MODE = 2 (neural QEC)



Special cases:

In special cases, the value for FRICT\_COMP\_CONST\_MIN may be even higher than for MD32520 \$MA\_FRICT\_COMP\_CONST\_MAX.

Related to:

MD32500 \$MA\_FRICT\_COMP\_ENABLE

Friction compensation active

MD32510 \$MA\_FRICT\_COMP\_ADAPT\_ENABLE

Friction compensation adaptation active

MD32520 \$MA\_FRICT\_COMP\_CONST\_MAX

Maximum friction compensation value

MD32550 \$MA\_FRICT\_COMP\_ACCEL1

Adaptation acceleration value 1

MD32560 \$MA\_FRICT\_COMP\_ACCEL2

Adaptation acceleration value 2

MD32570 \$MA\_FRICT\_COMP\_ACCEL3

Adaptation acceleration value 3

MD32540 \$MA\_FRICT\_COMP\_TIME

Friction compensation time constant

32540	FRICT_COMP_TIME	EXP, A09	K3
s	Friction compensation time constant	DOUBLE	NEW CONF
-			
-	1	0.015	- - 7/2 M

**Description:** The friction compensation value is entered via a DT1 filter.  
The add-on amplitude decays in accordance with the time constant.

MD irrelevant for:

MD32500 \$MA\_FRICT\_COMP\_ENABLE = 0

Related to:

MD32500 \$MA\_FRICT\_COMP\_ENABLE

Friction compensation active

MD32520 \$MA\_FRICT\_COMP\_CONST\_MAX

Maximum friction compensation value

32550	FRICT_COMP_ACCEL1	EXP, A09	K3
m/s <sup>2</sup> , rev/s <sup>2</sup>	Adaptation acceleration value 1	DOUBLE	NEW CONF
-			
-	1	0.0	- - 7/2 M

**Description:** The adaptation acceleration value is only required if "Friction compensation with adaptation" (MD32510=1) is active.

The adaptation acceleration values 1 to 3 are interpolation points for defining the adaptation curve. The adaptation curve is subdivided into 4 ranges, in each of which a different friction compensation value applies.

For the 1st range ( $a < MD32550$ ), the add-on amplitude =  $a * MD32520 / MD32550$

MD irrelevant for:

MD32510 \$MA\_FRICT\_COMP\_ADAPT\_ENABLE = 0

MD32490 \$MA\_FRICT\_COMP\_MODE = 2

Related to:

MD32500 \$MA\_FRICT\_COMP\_ENABLE

Friction compensation active

MD32510 \$MA\_FRICT\_COMP\_ADAPT\_ENABLE  
Friction compensation adaptation active  
MD32520 \$MA\_FRICT\_COMP\_CONST\_MAX  
Maximum friction compensation value  
MD32530 \$MA\_FRICT\_COMP\_CONST\_MIN  
Minimum friction compensation value  
MD32560 \$MA\_FRICT\_COMP\_ACCEL2  
Adaptation acceleration value 2  
MD32570 \$MA\_FRICT\_COMP\_ACCEL3  
Adaptation acceleration value 3  
MD32540 \$MA\_FRICT\_COMP\_TIME  
Friction compensation time constant

32560	FRICT_COMP_ACCEL2	EXP, A09	K3
m/s <sup>2</sup> , rev/s <sup>2</sup>	Adaptation acceleration value 2	DOUBLE	NEW CONF
-			
-	1	0.0	-

**Description:**

The adaptation acceleration value is only required if "Friction compensation with adaptation" (MD32510=1) is active.

Adaptation acceleration values 1 to 3 are interpolation points for defining the adaptation curve. The adaptation curve is subdivided into 4 ranges, in each of which a different friction compensation value applies.

In the 1st acceleration range (  $a < MD32550$  ), the switching amplitude =  $MD32520 * (a/MD32550)$ .

In the 2nd acceleration range ( $MD32550 \leq a \leq MD32560$ ), the switching amplitude = MD32520.

In the 3rd acceleration range ( $MD32560 < a < MD32570$ ), the switching amplitude =  $MD32520 + (MD32530 - MD32520) / (MD32570 - MD32560) * (a - MD32560)$ .

In the 4th acceleration range ( $MD32570 \leq a$  ), the switching amplitude = MD32530.

Not relevant for:

MD32510 \$MA\_FRICT\_COMP\_ADAPT\_ENABLE = 0  
MD32490 \$MA\_FRICT\_COMP\_MODE = 2

Related to:

MD32500 \$MA\_FRICT\_COMP\_ENABLE  
Friction compensation active  
MD32510 \$MA\_FRICT\_COMP\_ADAPT\_ENABLE  
Friction compensation adaptation active  
MD32520 \$MA\_FRICT\_COMP\_CONST\_MAX  
Maximum friction compensation value  
MD32530 \$MA\_FRICT\_COMP\_CONST\_MIN  
Minimum friction compensation value  
MD32550 \$MA\_FRICT\_COMP\_ACCEL1  
Adaptation acceleration value 1  
MD32570 \$MA\_FRICT\_COMP\_ACCEL3  
Adaptation acceleration value 3  
MD32540 \$MA\_FRICT\_COMP\_TIME  
Friction compensation time constant

32570	FRICT_COMP_ACCEL3			EXP, A09	K3	
m/s <sup>2</sup> , rev/s <sup>2</sup>	Adaptation acceleration value 3			DOUBLE	NEW CONF	
-						
-	1	0.0	-	-	7/2	M

**Description:** The adaptation acceleration value is only required if "Friction compensation with adaptation" (MD32510=1) is active.

Adaptation acceleration values 1 to 3 are interpolation points for defining the adaptation curve. The adaptation curve is subdivided into 4 ranges, in each of which a different friction compensation value applies.

In the 1st acceleration range (  $a < MD32550$  ), the switching amplitude =  $MD32520 * (a/MD32550)$ .

In the 2nd acceleration range ( $MD32550 \leq a \leq MD32560$ ), the switching amplitude =  $MD32520$ .

In the 3rd acceleration range ( $MD32560 < a < MD32570$ ), the switching amplitude =  $MD32520 + (MD32530 - MD32520) / (MD32570 - MD32560) * (a - MD32560)$ .

In the 4th acceleration range ( $MD32570 \leq a$  ), the switching amplitude =  $MD32530$ .

Not relevant for:

MD32510 \$MA\_FRICT\_COMP\_ADAPT\_ENABLE = 0

MD32490 \$MA\_FRICT\_COMP\_MODE = 2

Related to:

MD32500 \$MA\_FRICT\_COMP\_ENABLE  
Friction compensation active

MD32510 \$MA\_FRICT\_COMP\_ADAPT\_ENABLE  
Friction compensation adaptation active

MD32520 \$MA\_FRICT\_COMP\_CONST\_MAX  
Maximum friction compensation value

MD32530 \$MA\_FRICT\_COMP\_CONST\_MIN  
Minimum friction compensation value

MD32550 \$MA\_FRICT\_COMP\_ACCEL1  
Adaptation acceleration value 1

MD32560 \$MA\_FRICT\_COMP\_ACCEL2  
Adaptation acceleration value 2

MD32540 \$MA\_FRICT\_COMP\_TIME  
Friction compensation time constant

32580	FRICT_COMP_INC_FACTOR			A09	K3	
%	Weighting of friction compensation value with short travel motions.			DOUBLE	NEW CONF	
-						
-	1	0.0	0	100.0	7/2	M

**Description:** The optimum friction compensation value determined by the circularity test can cause overcompensation of this axis if compensation is activated and axial positioning movements are short.

In such cases, a better setting can be achieved by reducing the amplitude of the friction compensation value and acts on all positioning blocks that are made within an interpolation cycle of the control.

1.3 NC machine data

The factor that has to be entered can be determined empirically and can be different from axis to axis because of the different friction conditions. The input range is between 0 and 100% of the value determined by the circularity test.

The default setting is 0; so that no compensation is performed for short traversing movements.

Related to:

MD32500 \$MA\_FRICT\_COMP\_ENABLE Friction compensation active

32610	VELO_FFW_WEIGHT			A07, A09	G1,TE1,K3,S3,A3,G2,S1,V1	
-	Feedforward control factor f. velocity/speed feedforward control			DOUBLE	NEW CONF	
-						
-	6	1.0, 1.0, 1.0, 1.0, 1.0, 1.0	-	-	7/2	M

**Description:** Weighting factor for feedforward control. Is normally = 1.0 on digital drives, since these keep the setpoint speed exactly .  
 On analog drives, this factor can be used to compensate the gain error of the drive actuator, so that the actual speed becomes exactly equal to the setpoint speed (this reduces the following error with feedforward control).  
 On both drive types, the effect of the feedforward control can be continuously reduced with a factor of < 1.0, if the machine moves too abruptly and other measures (e.g. jerk limitation) are not to be used. This also reduces possibly existing overshoots; however, the error increases on curved contours, e.g. on a circle. With 0.0, you have a pure position controller without feedforward control.  
 Contour monitoring takes into account factors < 1.0.  
 In individual cases, it can, however, become necessary to increase MD CONTOUR\_TOL.

32620	FFW_MODE			A07, A09	G1,K3,S3,G2,S1	
-	Feedforward control mode			BYTE	Reset	
-						
-	-	3	0	4	7/2	M

**Description:** FFW\_MODE defines the feedforward control mode to be applied on an axis-specific basis:  
 0 = No feedforward control  
 1 = Speed feedforward control with PT1 balancing  
 2 = Torque feedforward control (only for SINAMICS) with PT1 balancing  
 3 = Speed feedforward control with Tt balancing  
 4 = Torque feedforward control (only for SINAMICS) with Tt balancing  
 The high-level language instructions FFWON and FFWOF are used to activate and deactivate feedforward control for specific channels on all axes.  
 To prevent feedforward control from being affected by these instructions on individual axes, you can define that it is always activated or always deactivated in machine data FFW\_ACTIVATION\_MODE (see also FFW\_ACTIVATION\_MODE).  
 Torque feedforward control must be activated via the global option data \$ON\_FFW\_MODE\_MASK.  
 If a feedforward control mode is selected (speed or torque feedforward control), MD32630 \$MA\_FFW\_ACTIVATION\_MODE can be used to program in addition whether feedforward control can be activated or deactivated by the part program.

Note for SINAMICS drives with torque feedforward control selected:

Alarm 26016 refers to the current machine data if

the telegram used (see \$MN\_DRIVE\_TELEGRAM\_TYPE) does not support the torque feedforward control function. Remedy: Use telegram 136.

Torque feedforward control is an option that must be activated.

Related to:

MD32630 \$MA\_FFW\_ACTIVATION\_MODE

MD32610 \$MA\_VELO\_FFW\_WEIGHT

MD32650 \$MA\_AX\_INERTIA

32630	FFW_ACTIVATION_MODE			A07, A09	K3,G2	
-	Activate feedforward control from program			BYTE	Reset	
CTEQ						
-	-	1	0	2	7/2	M

**Description:** MD32630 \$FFW\_ACTIVATION\_MODE can be used to define whether the feedforward control for this axis/spindle can be switched on and off by the part program.

0 = The feedforward control cannot be switched on or off by the high-level language elements FFWON and FFWOF respectively.

For the axis/spindle, the state specified by MD32620 \$MA\_FFW\_MODE is therefore always effective.

1 = The feedforward control can be switched on and off by the part program with FFWON and FFWOF respectively.

The instruction FFWON/FFWOF becomes active immediately

2 = The feedforward control can be switched on and off by the part program with FFWON and FFWOF respectively.

The instruction FFWON/FFWOF does not become active until the next axis standstill

The default setting is specified by the channel-specific MD20150 \$MC\_GCODE\_RESET\_VALUES. This setting is valid even before the first NC block is executed.

Notes:

The last valid state continues to be active even after Reset (and therefore also with JOG).

As the feedforward control of all axes of the channel is switched on and off by FFWON and FFWOF respectively, MD32630 \$MA\_FFW\_ACTIVATION\_MODE should be set identically for axes interpolating with one another.

Switching feedforward control on or off while the axis/spindle is traversing may cause compensation operations in the control loop. Interpolating axes are therefore stopped by the part program if such switching operations occur (internal stop Stop G09 is triggered).

Related to:

MD32620 \$MA\_FFW\_MODE

MD20150 \$MC\_GCODE\_RESET\_VALUES

32640	STIFFNESS_CONTROL_ENABLE			A01, A07	TE3,G2	
-	Dynamic stiffness control			BOOLEAN	NEW CONF	
CTEQ						
-	1	FALSE	-	-	7/2	M

**Description:** Activate dynamic stiffness control, if bit is set.

Higher servo gain factors are possible if stiffness control is active (MD32200 \$MA\_POSCTRL\_GAIN).

## Notes:

The availability of this function is determined by the drive used (the drive has to support the DSC function).

Note on PROFIdrive drives:

Alarm 26017 refers to this machine data if:

a. The PROFIdrive telegram used (see \$MN\_DRIVE\_TELEGRAM\_TYPE) does not support the DSC function or does not contain an encoder 1 (such as Tel. 118), to which the DSC scaling for PZD XERR refers. Remedy: Use a sufficiently powerful telegram which also includes encoder 1 (e.g. Tel. 106, 116).

b. Specifically for SINAMICS drives, if inversion of the encoder signal is parameterized in \$MA\_ENC\_FEEDBACK\_POL=-1 with active DSC. Remedy: Remove inversion of the encoder signal from \$MA\_ENC\_FEEDBACK\_POL, and enter it in SINAMICS parameter p410 instead.

32642	STIFFNESS_CONTROL_CONFIG			A01, A07	-	
-	Dynamic stiffness control configuration (DSC)			BYTE	NEW CONF	
CTEQ						
-	1	0	0	1	7/2	M

**Description:**

Configuration of the dynamic stiffness control (DSC):

0: DSC in drive works with indirect measuring system, i.e. motor measuring system (default scenario).

1: DSC in drive works with direct measuring system.

## Notes:

The availability of this function is determined by the drive used (the drive must support the DSC function).

With SINAMICS (P1193 not equal to 0), the value of this machine data must be set to 0.

32644	STIFFNESS_DELAY_TIME			A01, A07	-	
s	dynamic stiffness control: Delay			DOUBLE	PowerOn	
CTEQ						
-	1	0.0	-0.02	0.02	7/2	M

**Description:**

Configuration of compensation dead time of the dynamic stiffness control (DSC) with optimized PROFIBUS/PROFINET cycle, unit: seconds

32648	SPLINES_CONTROL_CONFIG			A01, A07	-	
-	Activation of splines feed forward control			BOOLEAN	PowerOn	
-						
-	-	FALSE	-	-	0/0	M

**Description:**

Only for SINAMICS:

1: Splines functionality is activated

0: Splines functionality is deactivated

32650	AX_INERTIA			EXP, A07, A09	G1,K3,S3,G2	
kgm <sup>2</sup>	Inertia for torque feedforward control			DOUBLE	NEW CONF	
-						
-	-	0.0	-	-	7/2	M

**Description:**

Only with SINAMICS:

Inertia of axis. Used for torque feedforward control.

With torque feedforward control, an additional current setpoint proportional to the torque is directly injected at the input of the current controller. This value is formed using the acceleration and the moment of inertia. The equivalent time constant of the current control loop must be defined for this purpose and entered in MD32800 \$MA\_EQUIV\_CURRCTRL\_TIME.

The total moment of inertia of the axis (drive + load) must also be entered in MD32650 \$MA\_AX\_INERTIA (total moment of inertia referred to motor shaft according to data supplied by machine manufacturer).

When MD32650 \$MA\_AX\_INERTIA and MD32800 \$MA\_EQUIV\_CURRCTRL\_TIME are set correctly, the following error is almost zero even during acceleration (check this by looking at the "following error" in the service display).

The torque feedforward control is deactivated if MD32650 \$MA\_AX\_INERTIA is set to 0. However, because the calculations are performed anyway, torque feedforward control must always be deactivated with MD32620 \$MA\_FFW\_MODE = 0 or 1 or 3 (recommended). Because of the direct current setpoint injection, torque feedforward control is only possible on digital drives.

MD irrelevant for:

MD32620 \$MA\_FFW\_MODE = 0 or 1 or 3

Related to:

MD32620 \$MA\_FFW\_MODE

MD32630 \$MA\_FFW\_ACTIVATION\_MODE

MD32800 \$MA\_EQUIV\_CURRCTRL\_TIME

32652	AX_MASS	EXP, A07, A09	-
kg	Axis mass for torque feedforward control	DOUBLE	NEW CONF
-			
-	-	0.0	-
			7/2 M

**Description:**

SINAMICS only:

Mass of axis for torque feedforward control.

The MD is used on linear drives (MD13040 \$MN\_DRIVE\_TYPE=3 or MD13080 \$MN\_DRIVE\_TYPE\_DP=3) instead of MD32650 \$MA\_AX\_INERTIA.

32700	ENC_COMP_ENABLE	A09	K3
-	Encoder/spindle error compensation.	BOOLEAN	NEW CONF
-			
-	2	FALSE, FALSE	-
			7/2 M

**Description:**

1: LEC (leadscrew error compensation) is activated for the measuring system.

This enables leadscrew and measuring system errors to be compensated.

The function is not enabled internally until the relevant measuring system has been referenced (NC/PLC interface signal DB31, ... DBX60.4 / 60.5 (Referenced/synchronized 1 or 2) = 1).

write protect function (compensation values) active.

0: LEC is not active for the axis/measuring system.

Related to:

MD38000 \$MA\_MM\_ENC\_COMP\_MAX\_POINTS number of interpolation points with LEC

NC/PLC interface signal DB31, ... DBX60.4 (Referenced/synchronized 1)

NC/PLC interface signal DB31, ... DBX60.5 (Referenced/synchronized 2)

32710	CEC_ENABLE			A09	K3	
-	Enable of sag compensation			BOOLEAN	NEW CONF	
-						
-	-	FALSE	-	-	7/2	M

**Description:**

1: Sag compensation is enabled for this axis.  
 Inter-axis machine geometry errors (e.g. sag and angularity errors) can be compensated with sag compensation.  
 The function is not activated until the following conditions have been fulfilled:

- The "Interpolatory compensation" option is set
- The associated compensation tables have been loaded into the NC user memory and enabled (SD41300 \$SN\_CEC\_TABLE\_ENABLE[t] = 1)
- The relevant position measuring system is referenced (NC/PLC interface signal DB31, ... DBX60.4 / 60.5 = 1 (Referenced/synchronized 1 or 2)):

0: Sag compensation is not enabled for the compensation axis.

Related to:  
 MD18342 \$MN\_MM\_CEC\_MAX\_POINTS[t]  
 Number of interpolation points for sag compensation  
 SD41300 \$SN\_CEC\_TABLE\_ENABLE[t]  
 Enable evaluation of sag compensation table t  
 NC/PLC interface signal DB31, ... DBX60.4 / 60.5  
 (referenced/synchronized 1 or 2)

32711	CEC_SCALING_SYSTEM_METRIC			A09	K3,G2	
-	Measuring system of sag compensation			BOOLEAN	NEW CONF	
-						
-	-	TRUE	-	-	7/2	M

**Description:**

Compensation data exist in:  
 0: inch system  
 1: metric system

32720	CEC_MAX_SUM			A09	K3	
mm, degrees	Maximum compensation value for sag compensation			DOUBLE	NEW CONF	
-						
-	-	1.0	0	10.0	7/2	M

**Description:**

In sag compensation, the absolute value of the total compensation value (sum of compensation values of all active compensation relations) is monitored axially with machine data value CEC\_MAX\_SUM.  
 If the determined total compensation value is larger than the maximum value, alarm 20124 is triggered. Program processing is not interrupted. The compensation value output as the additional setpoint is limited to the maximum value.

MD irrelevant to:

- MSEC
- Backlash compensation
- Temperature compensation

Related to:  
 MD32710 \$MA\_CEC\_ENABLE  
 Enable sag compensation



SD41300 \$SN\_CEC\_TABLE\_ENABLE[t]  
 Enable evaluation of sag compensation table t  
 NC/PLC interface signal DB31, ... DBX60.4 / 60.5  
 (referenced/synchronized 1 or 2)

32730	CEC_MAX_VELO	EXP, A09, A04	K3
%	Change in velocity at CEC	DOUBLE	NEW CONF
-			
-	-	10.0	0
		100.0	7/2
			M

**Description:** In sag compensation, modification of the total compensation value (sum of the compensation values of all active compensation relations) is limited axially. The maximum change value is defined in this machine data as a percentage of MD32000 \$MA\_MAX\_AX\_VELO (maximum axis velocity).  
 If the change in the total compensation value is greater than the maximum value, alarm 20125 is output. Program processing is however continued. The path not covered because of the limitation is made up as soon as the compensation value is no longer subject to limitation.

MD irrelevant to:

- MSEC
- Backlash compensation
- Temperature compensation

Related to:

MD32710 \$MA\_CEC\_ENABLE  
 Enable sag compensation  
 MD32000 \$MA\_MAX\_AX\_VELO  
 Maximum axis velocity  
 SD41300 \$SN\_CEC\_TABLE\_ENABLE[t]  
 Enable evaluation of sag compensation table t  
 NC/PLC interface signal DB31, ... DBX60.4 / 60.5  
 (referenced/synchronized 1 or 2)

32750	TEMP_COMP_TYPE	A09	K3,W1
-	Temperature compensation type	BYTE	PowerOn
CTEQ			
-	-	0	0
		7	7/2
			M

**Description:** The type of temperature compensation applicable to the machine axis is activated in MD32750 \$MA\_TEMP\_COMP\_TYPE.

A distinction is made between the following types:

- 0: No temperature compensation active
- 1: Position-independent temperature compensation active  
 (compensation value with SD43900 \$SA\_TEMP\_COMP\_ABS\_VALUE)
- 2: Position-dependent temperature compensation active  
 (compensation value with SD43910 \$SA\_TEMP\_COMP\_SLOPE and SD43920 TEMP\_COMP\_REF\_POSITION)
- 3: Position-dependent and position-independent temperature compensation active  
 (compensation values with SD according to types 1 and 2)

Temperature compensation is an option that must be enabled.

Related to:

SD43900 \$SA\_TEMP\_COMP\_ABS\_VALUE

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Position-dependent temperature compensation value  
 SD43920 \$SA\_TEMP\_COMP\_REF\_POSITION  
 Reference point for position-dependent temperature compensation  
 SD43910 \$SA\_TEMP\_COMP\_SLOPE  
 Gradient for position-dependent temperature compensation  
 MD32760 \$MA\_COMP\_ADD\_VELO\_FACTOR  
 Excessive velocity due to compensation

32760	COMP_ADD_VELO_FACTOR	EXP, A09, A04	K3
-	Excessive velocity due to compensation	DOUBLE	NEW CONF
CTEQ			
-	-	0.01	0. 0.10 7/2 M

**Description:**

The maximum distance that can be traversed because of temperature compensation in one IPO cycle can be limited by the axial MD32760 \$MA\_COMP\_ADD\_VELO\_FACTOR.

If the resulting temperature compensation value is above this maximum, it is traversed over several IPO cycles. There is no alarm.

The maximum compensation value per IPO cycle is specified as a factor referring to the maximum axis velocity (MD32000 \$MA\_MAX\_AX\_VELO).

The maximum gradient of the temperature compensation tanbmax is also limited with this machine data.

Example of calculation of the maximum gradient tanb(max):

1. Calculation of the interpolator cycle time (see Description of Functions Velocities, Setpoint/Actual Value Systems, Cycle Times (G2))

Interpolator cycle time = Basic system clock rate \* factor for interpolation cycle

Interpolator cycle time = MD10050 \$MN\_SYSCLOCK\_CYCLE\_TIME ^ MD10070 \$MN\_IPO\_SYSCLOCK\_TIME\_RATIO

Example:

MD10050 \$MN\_SYSCLOCK\_CYCLE\_TIME = 0.004 [s]

MD10070 \$MN\_IPO\_SYSCLOCK\_TIME\_RATIO = 3

-> Interpolator cycle time = 0.004 \* 3 = 0.012 [s]

2. Calculation of the maximum velocity increase resulting from a change made to the temperature compensation parameter DvTmax

DvTmax = MD32000 \$MA\_MAX\_AX\_VELO \* MD32760 \$MA\_COMP\_ADD\_VELO\_FACTOR

Example: MD32000 \$MA\_MAX\_AX\_VELO = 10 000 [mm/min]

MD32760 \$MA\_COMP\_ADD\_VELO\_FACTOR = 0.01

-> DvTmax = 10 000 \* 0.01 = 100 [mm/min]

3. Calculation of the traverse distances per interpolator cycle

$$S1 \text{ (at } v_{max}) = 10\,000 \times \frac{0.012}{60} = 2.0 \text{ [mm]}$$

$$ST \text{ (at } DvT_{max}) = 100 \times \frac{0.012}{60} = 0.02 \text{ [mm]}$$

4. Calculation of tanbmax

$$\tan b_{max} = \frac{ST}{S1} = \frac{0.02}{2} = 0.01 \text{ (corresponds to value for COMP\_ADD\_VELO\_FACTOR)}$$

-> bmax = arc tan 0.01 = 0.57 degrees

With larger values of SD43910 \$SA\_TEMP\_COMP\_SLOPE, the maximum gradient (here 0.57 degrees) for the position-dependent temperature compensation value is used internally. There is no alarm.

Note:

Any additional excessive velocity resulting from temperature compensation must be taken into account when defining the limit value for velocity monitoring (MD36200 \$MA\_AX\_VELO\_LIMIT).

MD irrelevant for:

MD32750 \$MA\_TEMP\_COMP\_TYPE = 0, sag compensation, LEC, backlash compensation

Related to:

MD32750 \$MA\_TEMP\_COMP\_TYPE

Temperature compensation type

SD43900 \$SA\_TEMP\_COMP\_ABS\_VALUE

Position-independent temperature compensation value

SD43910 \$SA\_TEMP\_COMP\_SLOPE

Gradient for position-dependent temperature compensation

MD32000 \$MA\_MAX\_AX\_VELO

Maximum axis velocity

MD36200 \$MA\_AX\_VELO\_LIMIT

Threshold value for velocity monitoring

MD10070 \$MN\_IPO\_SYSCLOCK\_TIME\_RATIO

Ratio of basic system clock rate to IPO cycle

MD10050 \$MN\_SYSCLOCK\_CYCLE\_TIME

Basic system clock rate

32800	EQUIV_CURRCTRL_TIME		EXP, A07, A09	G1,K3,S3,A2,A3,G2,S1,V1		
s	Equiv. time const. current control loop for feedforward control		DOUBLE	NEW CONF		
-						
-	6	0.0005, 0.0005, 0.0005, 0.0005, 0.0005, 0.0005	-	-	7/2	M

**Description:**

The time constant is used for parameterizing the torque feedforward control and for calculating the dynamic following error model (contour monitoring).

In order to set the torque feedforward control correctly, the equivalent time constant of the current control loop must be determined exactly by measuring the step response of the current control loop.

Closed-loop control free of following errors can be set by inputting negative values when MD32620 \$MA\_FFW\_MODE=4 (but positioning overshoots may then occur).

Delay values taken into account automatically by the software internally are thus compensated again until the actually active minimum symmetrizing time "0" is reached.

Any other negative input values have no further effect.

Negative values input when MD32620 \$MA\_FFW\_MODE=2 are automatically converted internally to the input value "0", which means that they are not active in this case.

Related to:

MD32620 \$MA\_FFW\_MODE

Type of feedforward control

MD32650 \$MA\_AX\_INERTIA

Moment of inertia for torque feedforward control

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or MD32652 \$MA\_AX\_MASS  
 Axis mass for torque feedforward control  
 MD36400 \$MA\_CONTOUR\_TOL  
 Tolerance band contour monitoring

32810	EQUIV_SPEEDCTRL_TIME	A07, A09	G1,K3,S3,A2,A3,G2,S1,V1
s	Equiv. time constant speed control loop for feedforward control	DOUBLE	NEW CONF
-			
-	6	0.003, 0.003, 0.003, 0.003, 0.003...	-
			7/2 M

**Description:** This time constant must be equal to the equivalent time constant of the closed current control loop.  
 It is used for parameterizing the speed feedforward control and for calculating the dynamic following error model (contour monitoring).  
 In addition, this MD determines the time behavior of the closed-loop speed control circuit for simulated drives (MD30130 \$MA\_CTRL\_OUT\_TYPE 0).  
 In order to set the speed feedforward control correctly, the equivalent time constant of the current control loop must be determined exactly by measuring the step response of the current control loop.  
 Closed-loop control free of following errors can be set by inputting negative values when MD32620 \$MA\_FFW\_MODE=3 (but positioning overshoots may then occur).  
 Delay values taken into account automatically by the software internally are thus compensated again until the actually active minimum symmetrizing time "0" is reached.  
 Any other negative input values have no further effect.  
 Negative values input when MD32620 \$MA\_FFW\_MODE=1 are automatically converted internally to the input value "0", which means that they are not active in this case.  
 Related to:  
 MD32620 \$MA\_FFW\_MODE (type of feedforward control)  
 MD32610 \$MA\_VELO\_FFW\_WEIGHT (moment of inertia for speed feedforward control)  
 MD36400 \$MA\_CONTOUR\_TOL (tolerance band contour monitoring)

32890	DESVAL_DELAY_ENABLE	A07	-
-	Axial setpoint phase filter	BOOLEAN	NEW CONF
CTEQ			
-	-	FALSE	-
			7/2 M

**Description:** With the axial setpoint phase filter (deadtime/delay), the phase response can be changed independent of the amplitude response (on the other hand, the conventional jerk filter - refer to MD32402 \$MA\_AX\_JERK\_MODE - influences the amplitude and phase response simultaneously).  
 1: Setpoint phase filter (delay) is active.  
 0: Setpoint phase filter (delay) is inactive.  
 Corresponds with:  
 MD32895 \$MA\_DESVAL\_DELAY\_TIME (time constant for the axial setpoint phase filter)

32895	DESVAL_DELAY_TIME	A07	-
s	Time constant for the axial setpoint phase filter	DOUBLE	NEW CONF
-			
-	-	0.0	-
			7/2 M

**Description:** The time constant for the phase filter (deadtime/delay) should be entered into the MD.

This means that the actual setpoint phase response can be set independently of the amplitude response

Time constants in the range from 0 up to 64 position controller clock cycles can be set, the phase filter for e.g. 2ms position controller clock cycle, can delay setpoints by 0 to 128ms.

Values entered outside these limits are implicitly limited to the specified limits (without alarm).

Note: delays in the setpoint circuit, as a result of the system, slow down or have a negative impact on the response, e.g. for thread tapping, safety retraction motion or exact stop/block change; this means that the smallest time constants possible should be set in the MD.

The MD is only effective, if MD32890 \$MA\_DESVAL\_DELAY\_ENABLE = 1.

Corresponds with:  
MD32890 \$MA\_DESVAL\_DELAY\_ENABLE (axial setpoint phase filter)

32900	DYN_MATCH_ENABLE	A07	G21,S3,G2
-	Dynamic response adaptation	BOOLEAN	NEW CONF
CTEQ			
-	-	FALSE	-
			7/2
			M

**Description:** With dynamic response adaptation, axes with different servo gain factors can be set to the same following error with MD32910 \$MA\_DYN\_MATCH\_TIME.

1: Dynamic response adaptation active.  
0: Dynamic response adaptation inactive.

Related to:  
MD32910 \$MA\_DYN\_MATCH\_TIME[n]  
(time constant of dynamic response adaptation)

32910	DYN_MATCH_TIME	A07	G1,K3,S3,A2,A3,G2,S1,V1
s	Time constant of dynamic response adaptation	DOUBLE	NEW CONF
-			
-	6	0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-
			7/2
			M

**Description:** The time constant of the dynamic response adaptation of an axis has to be entered in this MD.

Axes interpolating with each other but having different dynamic responses can be adapted to the "slowest" control loop by means of this value.

The difference of the equivalent time constant of the "slowest" control loop to the individual axis has to be entered here as the time constant of the dynamic response adaptation.

The MD is only active if MD32900 \$MA\_DYN\_MATCH\_ENABLE = 1.

Related to:  
MD32900 \$MA\_DYN\_MATCH\_ENABLE (dynamic response adaptation)

32920	AC_FILTER_TIME	A10	-
s	Smoothing filter time constant for adaptive control	DOUBLE	PowerOn
-			
-	-	0.0	-
			7/2
			M

**Description:** In the case of PROFIdrive drives (provided that they transport the following drive actual values in the PROFIdrive message frame,

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e.g. MD13060 \$MN\_DRIVE\_TELEGRAM\_TYPE = 116):

With the main run variables \$AA\_LOAD, \$AA\_POWER, \$AA\_TORQUE, and \$AA\_CURR, the following drive actual values can be measured:

- Drive utilization
- Drive active power
- Drive torque setpoint value
- Current actual value of the axis or spindle

To compensate any peaks, the measured values can be smoothed with a PT1 filter. The filter time constant is defined with MD32920 \$MA\_AC\_FILTER\_TIME (filter smoothing time constant for adaptive control).

When measuring the drive torque setpoint value or the current actual value, the filter is active in addition to the filters available in the drive. The two filters are connected in series, if both significantly and slightly smoothed values are required in the system. The filter is switched off when a smoothing time of 0 seconds is entered.

32930	POSCTRL_OUT_FILTER_ENABLE	A07	G2
-	Activation of low-pass filter at position controller output	BOOLEAN	NEW CONF
CTEQ			
-	-	FALSE	-
			7/2 M

**Description:** Activation of low-pass filter at position controller output.  
 Activation of the low-pass filter is only enabled when the dynamic stiffness control is inactive MD32640=0.

32940	POSCTRL_OUT_FILTER_TIME	A07	G2
s	Time constant of low-pass filter at position controller output	DOUBLE	NEW CONF
-			
-	-	0.0	-
			7/2 M

**Description:** Time constant of low-pass filter at position controller output  
 Related to:  
 MD32640 \$MA\_STIFFNESS\_CONTROL\_ENABLE (dynamic stiffness control)

32950	POSCTRL_DAMPING	EXP, A07	G2
%	Damping of the speed control circuit.	DOUBLE	NEW CONF
-			
-	-	0.0	-
			7/2 M

**Description:** Factor to additionally dampen the speed control loop  
 Purpose:  
 Damping an oscillating axis by additionally entering a differential position, which is derived from the difference of the two measuring systems.  
 Prerequisite: the axis must have two measuring systems, one encoder must be directly connected, the other indirectly.  
 Explanation of the scaling:  
 An input value of "100%" means the following: An additional torque corresponding to SINAMICS-p2003 is input, if

- for linear motors, there is a position difference of 1mm
- for rotary axes, there is a position difference of 360 degrees on the load side
- for linear axes (rot. drive), there is a position difference corresponding to MD31030 \$MA\_LEADSCREW\_PITCH (e.g. standard 10mm).

32990	POSCTRL_DESVAL_DELAY_INFO	EXP, A01, A07	B3
s	Actual setpoint position delay	DOUBLE	NEW CONF
-			
-	3	0.0, 0.0, 0.0	- - ReadOnly M

**Description:** This MD shows the additional setpoint value delay of the position controller in the current controller structure. It is set automatically for NCU link with different position controller cycles and can be changed via MD10065 \$MN\_POSCTRL\_DESVAL\_DELAY for the entire NCU.

In index 0, the value is displayed without feedforward control.  
 In index 1, the value is displayed with speed feedforward control.  
 In index 2, the value is displayed with torque feedforward control.

Related to:  
 MD10065 \$MN\_POSCTRL\_DESVAL\_DELAY

33000	FIPO_TYPE	EXP, A07	G1,G3,S3,G2
-	Fine interpolator type	BYTE	PowerOn
CTEQ			
-	-	2	1 3 7/2 M

**Description:** The type of the fine interpolator has to be entered in this MD:

- 1: differential FIPO
- 2: cubic FIPO
- 3: cubic FIPO, optimized for operation with feedforward control

Calculation time required and contour quality increase with increasing type of FIPO.

- The default setting is the cubic FIPO.
- If no feedforward control is used in the position control loop, the use of the differential FIPO reduces the calculation time while slightly increasing the contour error.
- If the position control cycle and the interpolation cycle are identical, fine interpolation does not take place, i.e. the different types of fine interpolator do not have different effects.

33050	LUBRICATION_DIST	A03, A10	A2,Z1
mm, degrees	Traversing path for lubrication from PLC	DOUBLE	NEW CONF
-			
-	-	1.0e8	- - 7/2 M

**Description:** After the traversing path defined in the MD has been covered, the state of the axial interface signal "Lubrication pulse" is inverted, this can activate an automatic lubrication device.

The traversing path is summated after Power on.  
 The "Lubrication pulse" can be used with axes and spindles.

Application example(s):  
 The machine bed lubrication can be carried out as a function of the relevant traversed path.

Note:  
 When 0 is entered, the NC/PLC interface signal DB31, ... DBX76.0 (Lubrication pulse) is set in every cycle.

Related to:  
 NC/PLC interface signal DB31, ... DBX76.0 (Lubrication pulse)

33060	MAINTENANCE_DATA	A10	W6,2,4,6,2
-	Configuration of maintenance data recording	DWORD	Reset
-			
-	-	1	-
-	-	-	-
-	-	7/2	M

**Description:** Configuration of axis maintenance data recording:

Bit 0:  
Recording the entire traversing path, entire traversing time and number of axis traversing procedures

Bit 1:  
Recording the entire traversing path, entire traversing time and number of traversing procedures at high axis speed

Bit 2:  
Recording the total sum of axis jerks, the time in which the axis is traversed with jerk, and the number of traversing procedures with jerk.

33100	COMPRESS_POS_TOL	A10	F2,B1,K1
mm, degrees	Maximum deviation during compression	DOUBLE	NEW CONF
CTEQ			
-	-	0.1	1.e-9
-	-	-	-
-	-	7/7	M

**Description:** The value specifies the maximum permissible path deviation for each axis with compression.

The higher the value, the more short blocks can be compressed into a long block.

Not relevant for:  
Active programmable contour/orientation tolerance (CTOL, OTOL, ATOL)

33120	PATH_TRANS_POS_TOL	A10	K1,PGA
mm, degrees	Maximum deviation for smoothing with G645	DOUBLE	NEW CONF
CTEQ			
-	-	0.005	1.e-9
-	-	-	-
-	-	7/7	M

**Description:** The value specifies the maximum permitted path deviation for smoothing with G645.

This is only relevant to tangential block transitions that are not acceleration-continuous.

For smoothing of corner with G645 tolerance MD33100 \$MA\_COMPRESS\_POS\_TOL becomes active like with G642.

34000	REFP_CAM_IS_ACTIVE	A03, A11	G1,R1
-	Axis with reference point cam	BOOLEAN	Reset
-			
-	-	TRUE	-
-	-	-	-
-	-	7/2	M

**Description:** 1: There is at least one reference point cam for this axis  
0: This axis does not have a reference point cam (e.g. rotary axis)

The referencing cycle starts immediately with phase 2 (see documentation)

Machine axes that have only one zero mark over the whole travel range or rotary axes that have only one zero mark per revolution do not require an additional reference cam that selects the zero mark (select MD34000 \$MA\_REFP\_CAM\_IS\_ACTIVE = 0).



The machine axis marked this way accelerates to the velocity specified in MD34040 \$MA\_REFP\_VELO\_SEARCH\_MARKER (reference point creep velocity) when the plus/minus traversing key is pressed, and synchronizes with the next zero mark.

34010	REFP_CAM_DIR_IS_MINUS	A03, A11	G1,R1
-	Approach reference point in minus direction	BOOLEAN	Reset
-			
-	-	FALSE	-
-	-	-	7/2 M

**Description:** 0: MD34010 \$MA\_REFP\_CAM\_DIR\_IS\_MINUS Reference point approach in plus direction  
 1: MD34010 \$MA\_REFP\_CAM\_DIR\_IS\_MINUS Reference point approach in minus direction

For incremental measuring systems:  
 If the machine axis is positioned in front of the reference cam, it accelerates, depending on the plus/minus traversing key pressed, to the velocity specified in MD34020 \$MA\_REFP\_VELO\_SEARCH\_CAM (reference point approach velocity) in the direction specified in MD34010 \$MA\_REFP\_CAM\_DIR\_IS\_MINUS. If the wrong traversing key is pressed, reference point approach is not started. If the machine axis is positioned on the reference cam, it accelerates to the velocity specified in MD34020 \$MA\_REFP\_VELO\_SEARCH\_CAM and travels in the direction opposite to that specified in MD34010 \$MA\_REFP\_CAM\_DIR\_IS\_MINUS.

For linear measuring systems with distance-coded reference marks:  
 If the machine axis has a reference cam (linear measuring systems with distance-coded reference marks do not necessarily require a reference cam) and the machine axis is positioned on the reference cam, it accelerates, irrespectively of the plus/minus traversing key pressed, to the velocity specified in MD34040 \$MA\_REFP\_VELO\_SEARCH\_MARKER (reference point creep velocity) in the direction opposite to that specified in MD34010 \$MA\_REFP\_CAM\_DIR\_IS\_MINUS.

34020	REFP_VELO_SEARCH_CAM	A03, A11, A04	G1,R1
mm/min, rev/min	Reference point approach velocity	DOUBLE	Reset
-			
-	-	5000.00, 5000.00, 5000.00, 5000.00...	-
-	-	-	7/2 M

**Description:** The reference point approach velocity is the velocity at which the machine axis travels in the direction of the reference cam after the traversing key has been pressed (phase 1). This value should be set at a magnitude large enough for the axis to be stopped to 0 before it reaches a hardware limit switch.

MD irrelevant for:  
 Linear measuring systems with distance-coded reference marks

34030	REFP_MAX_CAM_DIST	A03, A11	G1,R1
mm, degrees	Maximum distance to reference cam	DOUBLE	Reset
-			
-	-	10000.0	-
-	-	-	7/2 M

**Description:** If the machine axis travels a maximum distance defined in MD34030 \$MA\_REFP\_MAX\_CAM\_DIST from the starting position in the direction of the reference cam, without reaching the reference cam (NC/PLC interface signal DB31, ... DBX12.7

(Reference point approach delay) is reset), the axis stops and alarm 20000 "Reference cam not reached" is output.

Irrelevant to:

Linear measuring systems with distance-coded reference marks

34040	REFP_VELO_SEARCH_MARKER			A03, A11, A04	G1,R1,S1	
mm/min, rev/min	Creep velocity			DOUBLE	Reset	
-						
-	2	300.00, 300.00, 300.00, 300.00...	-	-	7/2	M

**Description:**

1) For incremental measuring systems:

This is the velocity at which the axis travels during the time between initial detection of the reference cam and synchronization with the first zero mark (phase 2).

Traversing direction: Opposite to the direction specified for the cam search (MD34010 \$MA\_REFP\_CAM\_DIR\_IS\_MINUS)

If MD34050 \$MA\_REFP\_SEARCH\_MARKER\_REVERSE (direction reversal on reference cam) is enabled, then if the axis is synchronized with a rising reference cam signal edge on the cam, the axis traverses at the velocity defined in MD34020 \$MA\_REFP\_VELO\_SEARCH\_CAM.

2) Indirect measuring system with BERO on the load-side (preferred for spindles):

At this velocity, a search is made for the zero mark associated with the BERO (zero mark selection per VDI signal). The zero mark is accepted if the actual velocity lies within the tolerance range defined in MD35150

\$MA\_SPIND\_DES\_VELO\_TOL as a deviation from the velocity specified in MD34040 \$MA\_REFP\_VELO\_SEARCH\_MARKER[n].

3) For linear measuring systems with distance-coded reference marks:

The axis crosses the two reference marks at this velocity. The maximum velocity must be low enough to ensure that the time required to travel the smallest possible reference mark distance [(x(minimum))] on the linear measuring system is longer than one position controller cycle.

The formula

$$[x(\text{minimum})] \text{ [mm]} = \frac{\text{Basic dist.}}{2} * \text{Grad.cycle} - \frac{\text{Meas.length}}{\text{Basic dist.}}$$

with Basic distance [multiple of graduation cycle]

Graduation cycle [mm]

Measuring length [mm] yields:

x(minimum) [mm]

$$\text{max. velocity [m/s]} = \frac{\text{Position controller cycle [ms]}}{\text{Position controller cycle [ms]}}$$

This limiting value consideration also applies to the other measuring systems.

Traversing direction:

- as defined in MD34010 \$MA\_REFP\_CAM\_DIR\_IS\_MINUS;
- if the axis is already positioned on the cam, the axis is traversed in the opposite direction

34050	REFP_SEARCH_MARKER_REVERSE		A03, A11	G1,R1		
-	Direction reversal to reference cam		BOOLEAN	Reset		
-						
-	2	FALSE, FALSE	-	-	7/2	M

**Description:** This MD can be used to set the direction of search for the zero mark:  
MD34050 \$MA\_REFP\_SEARCH\_MARKER\_REVERSE = 0  
Synchronization with falling reference cam signal edge  
The machine axis accelerates to the velocity specified in MD34040 \$MA\_REFP\_VELO\_SEARCH\_MARKER (reference point creep velocity) in the opposite direction to that specified in MD34010 \$MA\_REFP\_CAM\_DIR\_IS\_MINUS (reference point approach in minus direction).  
If the axis leaves the reference cam (NC/PLC interface signal DB31, ... DBX12.7 (Reference point approach delay) is reset) the control is synchronized with the first zero mark.  
MD34050 \$MA\_REFP\_SEARCH\_MARKER\_REVERSE = 1  
Synchronization with rising reference cam signal edge  
The machine axis accelerates to the velocity defined in MD34020 \$MA\_REFP\_VELO\_SEARCH\_CAM (reference point creep velocity) in the opposite direction to that specified in the MD34010 \$MA\_REFP\_CAM\_DIR\_IS\_MINUS. If the axis leaves the reference cam (NC/PLC interface signal DB31, ... DBX12.7 (Reference point approach delay) is reset), the machine axis decelerates to a halt and accelerates in the opposite direction towards the reference cam at the velocity specified in MD34040: \$MA\_REFP\_VELO\_SEARCH\_MARKER. When the reference cam is reached (NC/PLC interface signal DB31, ... DBX12.7 (Reference point approach delay) is enabled) the control is synchronized with the first zero mark.  
MD irrelevant to:  
Linear measuring systems with distance-coded reference marks

34060	REFP_MAX_MARKER_DIST		A03, A11	G1,R1,S1		
mm, degrees	maximum distance to reference mark		DOUBLE	Reset		
-						
-	2	20.0, 20.0, 20.0, 20.0, 20.0, 20.0...	-	-	7/2	M

**Description:** For incremental measuring systems:  
If, after leaving the reference cam (NC/PLC interface signal DB31, ... DBX12.7 (Reference point approach delay) is reset), the machine axis travels a distance defined in MD34060: \$MA\_REFP\_MAX\_MARKER\_DIST without detecting the zero mark, the axis stops and alarm 20002 "Zero mark missing" is output.  
For linear measuring systems with distance-coded reference marks:  
If the machine axis travels a distance defined in MD34060 \$MA\_REFP\_MAX\_MARKER\_DIST from the starting position without crossing two zero marks, the axis stops and alarm 20004 "Reference mark missing" is output.

34070	REFP_VELO_POS		A03, A11, A04	G1,R1		
mm/min, rev/min	Reference point positioning velocity		DOUBLE	Reset		
-						
-	-	10000.00, 10000.00, 10000.00, 10000.00...	-	-	7/2	M

**Description:** For incremental measuring systems:

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The axis travels at this velocity between the time of synchronization with the first zero mark and arrival at the reference point.

For linear measuring systems with distance-coded reference marks:

The axis travels at this velocity between the time of synchronization (crossing two zero marks) and arrival at the target point.

34080	REFP_MOVE_DIST		A03, A11	G1,R1,S1,S3,G2		
mm, degrees	Reference point distance		DOUBLE	NEW CONF		
-						
-	2	-2.0, -2.0	-1e15	1e15	7/2	M

**Description:**

1. Standard measuring system (incremental with equidistant zero marks)  
Reference point positioning movement: 3rd phase of the reference point approach:

The axis traverses from the position at which the zero mark is detected with the velocity REFP\_AX\_VELO\_POS along the path REFP\_MOVE\_DIST + REFP\_MOVE\_DIST\_CORR (relative to the marker).

REFP\_SET\_POS is set as the current axis position at the target point.

2. Irrelevant for distance-coded measuring system.

Override switch and selection jog/continuous mode ( MD JOG\_INC\_MODE\_IS\_CONT ) are active.

34090	REFP_MOVE_DIST_CORR		A03, A02, A08, A11	G1,R1,S1,S3,G2		
mm, degrees	Reference point offset/absolute offset		DOUBLE	NEW CONF		
-, -						
-	2	0.0, 0.0	-1e12	1e12	7/2	M

**Description:**

- Incremental encoder with zero mark(s):

After detection of the zero mark, the axis is positioned away from the zero mark by the distance specified in MD34080 \$MA\_REFP\_MOVE\_DIST + MD34090 \$MA\_REFP\_MOVE\_DIST\_CORR. After traversing this distance, the axis has reached the reference point. MD34100 \$MA\_REFP\_SET\_POS is transferred into the actual value.

During traversing by MD34080 \$MA\_REFP\_MOVE\_DIST + MD34090 \$MA\_REFP\_MOVE\_DIST\_CORR, the override switch and MD11300 \$MN\_JOG\_INC\_MODE\_LEVELTRIGGRD (jog/continuous mode) are active.

- Distance-coded measuring system:

MD34090 \$MA\_REFP\_MOVE\_DIST\_CORR acts as an absolute offset. It describes the offset between the machine zero and the first reference mark of the measuring system.

- Absolute encoder:

MD34090 \$MA\_REFP\_MOVE\_DIST\_CORR acts as an absolute offset.

It describes the offset between the machine zero and the zero point of the absolute measuring system.

Note:

In conjunction with absolute encoders, this MD is modified by the control during calibration processes and modulo offset.

With rotary absolute encoders (on linear and rotary axes), the modification frequency also depends on the setting of MD34220 \$MA\_ENC\_ABS\_TURNS\_MODULO.

Manual input or modification of this MD via the part program should therefore be followed by a Power ON Reset to activate the new value and prevent it from being lost.

The following applies to an NCU-LINK:

If a link axis uses an absolute encoder, every modification of MD34090 \$MA\_REFP\_MOVE\_DIST\_CORR on the home NCU (servo physically available) is updated only locally and not beyond the limits of the NCU. The modification is therefore not visible to the link axis. Writing MD34090 \$MA\_REFP\_MOVE\_DIST\_CORR through the link axis is rejected with alarm 17070.

34092	REFP_CAM_SHIFT	A03, A11	G1, R1
mm, degrees	electronic cam offset for incremental measuring systems	DOUBLE	Reset
-			
-	2	0.0, 0.0	- - 7/2 M

**Description:** Electronic cam offset for incremental measuring systems with equidistant zero marks.

When the reference cam signal occurs, the zero mark search does not start immediately but is delayed until after the distance from REFP\_CAM\_SHIFT. This ensures the reproducibility of the zero mark search through a defined selection of a zero mark, even with temperature-dependent expansion of the reference cam.

Because the reference cam offset is calculated by the control in the interpolation cycle, the actual cam offset is at least REFP\_CAM\_SHIFT and at most REFP\_CAM\_SHIFT+(MD34040 \$MA\_REFP\_VELO\_SEARCH\_MARKER\*interpolation cycle)

The reference cam offset is effective in the search direction of the zero mark.

The reference cam offset is only active if existing cam MD34000 \$MA\_REFP\_CAM\_IS\_ACTIVE=1.

34093	REFP_CAM_MARKER_DIST	A03, A11	R1
mm, degrees	Reference cam/reference mark distance	DOUBLE	PowerOn
-			
-	2	0.0, 0.0	- - ReadOnly M

**Description:** The value displayed corresponds to the distance between exiting the reference cam and the occurrence of the reference mark. If the values are too small, there is a risk of not being able to determine the reference point due to temperature reasons or varying operating times of the cam signal. The distance travelled may serve as a clue for setting the electronic reference cam offset.

This machine data is a display data and can therefore not be changed.

34100	REFP_SET_POS	A03, A11	G1, S3, G2, R1, S1
mm, degrees	Reference point for incremental system	DOUBLE	Reset
-			
-	4	0., 0., 0., 0.	-45000000 45000000 7/2 M

**Description:**

- Incremental encoder with zero mark(s):  
The position value which is set as the current axis position after detection of the zero mark and traversal of the distance REFP\_MOVE\_DIST + REFP\_MOVE\_DIST\_CORR (relative to zero mark). REFP\_SET\_POS of the reference point number, which is set at the instant that the edge of the reference cam signal rises (NC/PLC interface signal DB31, \_DBX2.4 - 2.7 (Reference point value 1 to 4)), is set as the axis position.
- Distance-coded measuring system:  
Target position which is approached when MD34330 \$MA\_REFP\_STOP\_AT\_ABS\_MARKER is set to 0 (FALSE) and two zero marks have been crossed.

- Absolute encoder:

MD34100 \$MA\_REFP\_SET\_POS corresponds to the correct actual value at the calibration position.

The reaction on the machine depends on the status of MD34210

\$MA\_ENC\_REFP\_STATE: When MD34210 \$MA\_ENC\_REFP\_STATE = 1, the value of MD34100 \$MA\_REFP\_SET\_POS is transferred as the absolute value.

When MD34210 \$MA\_ENC\_REFP\_STATE = 2 and MD34330 \$MA\_REFP\_STOP\_AT\_ABS\_MARKER = 0 (FALSE), the axis approaches the target position stored in MD34100 \$MA\_REFP\_SET\_POS.

The value of MD34100 \$MA\_REFP\_SET\_POS that has been set via NC/PLC interface signal DB31, \_DBX2.4 - 2.7 (Reference point value 1 to 4) is used.

Related to:

NC/PLC interface signal DB31, \_DBX2.4 - 2.7 (Reference point value 1 to 4)

34102	REFP_SYNC_ENCS	A03, A02		R1, Z1	
-	Calibration of measuring systems	BYTE		Reset	
-					
-	-	0	0	1	7/2 M

**Description:** Calibrating the measuring system to the reference measuring system can be activated for all measuring systems of this axis with this machine data. The calibration procedure is made during reference point approach or when calibrated absolute encoders selected for the closed-loop control are switched on.

Values:

0: No measuring system calibration, measuring systems must be referenced individually

1: Calibration of all measuring systems of the axis to the position of the reference measuring system

In combination with MD30242 \$MA\_ENC\_IS\_INDEPENDENT = 2, the passive encoder is calibrated to the active encoder but NOT referenced.

34104	REFP_PERMITTED_IN_FOLLOWUP	A03, A02		R1	
-	Enable referencing in follow-up mode	BOOLEAN		Reset	
-					
-	-	FALSE	-	-	7/2 M

**Description:** An axis can also be referenced in the follow-up mode under JOG+REF mode by means of an external motion.

34110	REFP_CYCLE_NR	A03		G1, TE3, D1, R1, Z1	
-	Sequence of axes in channel-specific referencing	DWORD		PowerOn	
-					
-	-	1, 2, 3, 4, 5, 6, 7, 8...	-1	31	7/2 M

**Description:** MD34110 \$MA\_REFP\_CYCLE\_NR = 0 -----> axis-specific referencing  
 Axis-specific referencing is started separately for each machine axis with the NC/PLC interface signal DB31, ... DBX4.7 / 4.6 (Plus/minus travel keys). Up to 8 axes (840D) can be referenced simultaneously.  
 The following alternatives are provided for referencing the machine axes in a specific sequence:

- The operator has to observe the correct sequence on startup.
- The PLC checks the sequence on startup or defines the sequence itself.
- The channel-specific referencing function is used.

MD34110 \$MA\_REFP\_CYCLE\_NR = 1 -----> channel-specific referencing

Channel-specific referencing is started with the NC/PLC interface signal DB21-30 DBX1.0 (Activate referencing). The control acknowledges a successful start with the NC/PLC interface signal DB21-30 DBX33.0 (Referencing active). Each machine axis assigned to the channel can be referenced with channel-specific referencing (this is achieved internally on the control by simulating the plus/minus traversing keys). The axis-specific MD34110 \$MA\_REFP\_CYCLE\_NR can be used to define the sequence in which the machine axes are referenced:

-1 means:  
The machine axis is not started by channel-specific referencing, and NC start is possible without referencing this axis.

0 means:  
The machine axis is not started by channel-specific referencing, and NC start is not possible without referencing this axis.

1 means:  
The machine axis is started by channel-specific referencing.

2 means:  
The machine axis is started by channel-specific referencing if all machine axes identified by a 1 in MD34110 \$MA\_REFP\_CYCLE\_NR are referenced.

3 means:  
The machine axis is started by channel-specific referencing if all machine axes identified by a 2 in MD34110 \$MA\_REFP\_CYCLE\_NR are referenced.

4 to 8 :  
As above for further machine axes.

Setting the channel-specific MD20700 \$MC\_REF\_NC\_START\_LOCK (NC start disable without reference point) to zero has the effect of entering -1 for all the axes of a channel.

MD irrelevant to:  
Axis-specific referencing

Related to:  
NC/PLC interface signal DB21-30 DBX1.0 (Activate referencing)  
NC/PLC interface signal DB21-30 DBX33.0 (Referencing active)

34200	ENC_REFP_MODE			A03, A02	G1,R1,S1	
-	Referencing mode			BYTE	PowerOn	
-						
-	2	1, 1	0	8	7/2	M

**Description:** The mounted position measuring systems can be classified for referencing as follows with MD34200 \$MA\_ENC\_REFP\_MODE:

- MD34200 \$MA\_ENC\_REFP\_MODE = 0  
If an absolute encoder is available: MD34100 \$MA\_REFP\_SET\_POS is taken over  
Other encoders: Reference point approach not possible (SW2.2 and higher)
- MD34200 \$MA\_ENC\_REFP\_MODE = 1  
Referencing of incremental, rotary or linear measuring systems:  
Zero pulse on the encoder track  
Referencing of absolute, rotary measuring systems:  
Replacement zero pulse based on the absolute information
- MD34200 \$MA\_ENC\_REFP\_MODE = 3  
Referencing on linear measuring systems with distance-coded reference marks:  
Linear measuring system with distance-coded reference marks (as specified by Heidenhain)

- MD34200 \$MA\_ENC\_REFP\_MODE = 4 :  
Reserved (BERO with 2-edge evaluation)
- MD34200 \$MA\_ENC\_REFP\_MODE = 8:  
Referencing for linear measuring systems with distance-coded reference marks:  
Linear measuring system with distance-coded reference marks over 4 zero marks  
(increased safety).

34210	ENC_REFP_STATE	A07, A03, A02			R1	
-	Adjustment status of absolute encoder	BYTE			Immediately	
-						
-	2	0, 0	0	3	7/4	M

**Description:**

- Absolute encoder:

This machine data contains the absolute encoder status

- 0: Encoder is not calibrated
- 1: Encoder calibration enabled (but not yet calibrated)
- 2: Encoder is calibrated

Default setting for recommissioning: Encoder is not calibrated.

- 3: No significance, has the same effect as "0"

- Incremental encoder:

This machine data contains the "Referenced status", which can be saved beyond Power On:

- 0: Default setting: No automatic referencing
- 1: Automatic referencing enabled, but encoder not yet referenced
- 2: Encoder is referenced and at exact stop, automatic referencing becomes active at the next encoder activation
- 3: The last axis position buffered before switch off is restored, no automatic referencing

Default setting for recommissioning: No automatic referencing

34220	ENC_ABS_TURNS_MODULO	A03, A02			R1	
-	Modulo range for rotary absolute encoder	DWORD			PowerOn	
-						
-	2	4096, 4096	1	100000	7/2	M

**Description:**

Number of encoder revolutions a rotary absolute encoder is able to resolve (see also the maximum multiturn information of the absolute encoder, see encoder data sheet or PROFIdrive parameter p979).

The absolute position of a rotary axis is reduced to this resolvable range when an absolute encoder is switched on:

In other words, a MODULO transformation takes place if the actual position sensed is larger than the position permitted by MD ENC\_ABS\_TURNS\_MODULO.

0 degrees <= position <= n\*360 degrees (with n = ENC\_ABS\_TURNS\_MODULO)

Note:

With SW 2.2, the position is reduced to this range when the control/encoder is switched on. With SW 3.6 and higher, half of this value represents the maximum permissible travel distance with the control switched off/the encoder inactive.

Special cases:

For PROFIdrive, any integer value is permissible.

The MD is relevant only for rotary encoders (on linear and rotary axes).



Corresponds to:  
PROFIdrive parameter p979

34230	ENC_SERIAL_NUMBER	A02	R1
-	Encoder serial number	DWORD	PowerOn
-			
-	2	0, 0	- - 7/2 M

**Description:** The encoder serial number (EnDat encoders) can be read out here. It is updated at PowerOn or when parking is deselected. "0" is supplied for encoders which do not have a serial number available. Manipulating this MD normally causes automatic absolute encoder maladjustment (\$MA\_ENC\_REFP\_MODE returns to "0").

34300	ENC_REFP_MARKER_DIST	A03, A02	R1
mm, degrees	Basic distance of reference marks of distance-coded encoders.	DOUBLE	PowerOn
-			
-	2	10.0, 10.0	- - 7/2 M

**Description:** In addition to the incremental encoder track, a further encoder track is available with distance-coded measuring systems for determining the absolute encoder position. This encoder track has reference marks at defined, different distances. The basic distance between the fixed reference marks (which are the reference marks that are always the same distance from one another) can be taken from the data sheet, and directly transferred into machine data MD34300 \$MA\_ENC\_REFP\_MARKER\_DIST.

With the basic distance between the fixed reference marks (MD34300 \$MA\_ENC\_REFP\_MARKER\_DIST), the distance between two reference marks (MD34310 \$MA\_ENC\_MARKER\_INC), and the number of encoder marks (MD31020 \$MA\_ENC\_RESOL) on angular measuring systems or the graduation cycle (MD31010 \$MA\_ENC\_GRID\_POINT\_DIST) on linear measuring systems, the absolute encoder position can be determined once two successive reference marks have been crossed.

MD34300 \$MA\_ENC\_REFP\_MARKER\_DIST is also used for a plausibility check of reference mark distances.

Examples of application:  
For example: Heidenhain LS186 C  
MD 31010 = 0.02mm (graduation cycle)  
MD 34300 = 20.00mm (basic distance between the reference marks)  
MD 34310 = 0.02mm (distance between two reference marks corresponds to one graduation cycle).

34310	ENC_MARKER_INC	A03, A02	R1
mm, degrees	Interval between two reference marks for distance-coded scales	DOUBLE	Reset
-			
-	2	0.02, 0.02	- - 7/2 M

**Description:** The distances between two reference marks are defined variably, so that the position of the crossed reference marks can be determined accurately in linear measuring systems with distance-coded reference marks. The difference between two reference mark distances is entered in MD34310 \$MA\_ENC\_MARKER\_INC.

1.3 NC machine data

MD irrelevant for:

Incremental measuring systems

Special cases:

On linear measuring systems with distance-coded reference marks supplied by Heidenhain, the interval between two reference marks is always equal to one graduation cycle.

34320	ENC_INVERS	A03, A02	G2,R1
-	Length measuring system inverse to axis movement.	BOOLEAN	Reset
-			
-	2	FALSE, FALSE	- - 7/2 M

**Description:**

- In the case of a distance-coded measuring system:  
When setting a reference point, the actual position (determined by the distance-coded reference marks) on the linear measuring system is assigned to an exact machine axis position (referred to the machine zero point). The absolute offset between the machine zero point and the position of the 1st reference mark on the linear measuring system must therefore be entered in MD34090 \$MA\_REFP\_MOVE\_DIST\_CORR (reference point/absolute offset). In addition, MD34320 \$MA\_ENC\_INVERS must be used to set whether the linear measuring system is connected in the same or the opposite direction to the machine system.  
MD irrelevant to:  
Incremental encoders without distance-coded reference marks.

34330	REFP_STOP_AT_ABS_MARKER	A03	G1,R1
-	Distance-coded linear measuring system without target point	BOOLEAN	Reset
-			
-	2	TRUE, TRUE	- - 7/2 M

**Description:**

- Distance-coded measuring system:  
REFP\_STOP\_AT\_ABS\_MARKER = 0:  
At the end of the reference cycle, the position entered in MD34100 \$MA\_REFP\_SET\_POS is approached (normal case for phase 2).  
REFP\_STOP\_AT\_ABS\_MARKER = 1:  
The axis is braked after detection of the second reference mark (shortening of phase 2)
- Absolute encoder:  
MD34330 \$MA\_REFP\_STOP\_AT\_ABS\_MARKER defines the response of an axis with a valid calibration identifier (MD34210 \$MA\_ENC\_REFP\_STATE = 2) with G74 or when a traversing key is actuated in JOG-REF:  
REFP\_STOP\_AT\_ABS\_MARKER = 0:  
Axis traverses to the position entered in MD34100 \$MA\_REFP\_SET\_POS  
REFP\_STOP\_AT\_ABS\_MARKER = 1:  
Axis does not traverse.  
MD irrelevant for:  
Incremental encoders with zero mark (standard encoders)  
Related to:  
MD34100 \$MA\_REFP\_SET\_POS  
(reference point distance/target point for distance-coded system)

34800	WAIT_ENC_VALID	A01			-	
-	Parameter setting for part program command WAITENC	DWORD			PowerOn	
-						
-	-	0	0	1	7/2	M

**Description:** Parameter setting for part program command WAITENC:  
0: Axis is not taken into account when waiting for synchronized / referenced or restored position with part program command WAITENC.  
1: A delay is applied in part program command WAITENC until a synchronized / referenced or restored position is available for this axis.

34990	ENC_ACTVAL_SMOOTH_TIME	A02			V1	
s	Smoothing time constant for actual values.	DOUBLE			Reset	
-						
-	2	0.0, 0.0	0.0	0.5	7/2	M

**Description:** Using low-resolution encoders, a more continuous motion of coupled path or axis motions can be achieved with smoothed actual values. The bigger the time constant, the better the smoothing of actual values and the larger the over-travel.  
Smoothed actual values are used for:

- Thread-cutting (G33, G34, G35)
- Revolutional feedrate (G95, G96, G97, FPRAON)
- Display of actual position and velocity, or speed respectively.

35000	SPIND_ASSIGN_TO_MACHAX	A01, A06, A11			M1,S3,K2,S1	
-	Assignment of spindle to machine axis	BYTE			PowerOn	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	20	7/2	M

**Description:** Spindle definition. The spindle is defined when the spindle number has been entered in this MD.  
Example:  
If the corresponding axis is to be spindle 1, value "1" must be entered in this MD.  
The spindle functions are possible only for modulo rotary axes. For this purpose MD30300 \$MA\_IS\_ROT\_AX and MD30310 \$MA\_ROT\_IS\_MODULO must be set.  
The axis functionality is maintained; transition to axis operation can be performed with M70.  
The gear stage-specific spindle data are set in parameter blocks 1 to 5; parameter block 0 is used for axis operation (MD35590 \$MA\_PARAMSET\_CHANGE\_ENABLE).  
The lowest spindle number is 1, the highest number depends on the number of axes in the channel.  
If other spindle numbers are to be assigned, the function "spindle converter" must be used.  
With multi-channel systems, the same numbers can be assigned in all channels, except for those spindles active in several channels (replacement axes/spindles MD 30550: \$MA\_AXCONF\_ASSIGN\_MASTER\_CHAN).

1.3 NC machine data

35010	GEAR_STEP_CHANGE_ENABLE			A06, A11	P3 pl,P3 sl,S1	
-	Parameterize gear stage change			DWORD	Reset	
CTEQ						
-	-	0x00	0	0x2B	7/2	M

**Description:**

Meaning of bit places:

Bit 0 = 0 and bit 1 = 0:

There is an invariable gear ratio between motor and load. The MD of the first gear stage is active. Gear stage change is not possible with M40 to M45.

Bit 0 = 1:

Gear stage change at undefined change position. The gear can have up to 5 gear stages, which can be selected with M40, M41 to M45. To support the gear stage change, the motor can carry out oscillating motions, which must be enabled by the PLC program.

Bit 1 = 1:

Same meaning as bit 0 = 1, although the gear stage change is carried out in a configured spindle position (SW 5.3 and higher). The change position is configured in MD35012 \$MA\_GEAR\_STEP\_CHANGE\_POSITION. The position is approached in the current gear stage before the gear stage change. If this bit is set, bit 0 is not taken into account!

Bit 2: Reserved

Bit 3 = 1:

The gear stage change dialog between NCK and PLC is simulated. The setpoint gear stage is output to the PLC. A checkback signal from the PLC is not awaited. The acknowledgment is generated internally in the NCK.

Bit 4: Reserved

Bit 5 = 1:

The second gear stage data set is used for tapping with G331/G332. The bit must be set for the master spindle used for tapping. Bit 0 or bit 1 must be set.

Related to:

MD35090 \$MA\_NUM\_GEAR\_STEPS (number of gear stages 1st data set, see bit 5)

MD35092 \$MA\_NUM\_GEAR\_STEPS2 (number of gear stages 2nd data set, see bit 5)

MD35110 \$MA\_GEAR\_STEP\_MAX\_VELO (max. speed for autom. gear stage change)

MD35112 \$MA\_GEAR\_STEP\_MAX\_VELO2 (max. speed for autom. gear stage change 2nd data set, see bit 5)

MD35120 \$MA\_GEAR\_STEP\_MIN\_VELO (min. speed for autom. gear stage change)

MD35122 \$MA\_GEAR\_STEP\_MIN\_VELO2 (min. speed for autom. gear stage change 2nd data set, see bit 5)

35012	GEAR_STEP_CHANGE_POSITION			A06, A11	S1	
mm, degrees	Gear stage change position			DOUBLE	NEW CONF	
CTEQ						
-	6	0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	-	7/2	M

**Description:**

Gear stage change position.

The value range must be within the configured modulo range.

Related to:

MD35010 \$MA\_GEAR\_STEP\_CHANGE\_ENABLE, bit 1

MD30330 \$MA\_MODULO\_RANGE

35014	GEAR_STEP_USED_IN_AXISMODE			A01, A06, A11	-	
-	Gear stage for axis mode with M70			DWORD	NEW CONF	
CTEQ						
-	-	0	0	5	7/2	M

**Description:** With this MD, a gear stage can be defined which can be loaded into the axis mode during the transition with M70. The parameter set zero used in axis mode is to be optimized on this gear stage.

Significance of the values:

0: There is no implicit gear stage change with M70.

The current gear stage is retained.

1 ... 5:

There is a change into gear stage (1...5) during the execution of M70.

During the transition into axis mode without M70, there is monitoring for this gear stage and alarm 22022 is issued if necessary. The condition for a gear stage change is the general release of the function in MD35010 \$MA\_GEAR\_STEP\_CHANGE\_ENABLE.

Secondary conditions:

When changing from axis mode into spindle mode, the configured gear stage continues to remain active. There is no automatic return to the last active gear stage in spindle mode.

35020	SPIND_DEFAULT_MODE			A06, A10	S1	
-	Initial spindle setting			BYTE	Reset	
CTEQ						
-	-	0	0	3	7/2	M

**Description:** SPIND\_DEFAULT\_MODE activates the set operating mode of the spindle at the time specified in MD35030 \$MA\_SPIND\_DEFAULT\_ACT\_MASK. The appropriate spindle operating modes can be set with the following values:

0 Speed mode, position control deselected

1 Speed mode, position control activated

2 Positioning mode, no check for synchronized/referenced position on NC start

3 Axis mode, MD34110 \$MA\_REFP\_CYCLE\_NR can be used to configure / deactivate forced referencing on NC start

Corresponds with:

MD35030 \$MA\_SPIND\_DEFAULT\_ACT\_MASK (activate spindle initial setting)

MD20700 \$MC\_REFP\_NC\_START\_LOCK (NC start disable without reference point)

35030	SPIND_DEFAULT_ACT_MASK			A06, A10	S1	
-	Time at which initial spindle setting is effective			BYTE	Reset	
CTEQ						
-	-	0x00	0	0x03	7/2	M

**Description:** SPIND\_DEFAULT\_ACT\_MASK specifies the time at which the operating mode defined in MD35020 \$MA\_SPIND\_DEFAULT\_MODE becomes effective. The initial spindle setting can be assigned the following values at the following points in time:

0 POWER ON

1 POWER ON and NC program start

2 POWER ON and RESET (M2/M30)

Special cases:

If MD35040 \$MA\_SPIND\_ACTIVE\_AFTER\_RESET = 1, the following supplementary conditions are applicable:

- SPIND\_DEFAULT\_ACT\_MASK should be set to 0
- If this is not possible, the spindle must be at a standstill prior to activation.

Related to:

MD35020 \$MA\_SPIND\_DEFAULT\_MODE (initial spindle setting)

MD35040 \$MA\_SPIND\_ACTIVE\_AFTER\_RESET (spindle active after reset)

35032	SPIND_FUNC_RESET_MODE			A06, A10	-	
-	Reset response of individual spindle functions			DWORD	PowerOn	
CTEQ						
-	-	0x00	0	0x01	7/2	M

**Description:** This data allows the "GWPS in every operating mode" function to be selected/deselected.

SPIND\_FUNC\_RESET\_MODE, bit 0 = 0 : "GWPS in every operating mode" is deselected

SPIND\_FUNC\_RESET\_MODE, bit 0 = 1 : "GWPS in every operating mode" is selected

35035	SPIND_FUNCTION_MASK			A06, A10	K1,S1	
-	Spindle functions			DWORD	Reset	
CTEQ						
-	-	0x510	-	-	7/2	M

**Description:** This MD allows spindle-specific functions to be set.

The MD is bit-coded, the following bits are assigned:

Bit 0 = 1: Gear stage changes are suppressed with activated DryRun function for

block programming (M40, M41 to M45), programming via FC18, and synchronized actions.

Bit 1 = 1: Gear stage changes are suppressed with activated program test function

for block programming (M40, M41 to M45), programming via FC18, and synchronized actions.

Bit 2 = 1: Gear stage change for programmed gear stage will finally be carried

out after deselection of DryRun or program test functions with REPOS.

Bit 3: reserved

Bit 4 = 1:

The programmed speed is transferred to SD 43200 \$SA\_SPIND\_S (incl. speed default settings via FC18 and synchronized actions).

S programmings that are not speed programmings are not written to the SD. These include, for example, S value with constant cutting velocity (G96, G961), S value with revolution-related dwell time (G4).

Bit 5 = 1:

The content of SD 43200 \$SA\_SPIND\_S is applied as the speed setpoint for JOG. If the content is zero, then other JOG speed default settings become active (see SD 41200 JOG\_SPIND\_SET\_VELO).

Bit 6: reserved

Bit 7: reserved

Bit 8 = 1:

The programmed cutting velocity is transferred to SD 43202 \$SA\_SPIND\_CONSTCUT\_S (incl. default settings via FC18). S programmings, that are not cutting velocity programmings, are not written to the SD. These include, for example, S value outside of constant cutting velocity (G96, G961, G962), S value with revolution-related dwell time (G4), S value in synchronized actions.

Bit 9: reserved

Bit 10 = 0:

SD 43206 \$SA\_SPIND\_SPEED\_TYPE is not changed by part program or channel settings,

= 1:

For the master spindle, the value of the 15th G group (type of feedrate) is transferred to SD 43206 \$SA\_SPIND\_SPEED\_TYPE. For all other spindles, the corresponding SD remains unchanged.

Bit 11: reserved

Bit 12 = 1:

Spindle override is active with zero mark search for M19, SPOS, and SPOSA

= 0:

Previous response (default)

The following bits 16-20 can be used to set spindle-specific M functions which are output to the VDI interface

if the corresponding M functionality has been generated implicitly for the program sequence.

Bit 16: reserved

Bit 17: reserved

Bit 18: reserved

Bit 19: "Output implicit M19 to PLC"

= 0: If MD20850 \$MC\_SPOS\_TO\_VDI = 0 too, no auxiliary function M19 is generated for SPOS and SPOSA. As a result, the acknowledgment time for the auxiliary function is also eliminated. This can cause problems in the case of short blocks.

= 1: The implicit auxiliary function M19 is generated with the programming of SPOS and SPOSA and output to the PLC. The address is expanded in accordance with the spindle number.

Bit 20: "Output implicit M70 to PLC"

= 0: No generation of implicit auxiliary function M70. Note: A programmed auxiliary function M70 is always output to the PLC.

= 1: Auxiliary function M70 is generated implicitly and output to the PLC on transition to axis mode. The address is expanded in accordance with the spindle number.

Bit 21: reserved

Bit 22 = 0: As of NCK version 78.00.00: The NC/PLC interface signal DB31, ... DBX17.6 (invert M3/M4) is applied to the function for interpolatory tapping G331/G332.

Bit 22 = 1: Response is compatible with SW releases prior to NCK version 78.00.00: The NC/PLC interface signal DB31, ... DBX17.6 (invert M3/M4) is not applied to the function for interpolatory tapping G331/G332.

MD is Corresponds with:

MD20850 \$MC\_SPOS\_TO\_VDI

MD35040 \$MA\_SPIND\_ACTIVE\_AFTER\_RESET

MD35020 \$MA\_SPIND\_DEFAULT\_MODE

## SD43200 \$SA\_SPIND\_S

35040	SPIND_ACTIVE_AFTER_RESET			A06, A10	S1,Z1,2,7	
-	Own spindle RESET			BYTE	PowerOn	
CTEQ						
-	-	0	0	2	7/2	M

**Description:** MD35040 \$MA\_SPIND\_ACTIVE\_AFTER\_RESET defines the response of the spindle after channel reset NC/PLC interface signal DB21-30 DBX7.7 (Reset) and program end (M2, M30).

This MD is only active in the spindle mode open-loop control mode. In positioning mode or oscillation mode, the spindle is always stopped.

MD35040 \$MA\_SPIND\_ACTIVE\_AFTER\_RESET = 0:

- Spindle stops (with M2/M30 and channel and mode group reset).
- Program is canceled.
- For spindle mode, the programmed ACC and VELOLIM are reset to 100% if MD22400 \$MC\_S\_VALUES\_ACTIVE\_AFTER\_RESET and the axis-specific MD32320 \$MA\_DYN\_LIMIT\_RESET\_MASK do not specify anything else.

MD35040 \$MA\_SPIND\_ACTIVE\_AFTER\_RESET= 1:

- Spindle does not stop.
- Program is canceled.
- For spindle mode, the programmed ACC and VELOLIM are retained.

MD35040 \$MA\_SPIND\_ACTIVE\_AFTER\_RESET= 2:

- Spindle does not stop at the M function configured via MD10714 \$MN\_M\_NO\_FCT\_EOP (e.g. M32).
- However, the spindle stops at channel or mode group reset.
- For spindle mode, the programmed ACC and VELOLIM are retained.

The NC/PLC interface signal DB31, ... DBX2.2 (Delete distance-to-go/Spindle reset) is always effective, independent of MD35040

\$MA\_SPIND\_ACTIVE\_AFTER\_RESET.

Not relevant to:

- Spindle modes other than open-loop control mode.

Related to:

NC/PLC interface signal DB21-30 DBX7.7 (Reset)

NC/PLC interface signal DB31, ... DBX2.2 (Delete distance-to-go/Spindle reset)

35090	NUM_GEAR_STEPS			A06, A10	S1	
-	Number of gear stages			DWORD	Reset	
-						
-	-	5	1	5	2/2	M

**Description:** Number of set gear stages.

The first gear stage is always available.

Corresponding MDs:

MD35010 \$MA\_GEAR\_STEP\_CHANGE\_ENABLE (gear stages available/functions)

MD35012 \$MA\_GEAR\_STEP\_CHANGE\_POSITION (gear stage change position)

MD35014 \$MA\_GEAR\_STEP\_USED\_IN\_AXISMODE (gear stage for axis mode with M70)

MD35110 \$MA\_GEAR\_STEP\_MAX\_VELO (max. speed for gear stage change)

MD35120 \$MA\_GEAR\_STEP\_MIN\_VELO (min. speed for gear stage change)

MD35130 \$MA\_GEAR\_STEP\_MAX\_VELO\_LIMIT (max. speed of gear stage)

MD35140 \$MA\_GEAR\_STEP\_MIN\_VELO\_LIMIT (min. speed of gear stage)

MD35200 \$MA\_GEAR\_STEP\_SPEEDCTRL\_ACCEL (acceleration in speed control mode)



MD35210 \$MA\_GEAR\_STEP\_POSCTRL\_ACCEL (acceleration in position control mode)  
 MD35310 \$MA\_SPIND\_POSIT\_DELAY\_TIME (positioning delay time)  
 MD35550 \$MA\_DRILL\_VELO\_LIMIT (maximum speeds for tapping)  
 MD35092 \$MA\_NUM\_GEAR\_STEPS2 (number of gear stages 2nd gear stage data set)

35092	NUM_GEAR_STEPS2	A06, A10			S1	
-	Number of gear stages of 2nd gear stage data set	DWORD			Reset	
-						
-	-	5	1	5	2/2	M

**Description:** Number of set gear stages of the second gear stage data set for the function 'Tapping with G331/G332'.

Activation (only makes sense for master spindle on tapping): MD 35010  
 \$MA\_GEAR\_STEP\_CHANGE\_ENABLE, bit 5.

The number of gear stages must not be the same in the first and second gear stage data sets.

Corresponding MD:

MD35010 \$MA\_GEAR\_STEP\_CHANGE\_ENABLE (gear stages available/functions)

MD35112 \$MA\_GEAR\_STEP\_MAX\_VELO2 (2nd gear stage data set: max. speed for gear stage change)

MD35122 \$MA\_GEAR\_STEP\_MIN\_VELO2 (2nd gear stage data set: min. speed for gear stage change)

MD35212 \$MA\_GEAR\_STEP\_POSCTRL\_ACCEL2 (2nd gear stage data set: acceleration in position control mode)

35100	SPIND_VELO_LIMIT	A06, A11, A04			TE3,G2,S1,V1,Z1	
rev/min	Maximum spindle speed	DOUBLE			Reset	
CTEQ						
-	-	10000.0	1.0e-6	-	7/2	M

**Description:** MD35100 \$MA\_SPIND\_VELO\_LIMIT defines the maximum spindle speed that the spindle (the spindle chuck with the workpiece or the tool) must not exceed. The NCK limits an excessive spindle setpoint speed to this value. If the maximum spindle actual speed is exceeded, even allowing for the spindle speed tolerance (MD35150 \$MA\_SPIND\_DES\_VELO\_TOL), there is a fault with the drive and the NC/PLC interface signal DB31, ... DBX83.0 (speed limit exceeded) is set. Alarm 22100 "Maximum speed reached" is also output and all axes and spindles on the channel are decelerated (provided the encoder is still functioning correctly). The spindle has to be brought to a standstill before modifying the MD.

Corresponds with:

MD35150 \$MA\_SPIND\_DES\_VELO\_TOL (spindle speed tolerance)

SD43235 \$SD\_SPIND\_USER\_VELO\_LIMIT (speed limitation set by user)

NC/PLC interface signal DB31, ... DBX83.0 (speed limit exceeded)

Alarm 22100 "Maximum speed reached"

35110	GEAR_STEP_MAX_VELO			A06, A11, A04	A3,S1	
rev/min	Maximum speed for gear stage change			DOUBLE	NEW CONF	
CTEQ						
-	6	500., 500., 1000., 2000., 4000., 8000.	-	-	7/2	M

**Description:** MD35110 \$MA\_GEAR\_STEP\_MAX\_VELO defines the maximum speed (upper switching threshold) of the gear stage for automatic gear stage change M40 S... The speed ranges for the gear stages must be defined without gaps between them or can overlap.

Incorrect

MD35110 \$MA\_GEAR\_STEP\_MAX\_VELO [gear stage1] =1000

MD35120 \$MA\_GEAR\_STEP\_MIN\_VELO [gear stage2] =1200

Correct

MD35110 \$MA\_GEAR\_STEP\_MAX\_VELO [gear stage1] =1000

MD35120 \$MA\_GEAR\_STEP\_MIN\_VELO [gear stage2] = 950

Note:

- Programming a spindle speed which exceeds the highest numbered gear stage MD35110 \$MA\_GEAR\_STEP\_MAX\_VELO [MD35090] triggers a switch to the highest gear stage (MD35090).

Related to:

MD35120 \$MA\_GEAR\_STEP\_MIN\_VELO (min. speed for automatic gear stage selection M40)

MD35090 \$MA\_NUM\_GEAR\_STEPS (number of gear stages)

MD35010 \$MA\_GEAR\_STEP\_CHANGE\_ENABLE (gear stage change is possible)

MD35130 \$MA\_GEAR\_STEP\_MAX\_VELO\_LIMIT (maximum speed of gear stage with speed control)

MD35135 \$MA\_GEAR\_STEP\_PC\_MAX\_VELO\_LIMIT (maximum speed of gear stage with position control)

MD35140 \$MA\_GEAR\_STEP\_MIN\_VELO\_LIMIT (min. speed of gear stage)

35112	GEAR_STEP_MAX_VELO2			A06, A11, A04	S1	
rev/min	2nd data set: Maximum speed for gear stage change			DOUBLE	NEW CONF	
CTEQ						
-	6	500., 500., 1000., 2000., 4000., 8000.	-	-	2/2	M

**Description:** -

The 2nd gear stage data block for tapping with G331/G332 is activated with MD 35010:\$MA\_GEAR\_STEP\_CHANGE\_ENABLE bit 5 for the master spindle.

Related to:

MD35122 \$MA\_GEAR\_STEP\_MIN\_VELO2 (minimum speed for 2nd data block gear stage selection)

MD35092 \$MA\_NUM\_GEAR\_STEPS2 (number of gear stages 2nd gear stage data block)

MD35010 \$MA\_GEAR\_STEP\_CHANGE\_ENABLE (gear stage change, 2nd data block is possible)

MD35130 \$MA\_GEAR\_STEP\_MAX\_VELO\_LIMIT (maximum speed of gear stage with speed control)

MD35135 \$MA\_GEAR\_STEP\_PC\_MAX\_VELO\_LIMIT (maximum speed of gear stage with position control)

MD35140 \$MA\_GEAR\_STEP\_MIN\_VELO\_LIMIT (min. speed of gear stage)

35120	GEAR_STEP_MIN_VELO		A06, A11, A04	S1		
rev/min	Minimum speed for gear stage change		DOUBLE	NEW CONF		
CTEQ						
-	6	50., 50., 400., 800., 1500., 3000.	-	-	7/2	M

**Description:**

-

See MD35120 \$MA\_GEAR\_STEP\_MAX\_VELO for more information.

Note:

- Programming a spindle speed which undershoots the lowest speed of the first gear stage MD35120 \$MA\_GEAR\_STEP\_MIN\_VELO[1] triggers a switch to the first gear stage.

Not relevant for:

- Programming of speed 0 (S0) if MD35120 \$MA\_GEAR\_STEP\_MIN\_VELO[1] > 0

Related to:

MD35110 \$MA\_GEAR\_STEP\_MAX\_VELO (maximum speed for automatic gear stage selection M40)

MD35090 \$MA\_NUM\_GEAR\_STEPS (number of gear stages)

MD35010 \$MA\_GEAR\_STEP\_CHANGE\_ENABLE (gear stage change is possible)

MD35130 \$MA\_GEAR\_STEP\_MAX\_VELO\_LIMIT (maximum speed of the gear stage with speed control)

MD35135 \$MA\_GEAR\_STEP\_PC\_MAX\_VELO\_LIMIT (maximum speed of the gear stage with position control)

MD35140 \$MA\_GEAR\_STEP\_MIN\_VELO\_LIMIT (min. speed of the gear stage)

35122	GEAR_STEP_MIN_VELO2		A06, A11, A04	S1		
rev/min	2nd data set: Minimum speed for gear stage change		DOUBLE	NEW CONF		
CTEQ						
-	6	50., 50., 400., 800., 1500., 3000.	-	-	2/2	M

**Description:**

The minimum speed (lower switching threshold) of the gear stage for automatic gear stage change M40 G331 S.. is set in GEAR\_STEP\_MIN\_VELO2 for interpolatory tapping G331, G332. The speed ranges of the gear stages must be defined so that there are no gaps between them or they can overlap.

The 2nd gear stage data block for tapping with G331/G332 is activated with MD35010 \$MA\_GEAR\_STEP\_CHANGE\_ENABLE bit 5 for the master spindle.

Related to:

MD35112 \$MA\_GEAR\_STEP\_MAX\_VELO2 (maximum speed for 2nd data block gear stage change)

MD35092 \$MA\_NUM\_GEAR\_STEPS2 (number of gear stages 2nd gear stage data block)

MD35010 \$MA\_GEAR\_STEP\_CHANGE\_ENABLE (gear stage change, 2nd data block is possible)

MD35130 \$MA\_GEAR\_STEP\_MAX\_VELO\_LIMIT (maximum speed of gear stage with speed control)

MD35135 \$MA\_GEAR\_STEP\_PC\_MAX\_VELO\_LIMIT (maximum speed of gear stage with position control)

MD35140 \$MA\_GEAR\_STEP\_MIN\_VELO\_LIMIT (min. speed of gear stage)

35130	GEAR_STEP_MAX_VELO_LIMIT			A06, A11, A04	A2,S1,V1	
rev/min	Maximum speed of gear stage			DOUBLE	NEW CONF	
CTEQ						
-	6	500., 500., 1000., 2000., 4000., 8000.	1.0e-6	-	7/2	M

**Description:** The maximum speed of the current gear stage for speed control mode (position control not active) is configured in MD35130 \$MA\_GEAR\_STEP\_MAX\_VELO\_LIMIT. The speed setpoints generated taking the override into account are limited to this speed.

Note:

- The configured speed cannot exceed the value from MD35100 \$MA\_SPIND\_VELO\_LIMIT.
- If position control is active for the spindle, the speed is limited to the maximum speed of MD35135 \$MA\_GEAR\_STEP\_PC\_MAX\_VELO\_LIMIT.
- The NC/PLC interface signal "Setpoint speed limited" is set to indicate that the speed is being limited.
- The maximum speed entered here has no effect on the automatic gear stage selection M40 S..
- The upper switching threshold for the automatic gear stage selection M40 is configured in MD35110 \$MA\_GEAR\_STEP\_MAX\_VELO.

Related to:

MD35135 \$MA\_GEAR\_STEP\_PC\_MAX\_VELO\_LIMIT (maximum speed of the gear stage with position control)

MD35140 \$MA\_GEAR\_STEP\_MIN\_VELO\_LIMIT (minimum speed of the gear stage)

MD35010 \$MA\_GEAR\_STEP\_CHANGE\_ENABLE (gear stage selection is possible)

MD35110 \$MA\_GEAR\_STEP\_MAX\_VELO (max. speed for automatic gear stage selection M40)

MD35120 \$MA\_GEAR\_STEP\_MIN\_VELO (min. speed for automatic gear stage selection M40)

35135	GEAR_STEP_PC_MAX_VELO_LIMIT			A06, A11, A04	S1	
rev/min	Maximum speed of the gear stage with position control			DOUBLE	NEW CONF	
CTEQ						
-	6	0., 0., 0., 0., 0., 0.	0	-	7/2	M

**Description:** The maximum speed of the current gear stage is configured in MD35135 \$MA\_GEAR\_STEP\_PC\_MAX\_VELO\_LIMIT with position control active. The speed setpoints generated taking the override into account are limited to this speed. If a value of 0 is set (default), 90% of the value from MD35130 \$MA\_GEAR\_STEP\_MAX\_VELO\_LIMIT will become the maximum speed with position control active.

Note:

- The configured speed cannot exceed the value from MD35100 \$MA\_SPIND\_VELO\_LIMIT.
- The NC/PLC interface signal "Setpoint speed limited" is set to indicate that the speed is being limited.
- The maximum speed entered here has no effect on the automatic gear stage selection M40 S..
- The upper switching threshold for the automatic gear stage selection M40 is configured in MD35110 \$MA\_GEAR\_STEP\_MAX\_VELO.

Related to:

MD35130 \$MA\_GEAR\_STEP\_MAX\_VELO\_LIMIT (maximum speed of the gear stage with speed control)

MD35140 \$MA\_GEAR\_STEP\_MIN\_VELO\_LIMIT (minimum speed of the gear stage)  
 MD35010 \$MA\_GEAR\_STEP\_CHANGE\_ENABLE (gear stage selection is possible)  
 MD35110 \$MA\_GEAR\_STEP\_MAX\_VELO (max. speed for automatic gear stage selection M40)  
 MD35120 \$MA\_GEAR\_STEP\_MIN\_VELO (min. speed for automatic gear stage selection M40)

35140	GEAR_STEP_MIN_VELO_LIMIT			A06, A11, A04	S1,V1	
rev/min	Minimum speed of gear stage			DOUBLE	NEW CONF	
CTEQ						
-	6	5., 5., 10., 20., 40., 80.	-	-	7/2	M

**Description:** The minimum speed of the current gear stage is configured in MD35140 \$MA\_GEAR\_STEP\_MIN\_VELO\_LIMIT. The minimum speed is applied only if the spindle is in speed control mode. The speed setpoints generated taking the override into account do not undershoot the minimum speed.

Note:

- If an S value lower than the minimum speed is programmed, the setpoint speed is increased to the minimum speed.
- The NC/PLC interface signal "Setpoint speed increased" is set to indicate that the speed has been increased.
- The minimum speed entered here has no effect on the automatic gear stage selection M40 S..
- The lower switching threshold for the automatic gear stage selectionM40 is configured in MD35120 \$MA\_GEAR\_STEP\_MIN\_VELO.

Not relevant for:

- Spindle oscillation mode(gear stage change)
- Positioning and axis spindle modes
- Signals which cause the spindle to stop

Related to:

MD35130 \$MA\_GEAR\_STEP\_MAX\_VELO\_LIMIT (maximum speed of gear stage with speed control)  
 MD35135 \$MA\_GEAR\_STEP\_PC\_MAX\_VELO\_LIMIT (maximum speed of gear stage with position control)  
 MD35010 \$MA\_GEAR\_STEP\_CHANGE\_ENABLE (gear stage change is possible)  
 MD35110 \$MA\_GEAR\_STEP\_MAX\_VELO (max. speed for automatic gear stage selection M40)  
 MD35120 \$MA\_GEAR\_STEP\_MIN\_VELO (min. speed for automatic gear stage selection M40)

35150	SPIND_DES_VELO_TOL			A03, A05, A06, A10, A04	R1,S1,Z1	
-	Spindle speed tolerance			DOUBLE	Reset	
-						
-	-	0.1	0.0	1.0	7/2	M

**Description:** In spindle control mode, the set speed (programmed speed x spindle offset, allowing for limits) is compared with the actual speed.

- If the actual speed deviates from the set speed by more than MD35150 \$MA\_SPIND\_DES\_VELO\_TOL, the NC/PLC interface signal is DB31, ... DBX83.5 (Spindle in setpoint range) is set to zero.

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- If the actual speed deviates from the set speed by more than MD35150 \$MA\_SPIND\_DES\_VELO\_TOL, the path feed is disabled (positioning axes continue traversing).
- If the actual speed exceeds the maximum spindle speed (MD35100 \$MA\_SPIND\_VELO\_LIMIT) by more than MD35150 \$MA\_SPIND\_DES\_VELO\_TOL, the NC/PLC interface signal is DB31, ... DBX83.0 (Speed limit exceeded) is enabled and alarm 22050 "Maximum speed reached" is output. All axes and spindles on the channel are decelerated.

MD irrelevant to:

- Spindle oscillation mode
- Spindle positioning mode

Example:

MD 35150 \$MA\_SPIND\_DES\_VELO\_TOL = 0.1

The actual spindle speed must not deviate from the set speed by more than +/- 10%.

Related to:

MD35500 \$MA\_SPIND\_ON\_SPEED\_AT\_IPO\_START  
(feed enable for spindle in setpoint range)

MD35100 \$MA\_SPIND\_VELO\_LIMIT  
(maximum spindle speed)

NC/PLC interface signal DB31, ... DBX83.5 (Spindle in setpoint range)

NC/PLC interface signal DB31, ... DBX83.0 (Speed limit exceeded)

Alarm 22050 "Maximum speed reached"

35160	SPIND_EXTERN_VELO_LIMIT			A06, A04	A3,S1,V1,Z1	
rev/min	Spindle speed limitation from PLC			DOUBLE	NEW CONF	
CTEQ						
-	-	1000.0	1.0e-6	-	7/2	M

**Description:** A limiting value for the maximum spindle speed is entered in MD35160 \$MA\_SPIND\_EXTERN\_VELO\_LIMIT, which is taken into account exactly when the NC/PLC interface signal DB31, ... DBX3.6 (Velocity/speed limitation) is set. The control limits a spindle speed which is too high to this value.

35200	GEAR_STEP_SPEEDCTRL_ACCEL			A06, A11, A04, -	S1	
rev/s <sup>2</sup>	Acceleration in speed control mode			DOUBLE	NEW CONF	
CTEQ						
-	6	30.0, 30.0, 25.0, 20.0, 15.0, 10.0	1.0e-7	-	7/2	M

**Description:** If the spindle is in speed control mode, the acceleration is entered in MD35200 \$MA\_GEAR\_STEP\_SPEEDCTRL\_ACCEL. The spindle is in speed control mode with the function SPCOF. Special cases: The acceleration in speed control mode (MD35200 \$MA\_GEAR\_STEP\_SPEEDCTRL\_ACCEL) can be set so that the electric current limit is reached. Related to: MD35210 \$MA\_GEAR\_STEP\_POSCTRL\_ACCEL (acceleration in position control mode) MD35220 \$MA\_ACCEL\_REDUCTION\_SPEED\_POINT (speed limit for reduced acceleration)

35210	GEAR_STEP_POSCTRL_ACCEL			A06, A11, A04, -	S1	
rev/s <sup>2</sup>	Acceleration in position control mode			DOUBLE	NEW CONF	
CTEQ						
-	6	30.0, 30.0, 25.0, 20.0, 15.0, 10.0	1.0e-7	-	7/2	M

**Description:** The acceleration in position control mode must be set so that the electric current limit is not reached.

Related to:

MD35200 \$MA\_GEAR\_STEP\_SPEEDCTRL\_ACCEL

MD35212 \$MA\_GEAR\_STEP\_POSCTRL\_ACCEL2

35212	GEAR_STEP_POSCTRL_ACCEL2			A06, A11, A04, -	S1	
rev/s <sup>2</sup>	2nd data set: Acceleration in position control mode			DOUBLE	NEW CONF	
CTEQ						
-	6	30.0, 30.0, 25.0, 20.0, 15.0, 10.0	1.0e-3	-	2/2	M

**Description:** Second gear stage data set for maximum acceleration capability of the gear stages in position control mode.

The acceleration in position control mode must be set so that the electric current limit is not reached.

The 2nd data set for tapping with G331/G332 is activated by MD35010 \$MA\_GEAR\_STEP\_CHANGE\_ENABLE, bit 5 for the master spindle.

Related to:

MD35210 \$MA\_GEAR\_STEP\_POSCTRL\_ACCEL

MD35200 \$MA\_GEAR\_STEP\_SPEEDCTRL\_ACCEL

MD35220 \$MA\_ACCEL\_REDUCTION\_SPEED\_POINT

35220	ACCEL_REDUCTION_SPEED_POINT			A06, A04	S1,S3,B2	
-	Speed for reduced acceleration			DOUBLE	Reset	
-						
-	-	1.0	0.0	1.0	7/2	M

**Description:** This machine data defines the threshold speed/velocity for spindles/positioning/path axes from which the acceleration reduction is to start. The reference is the defined maximum speed/velocity. The starting point is a percentage of the maximum values.

Example: MD35220 \$MA\_ACCEL\_REDUCTION\_SPEED\_POINT = 0.7, the maximum speed is 3000 rpm. Acceleration reduction starts at  $v_{on} = 2100$  rpm, i.e. the maximum acceleration capacity is utilized in the speed range 0...2099.99 rpm. Reduced acceleration is used from 2100 rpm to the maximum speed.

Related to:

MD32000 \$MA\_MAX\_AX\_VELO

(maximum axis velocity)

MD35130 \$MA\_GEAR\_STEP\_MAX\_VELO\_LIMIT

(maximum gear stage speed)

MD35230 \$MA\_ACCEL\_REDUCTION\_FACTOR

(reduced acceleration)

35230	ACCEL_REDUCTION_FACTOR	A06, A04			S1,S3,B2	
-	Reduced acceleration	DOUBLE			Reset	
CTEQ						
-	-	0.0	0.0	0.95	7/2	M

**Description:** The machine data contains the factor by which the acceleration of the spindle/positioning/path axes is reduced with reference to the maximum speed/velocity. The acceleration is reduced by this factor between the threshold speed/velocity defined in MD35220 \$MA\_ACCEL\_REDUCTION\_SPEED\_POINT and the maximum speed/velocity.

Example:

$a = 10 \text{ rev/s}^2$ ,  $v_{on} = 2100 \text{ rpm}$ , MD35230 \$MA\_ACCEL\_REDUCTION\_FACTOR = 0.3.

Acceleration and deceleration take place within the speed range 0...2099.99 rpm with an acceleration of  $10 \text{ rev/s}^2$ . From a speed of 2100 rpm up to the maximum speed, the acceleration is reduced from  $10 \text{ rev/s}^2$  to  $7 \text{ rev/s}^2$ .

MD irrelevant to:

Errors that lead to rapid stop.

Related to:

MD32300 \$MA\_MAX\_AX\_ACCEL (axis acceleration)

MD35200 \$MA\_GEAR\_STEP\_SPEEDCTRL\_ACCEL

(acceleration in speed control mode)

MD35210 \$MA\_GEAR\_STEP\_POSCTRL\_ACCEL

(acceleration in position control mode)

MD35242 \$MA\_ACCEL\_REDUCTION\_SPEED\_POINT

(speed for reduced acceleration)

35240	ACCEL_TYPE_DRIVE	A04			B1,B2	
-	Acceleration curve DRIVE for axes ON/OFF	BOOLEAN			Reset	
CTEQ						
-	-	FALSE	-	-	7/2	M

**Description:** Basic setting of the acceleration response of the axis (positioning, oscillation, JOG, path motions):

FALSE: No acceleration reduction

TRUE: Acceleration reduction active

MD is active only when MD32420 \$MA\_JOG\_AND\_POS\_JERK\_ENABLE = FALSE.

The settings in MD35220 \$MA\_ACCEL\_REDUCTION\_SPEED\_POINT and MD35230 \$MA\_ACCEL\_REDUCTION\_FACTOR are always active for spindles (in spindle mode).

Remark:

This MD also influences the path motion with SOFT, BRISK, TRAFO

35242	ACCEL_REDUCTION_TYPE	A04			B1,B2	
-	Type of acceleration reduction	BYTE			Reset	
CTEQ						
-	-	1	0	2	7/2	M

**Description:** Shape of acceleration reduction characteristic with DRIVE velocity control

0: Constant

1: Hyperbolic

2: Linear



35300	SPIND_POSCTRL_VELO			A06, A04	P3 pl,P3 sl,R1,S1	
rev/min	Position control activation speed			DOUBLE	NEW CONF	
CTEQ						
-	6	500.0, 500.0, 500.0, 500.0, 500.0, 500.0	-	-	7/2	M

**Description:**

When positioning a spindle that is not in position control mode from a high speed, the position control is not activated until the spindle has reached or falls below the velocity defined in MD35300 \$MA\_SPIND\_POSCTRL\_VELO.

The speed can be changed with FA[Sn] from the part program. Please refer to the documentation:

/FB1/ Function Manual, Basic Functions; Spindles (S1), section "Spindle mode 'positioning operation" for a description of the spindle behavior under various supplementary conditions (positioning from rotation, positioning from standstill).

**Note:**

The active speed from MD35300 \$MA\_SPIND\_POSCTRL\_VELO cannot exceed the max. speed set in MD35135 \$MA\_GEAR\_STEP\_PC\_MAX\_VELO\_LIMIT. If MD35135 \$MA\_GEAR\_STEP\_PC\_MAX\_VELO\_LIMIT = 0, the value is limited to 90% of MD35130 \$MA\_GEAR\_STEP\_MAX\_VELO\_LIMIT.

**Related to:**

MD35350 \$MA\_SPIND\_POSITIONING\_DIR (direction of rotation during positioning from standstill, if no synchronization is available)

MD35100 \$MA\_SPIND\_VELO\_LIMIT (chuck speed)

35310	SPIND_POSIT_DELAY_TIME			A06, A04	S1	
s	Positioning delay time			DOUBLE	NEW CONF	
CTEQ						
-	6	0.0, 0.05, 0.1, 0.2, 0.4, 0.8	-	-	7/2	M

**Description:**

Positioning delay time.

After reaching the positioning end (exact stop fine), there is a waiting time equal to the time set in this MD. The position matching the currently set gear stage is selected.

The delay time is activated for:

- Gear stage change at defined spindle position. After reaching the position configured in MD35012 \$MA\_GEAR\_STEP\_CHANGE\_POSITION, there is a waiting period equal to the time specified here. After expiry of this time, the position control is switched off for an active direct measuring system, and the NC/PLC interface signals DB31, ... DBX82.3 (Change gear) and DB31, ... DBX82.0 - .2 (Setpoint gear stage A-C) are output.
- Block search upon the output of an accumulated positioning block (SPOS, SPOSA, M19).

35350	SPIND_POSITIONING_DIR			A06	S1	
-	Direction of rotation when positioning			BYTE	Reset	
CTEQ						
-	-	3	3	4	7/2	M

**Description:**

When SPOS or SPOSA is programmed, the spindle is switched to position control mode and accelerates with the acceleration defined in MD35210 \$MA\_GEAR\_STEP\_POSCTRL\_ACCEL (acceleration in position control mode) if the spindle is not synchronized. The direction of rotation is defined

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by MD35350 \$MA\_SPIND\_POSITIONING\_DIR (direction of rotation for positioning from standstill).

MD35350 \$MA\_SPIND\_POSITIONING\_DIR = 3 ---> Clockwise direction of rotation

MD35350 \$MA\_SPIND\_POSITIONING\_DIR = 4 ---> Counterclockwise direction of rotation

Related to:

MD35300 \$MA\_SPIND\_POSCTRL\_VELO (position control activation speed)

35400	SPIND_OSCILL_DES_VELO	A06, A04	P3 pl,P3 sl,S1
rev/min	Oscillation speed	DOUBLE	NEW CONF
CTEQ			
-	-	500.0	- - - 7/2 M

**Description:** During oscillation, the NC/PLC interface signal DB31, ... DBX18.5 (Oscillation speed) is used to select a motor speed for the spindle motor. This motor speed is defined in MD35400 \$MA\_SPIND\_OSCILL\_DES\_VELO. The motor speed defined in this MD is independent of the current gear stage. In the AUTOMATIC and MDI displays, the oscillation speed is displayed in the "Spindle set-point" window until the gear is changed.

MD irrelevant to:

All spindle modes except oscillation mode

Special cases:

The acceleration during oscillation (MD35410 \$MA\_SPIND\_OSCILL\_ACCEL) is valid for the oscillation speed defined in this MD.

Related to:

MD35410 \$MA\_SPIND\_OSCILL\_ACCEL (acceleration during oscillation)

NC/PLC interface signal DB31, ... DBX18.5 (Oscillation speed)

NC/PLC interface signal DB31, ... DBX18.4 (Oscillation via PLC)

35410	SPIND_OSCILL_ACCEL	A06, A04, -	S1,Z1
rev/s <sup>2</sup>	Acceleration during oscillation	DOUBLE	NEW CONF
CTEQ			
-	-	16.0	1.0e-7 - - 7/2 M

**Description:** The acceleration specified here is only effective for the output of the oscillation speed (MD35400 \$MA\_SPIND\_OSCILL\_DES\_VELO) to the spindle motor. The oscillation speed is selected using the NC/PLC interface signal DB31, ... DBX18.5 (Oscillation speed).

MD irrelevant to:

All spindle modes except oscillation mode

Related to:

MD35400 \$MA\_SPIND\_OSCILL\_DES\_VELO (oscillation speed)

NC/PLC interface signal DB31, ... DBX18.5 (Oscillation speed)

NC/PLC interface signal DB31, ... DBX18.4 (Oscillation via PLC)

35430	SPIND_OSCILL_START_DIR	A06	S1
-	Start direction during oscillation	BYTE	Reset
CTEQ			
-	-	0	0 4 7/2 M

**Description:** With the NC/PLC interface signal DB31, ... DBX18.5 (Oscillation speed), the spindle motor accelerates to the speed specified in MD35400: \$MA\_SPIND\_OSCILL\_DES\_VELO.

The start direction is defined by MD35430 \$MA\_SPIND\_OSCILL\_START\_DIR if the NC/PLC interface signal DB31, ... DBX18.4 (Oscillation via PLC) is not enabled.

MD35430 \$MA\_SPIND\_OSCILL\_START\_DIR = 0 ---> Start direction same as the last direction of rotation

MD35430 \$MA\_SPIND\_OSCILL\_START\_DIR = 1 ---> Start direction counter to the last direction of rotation

MD35430 \$MA\_SPIND\_OSCILL\_START\_DIR = 2 ---> Start direction counter to the last direction of rotation

MD35430 \$MA\_SPIND\_OSCILL\_START\_DIR = 3 ---> Start direction is M3

MD35430 \$MA\_SPIND\_OSCILL\_START\_DIR = 4 ---> Start direction is M4

MD irrelevant to:

All spindle modes except oscillation mode

Related to:

MD35400 \$MA\_SPIND\_OSCILL\_DES\_VELO (oscillation speed)

NC/PLC interface signal DB31, ... DBX18.5 (Oscillation speed)

NC/PLC interface signal DB31, ... DBX18.4 (Oscillation via PLC)

35440	SPIND_OSCILL_TIME_CW	A06	S1,Z1
s	Oscillation time for M3 direction	DOUBLE	NEW CONF
CTEQ			
-	-	1.0	-
			7/2 M

**Description:** The oscillation time defined here is active in the M3 direction.

MD irrelevant to:

- All spindle modes except oscillation mode
- Oscillation via PLC (NC/PLC interface signal DB31, ... DBX18.4 (Oscillation via PLC) enabled)

Related to:

MD35450 \$MA\_SPIND\_OSCILL\_TIME\_CCW (oscillation time for M4 direction)

MD10070 \$MN\_IPO\_SYSCLOCK\_TIME\_RATIO (interpolator cycle)

NC/PLC interface signal DB31, ... DBX18.5 (Oscillation speed)

NC/PLC interface signal DB31, ... DBX18.4 (Oscillation via PLC)

35450	SPIND_OSCILL_TIME_CCW	A06	S1,Z1
s	Oscillation time for M4 direction	DOUBLE	NEW CONF
CTEQ			
-	-	0.5	-
			7/2 M

**Description:** The oscillation time defined here is active in the M4 direction.

MD irrelevant to:

- All spindle modes except oscillation mode
- Oscillation via PLC (NC/PLC interface signal DB31, ... DBX18.4 (Oscillation via PLC) enabled)

Related to:

MD35440 \$MA\_SPIND\_OSCILL\_TIME\_CW (oscillation time for M3 direction)

MD10070 \$MN\_IPO\_SYSCLOCK\_TIME\_RATIO (interpolator cycle)

NC/PLC interface signal DB31, ... DBX18.5 (Oscillation speed)

NC/PLC interface signal DB31, ... DBX18.4 (Oscillation via PLC)

35500	SPIND_ON_SPEED_AT_IPO_START			A03, A06, A10	S1,Z1	
-	Feedrate enable for spindle in the set range			BYTE	Reset	
CTEQ						
-	-	1	0	2	7/2	M

**Description:**

For SW 4.2 and higher:

Byte = 0:

The path interpolation is not affected

Byte = 1:

The path interpolation is not enabled (positioning axes continue traversing) until the spindle has reached the specified speed. The tolerance range can be set in MD 35150: \$MA\_SPIND\_DES\_VELO\_TOL. If a measuring system is active, then the actual speed is monitored, otherwise the set speed. Path axes traversing in continuous-path mode (G64) are not stopped.

Byte = 2:

In addition to 1, traversing path axes are also stopped before machining begins, e.g. continuous-path mode (G64) and the change from rapid traverse (G0) to a machining block (G1, G2,...). The path is stopped at the last G0 block, and does not start traversing until the spindle is within the set speed range.

Restriction:

If the spindle is newly programmed by the PLC (FC18) or a synchronized action "shortly" before the end of the last G0 block, then the path decelerates taking the dynamic limitations into account. Because the spindle programming is asynchronous, a traverse can be made into the machining block if necessary. If the spindle has reached the setpoint speed range, then machining starts from this position.

Byte = 3:

No longer available for SW 5.3 and higher.

Related to:

MD35150 \$MA\_SPIND\_DES\_VELO\_TOL (spindle speed tolerance)

NC/PLC interface signal DB31, ... DBX83.5 (Spindle in setpoint range)

35510	SPIND_STOPPED_AT_IPO_START			A03, A06, A10	S1	
-	Feedrate enable for spindle stopped			BOOLEAN	Reset	
CTEQ						
-	-	FALSE	-	-	7/2	M

**Description:**

When a spindle is stopped (M5), the path feed is disabled (positioning axes continue traversing) if MD35510 \$MA\_SPIND\_STOPPED\_AT\_IPO\_START is enabled and the spindle is in control mode.

When the spindle has come to a standstill (NC/PLC interface signal DB31, ... DBX61.4 (Axis/spindle stationary) enabled), the path feed is enabled.

Related to:

MD35500 \$MA\_SPIND\_ON\_SPEED\_AT\_IPO\_START (feed enable for spindle in setpoint range)

35550	DRILL_VELO_LIMIT		A06, A11, A04	-		
rev/min	Maximum speeds for tapping		DOUBLE	NEW CONF		
CTEQ						
-	6	10000., 10000., 10000., 10000., 10000., 10000.	0.1	-	7/2	M

**Description:** Limit speed values for tapping without compensating chuck with G331/G332. The maximum speed of the linear motor characteristic range (constant acceleration capacity) must be specified depending on the gear stage.

35590	PARAMSET_CHANGE_ENABLE		EXP, A05	TE3,A2,S1,Z1		
-	Parameter set can be changed		BYTE	PowerOn		
CTEQ						
-	-	0	0	2	7/2	M

**Description:** 0: Parameter set changes cannot be controlled.

For axes and spindles in axis mode: The first parameter set is always active. In the case of spindles the parameter set is set as appropriate for the gear stage (1st gear stage uses 2nd parameter set). Exceptions: See below.

1: The parameter set applied in the servo is defined via the VDI interface or SCPARA. Parameter sets 1 to 6 can be selected. Sets are selected using the NC/PLC interface signal DB31, ... DBX9.0 - .2 (selection of parameter set servo A, B, C) in the binary-coded value range 0 to 5. Binary values 6 and 7 select parameter set no. 6. Exceptions: See below.

For 0 and 1:

With G33, G34, G35, G331, G332, the parameter set number for the axes involved is activated in accordance with the master spindle gear stage, increased by one (corresponds with parameter set numbers 2 to 6).

For spindles, parameter sets 2 to 6 are always active, depending on the set gear stage plus one.

2: The parameter set is only ever defined via the VDI interface or SCPARA. Parameter sets 1 to 6 can be selected. Sets are selected using the NC/PLC interface signal DB31, ... DBX9.0 - .2 (selection of parameter set servo A, B, C) in the binary-coded value range 0 to 5. Binary values 6 and 7 select parameter set no. 6.

Secondary conditions:

Changeover response is determined by whether the KV factor differs between the active parameter set and the new parameter set.

Changing a parameter set where the load gearbox factors differ between the active parameter set and the new parameter set will reset the referenced signal, provided that the axis has an indirect measuring system.

The parameter set contains the following axial machine data:

```
MD36200 $MA_AX_VELO_LIMIT
MD32200 $MA_POSCTRL_GAIN
MD32800 $MA_EQUIV_CURRCTRL_TIME
MD32810 $MA_EQUIV_SPEEDCTRL_TIME
MD32910 $MA_DYN_MATCH_TIME
MD31050 $MA_DRIVE_AX_RATIO_DENOM
MD31060 $MA_DRIVE_AX_RATIO_NUMERA
```

1.3 NC machine data

Corresponds with:

NC/PLC interface signals DB31, ... DBX9.0 - .2 (selection of parameter set servo A, B, C) and DB31, ... DBX69.0 - .2 (selected parameter set servo A, B, C)

References:

/FB/, H2, "Output of Auxiliary Functions to PLC"

36000	STOP_LIMIT_COARSE			A05	TE1,A3,B1,G2,S1,Z1	
mm, degrees	Exact stop coarse			DOUBLE	NEW CONF	
-						
-	-	0.04, 0.04, 0.04, 0.04, 0.04, 0.04, 0.04...	-	-	7/2	M

**Description:**

Threshold for exact stop coarse

An NC block is considered as terminated if the actual position of the path axes is away from the setpoint position by the value entered for the exact stop limit. If the actual position of a path axis is not within this limit, the NC block is considered as not terminated, and further part program execution is not possible. The magnitude of the value entered influences the transition to the next block. The larger the value, the earlier the block change is initiated.

If the specified exact stop limit is not reached, then

- the block is considered as not terminated,
- further traversing of the axis is not possible,
- alarm 25080 Positioning monitoring is output after expiry of the time specified in MD36020 \$MA\_POSITIONING\_TIME (monitoring time for exact stop fine),
- the direction of movement +/- is indicated for the axis in the positioning display. The exact stop window is also evaluated for spindles in position control mode (SPCON instruction).

Special cases:

MD36000 \$MA\_STOP\_LIMIT\_COARSE must not be set smaller than MD36010 \$MA\_STOP\_LIMIT\_FINE (exact stop fine). To achieve the identical block change behavior as with the "exact stop fine" criterion, the exact stop coarse window may be identical to the exact stop fine window. MD36000 \$MA\_STOP\_LIMIT\_COARSE must not be set equal to or greater than MD36030 \$MA\_STANDSTILL\_POS\_TOL (standstill tolerance).

Related to:

MD36020 \$MA\_POSITIONING\_TIME (delay time, exact stop fine)

36010	STOP_LIMIT_FINE			A05	TE1,A3,B1,D1,G2,S1,Z1	
mm, degrees	Exact stop fine			DOUBLE	NEW CONF	
-						
-	-	0.01, 0.01, 0.01, 0.01, 0.01, 0.01, 0.01...	-	-	7/2	M

**Description:**

Threshold for exact stop fine

See also MD36000 \$MA\_STOP\_LIMIT\_COARSE (exact stop coarse)

Special cases:

MD36010 \$MA\_STOP\_LIMIT\_FINE must not be set greater than MD36000 \$MA\_STOP\_LIMIT\_COARSE (exact stop coarse).  
MD36010 \$MA\_STOP\_LIMIT\_FINE must not be set greater than or equal to MD36030 \$MA\_STANDSTILL\_POS\_TOL (standstill tolerance).

Related to:

MD 36020: \$MA\_POSITIONING\_TIME (delay time, exact stop fine)

36012	STOP_LIMIT_FACTOR	A05	G1,A3,B1,G2,S1,Z1
-	Factor for exact stop coarse/fine and standstill	DOUBLE	NEW CONF
-			
-	6	1.0, 1.0, 1.0, 1.0, 1.0, 1.0	0.001
-		1000.0	7/2
-			M

**Description:**

With this factor,

MD36000 \$MA\_STOP\_LIMIT\_COARSE,

MD36010 \$MA\_STOP\_LIMIT\_FINE,

MD36030 \$MA\_STANDSTILL\_POS\_TOL

can be re-assessed as a function of the parameter set. The relationship between these three values always remains the same.

Application examples:

Adapting the positioning behavior if the mass relationships change significantly with a gear change, or if it is desired to save on machine positioning time at the cost of accuracy in various operating conditions.

Related to:

MD36000 \$MA\_STOP\_LIMIT\_COARSE,

MD36010 \$MA\_STOP\_LIMIT\_FINE,

MD36030 \$MA\_STANDSTILL\_POS\_TOL

36020	POSITIONING_TIME	A05	TE1,A3,B1,G2
s	Delay time exact stop fine	DOUBLE	NEW CONF
-			
-	-	1.0	-
-			7/2
-			M

**Description:**

The following error must have reached the limit value for exact stop fine by the expiry of the time entered in this MD for traveling into the position (position setpoint has reached the destination).

The current following error is therefore continuously monitored for the time limit MD36010 \$MA\_STOP\_LIMIT\_FINE. If this time is exceeded, alarm 25080 "Positioning monitoring" is output, and the axis stopped. The time entered in this MD should be long enough to ensure that the monitoring function is not triggered under normal operating conditions, taking into account any settling times.

Related to:

MD 36010: \$MA\_STOP\_LIMIT\_FINE (exact stop fine)

36030	STANDSTILL_POS_TOL	A05	G1,A3,D1,G2
mm, degrees	Standstill tolerance	DOUBLE	NEW CONF
-			
-	-	0.2, 0.2, 0.2, 0.2, 0.2, 0.2, 0.2, 0.2...	-
-			7/2
-			M

**Description:**

This MD serves as a tolerance band for the following monitoring functions:

- After termination of a traversing block (position partial setpoint=0 at the end of the movement), whether the following error has reached the limit value for MD36030 \$MA\_STANDSTILL\_POS\_TOL (standstill tolerance) is monitored after the programmable MD36040 \$MA\_STANDSTILL\_DELAY\_TIME (delay time, standstill monitoring).

1.3 NC machine data

- After termination of a positioning action (exact stop fine reached), positioning monitoring is replaced by standstill monitoring. The axis is monitored for moving from its position by more than defined in MD36030 \$MA\_STANDSTILL\_POS\_TOL (standstill tolerance).

If the setpoint position is over- or undershot by the standstill tolerance, alarm 25040 "Standstill monitoring" is output and the axis stopped.

Special cases:

The standstill tolerance must be greater than the "exact stop limit coarse".

Related to:

MD36040 \$MA\_STANDSTILL\_DELAY\_TIME (delay time, standstill monitoring)

36040	STANDSTILL_DELAY_TIME	A05	TE1,A3,F1,G2
s	Delay time for standstill monitoring	DOUBLE	NEW CONF
-			
-	-	0.4	-
-	-	-	7/2 M

**Description:** See MD36030 \$MA\_STANDSTILL\_POS\_TOL (standstill tolerance)

36042	FOC_STANDSTILL_DELAY_TIME	A05	F1
s	Delay time for standstill monitoring w/ active torque or force limitation.	DOUBLE	NEW CONF
-			
-	-	0.4	-
-	-	-	7/2 M

**Description:** Only for PROFIdrive telegrams including a torque/force limiting value: Waiting time between the end of a movement and activation of standstill monitoring with active torque/force limitation.

If the configurable end of block criterion occurs within this time, then standstill monitoring is activated.

36050	CLAMP_POS_TOL	A05	A3,D1,Z1
mm, degrees	Clamping tolerance	DOUBLE	NEW CONF
-			
-	-	0.5	-
-	-	-	7/2 M

**Description:** With NC/PLC interface signal DB31, ... DBX2.3 (Blocking action active), blocking monitoring is activated. If the monitored axis is forced away from the setpoint position (exact stop limit) by more than the blocking tolerance, alarm 26000 "Blocking monitoring" is output and the axis stopped.

Threshold value for clamping tolerance (half width of window).

Special cases:

The clamping tolerance must be greater than the "exact stop limit coarse".

Related to:

NC/PLC interface signal DB31, ... DBX2.3 (Blocking action active)

36052	STOP_ON_CLAMPING	A10	A3
-	Special functions with clamped axis	BYTE	NEW CONF
CTEQ			
-	-	0	0
-	-	0x07	2/1 M

**Description:** This MD defines how a blocked axis is taken into account.

Bit 0 =0:

If a blocked axis is to be traversed again in continuous-path mode, it must be ensured via the part program that the path axes are stopped and that there is time for releasing the blockage.



Bit 0 =1:

If a blocked axis is to be traversed again in continuous-path mode, the LookAhead function stops the path motion if required until the position controller is allowed to traverse the blocked axis again, i.e. until the controller enable is set again.

Bit 1 is relevant only if bit 0 is set:

Bit 1 =0:

If a blocked axis is to be traversed again in continuous-path mode, the LookAhead function does not release the blockage.

Bit 1 =1:

If a blocked axis is to be traversed again in continuous-path mode, a traversing command for the blocked axis is given in the preceding G0 blocks so that the PLC releases the axis blockage again.

Bit 2 =0:

If an axis is to be blocked in continuous-path mode, it must be ensured in the part program that the path axes are stopped to make sure that there is time for setting the blockage.

Bit 2 =1:

If an axis is to be blocked in continuous-path mode, the LookAhead function stops the path motion prior to the next non-G0 block, if the axis has not yet been blocked by that time, i.e. the PLC has not yet set the feedrate override to zero.

36060	STANDSTILL_VELO_TOL			A05, A04	TE1,A2,A3,D1,Z1	
mm/min, rev/min	Threshold velocity/speed 'Axis/spindle in stop'			DOUBLE	NEW CONF	
-						
-	-	5.00, 5.00, 5.00, 5.00, 5.00, 5.00, 5.00...	-	-	7/2	M

**Description:** This MD defines the standstill range for the axis velocity / spindle speed. If the current actual velocity of the axis or the actual speed of the spindle is less than the value entered in this MD, the NC/PLC interface signal DB31, ... DBX61.4 (Axis/spindle stationary) is set.

To bring the axis/spindle to a standstill under control, the pulse enable should not be removed until the axis/spindle is at a standstill. Otherwise the axis will coast down.

Related to:

NC/PLC interface signal DB31, ... DBX61.4 (Axis/spindle stationary)

36100	POS_LIMIT_MINUS			A03, A05, A11,	TE1,R2,T1,A3,Z1	
mm, degrees	1st software limit switch minus			DOUBLE	NEW CONF	
CTEQ						
-	-	-1.0e8	-	-	7/2	M

**Description:** Same meaning as 1st software limit switch plus, however the traversing range limitation is in the negative direction.

The MD becomes active after reference point approach if the NC/PLC interface signal DB31, ... DBX12.2 (2nd software limit switch minus) is not set.

MD irrelevant:

if axis is not referenced.

Related to:

NC/PLC interface signal DB31, ... DBX12.2 (2nd software limit switch minus)

36110	POS_LIMIT_PLUS	A03, A05, A11,	TE1,R2,T1,G2,A3,Z1
mm, degrees	1st software limit switch plus	DOUBLE	NEW CONF
CTEQ			
-	-	1.0e8	-
			7/2
			M

**Description:** A software limit switch can be activated in addition to the hardware limit switch. The absolute position in the machine axis system of the positive range limit of each axis is entered.

The MD is active after reference point approach if NC/PLC interface signal DB31, ... DBX12.3 (2nd software limit switch plus) has not been set.

MD irrelevant:

if axis is not referenced.

Related to:

NC/PLC interface signal DB31, ... DBX12.3 (2nd software limit switch plus)

36120	POS_LIMIT_MINUS2	A03, A05, -	TE1,A3,Z1
mm, degrees	2nd software limit switch minus	DOUBLE	NEW CONF
CTEQ			
-	-	-1.0e8	-
			7/2
			M

**Description:** Same meaning as 2nd software limit switch plus, but the traversing range limitation is in the negative direction.

The PLC can select whether software limit switch 1 or 2 is to be active by means of the interface signal.

For example:

DB31, ... DBX12.2 = 0 (1st software limit switch minus) active for 1st axis

DB31, ... DBX12.2 = 1 (2nd software limit switch minus) active for 1st axis

MD irrelevant:

if axis is not referenced.

Related to:

NC/PLC interface signal DB31, ... DBX12.2 (2nd software limit switch minus)

36130	POS_LIMIT_PLUS2	A03, A05, -	TE1,A3,Z1
mm, degrees	2nd software limit switch plus	DOUBLE	NEW CONF
CTEQ			
-	-	1.0e8	-
			7/2
			M

**Description:** This machine data can define a 2nd software limit switch position in the positive direction in the machine axis system. The PLC can select which of the two software limit switches 1 or 2 is to be active by means of an interface signal.

For example:

DB31, ... DBX12.3 = 0 (1st software limit switch plus) active for 1st axis

DB31, ... DBX12.3 = 1 (2nd software limit switch plus) active for 1st axis

MD irrelevant:

if axis is not referenced.

Related to:

NC/PLC interface signal DB31, ... DBX12.3 (2nd software limit switch plus)

36200	AX_VELO_LIMIT			A05, A11, A04	TE3,A3,G2,S1,V1	
mm/min, rev/ min	Threshold value for velocity monitoring			DOUBLE	NEW CONF	
CTEQ						
-	6	11500., 11500., 11500., 11500., 11500., 11500...	-	-	7/2	M

**Description:** The threshold value for actual velocity monitoring is entered in this machine data.

If the axis has at least one active encoder and if this encoder is below its limit frequency, alarm 25030 "Actual velocity alarm limit" is triggered when the threshold value is exceeded, and the axis is stopped.

Settings:

- For axes, a value should be selected that is 10 to 15 % higher than that in MD32000 \$MA\_MAX\_AX\_VELO (maximum axis velocity). With active temperature compensation MD32750 \$MA\_TEMP\_COMP\_TYPE, the maximum axis velocity is increased by an additional factor which is determined by MD32760 \$MA\_COMP\_ADD\_VELO\_FACTOR (velocity overshoot through compensation). The following should therefore apply to the velocity monitoring threshold value:

$$\text{MD36200 } \$\text{MA\_AX\_VELO\_LIMIT}[n] > \text{MD32000 } \$\text{MA\_MAX\_AX\_VELO} * (1.1 \dots 1.15 + \text{MD32760 } \$\text{MA\_COMP\_ADD\_VELO\_FACTOR})$$

- For spindles, a value should be selected for each gear stage that is 10 to 15 % higher than the corresponding values in MD35130 \$MA\_GEAR\_STEP\_MAX\_VELO\_LIMIT[n] (maximum speed of gear stage).

The index of the machine data has the following coding: [control parameter set no.]: 0-5

36210	CTRLOUT_LIMIT			EXP, A05	A3,D1,G2	
%	Maximum speed setpoint			DOUBLE	NEW CONF	
CTEQ						
-	1	110.0	0	200	7/2	M

**Description:** This MD defines the maximum speed setpoint in percent. 100% is the maximum speed setpoint, this corresponds to 10 V for an analog interface or the maximum speed for PROFIdrive drives (manufacturer-specific adjustable parameter in the drive, e.g. p1082 and, if applicable, p2000 for SINAMICS).

The maximum speed setpoint depends on whether there are any setpoint limitations in the speed and current controller.

An alarm is output and the axis is stopped when the limit is exceeded.

The limit is to be selected so that the maximum velocity (rapid traverse) can be reached, and an appropriate additional control margin is available.

36220	CTRLOUT_LIMIT_TIME			EXP, A05	A3	
s	Delay time for speed setpoint monitoring			DOUBLE	NEW CONF	
-						
-	1	0.0	-	-	7/2	M

**Description:** This MD defines how long the speed setpoint may be within the limit CTRLOUT\_LIMIT[n] (max. speed setpoint) until the monitoring function is triggered.

Monitoring (and with it also this machine data) is always active.

1.3 NC machine data

Reaching the limit renders the position control loop non-linear, which results in contour errors provided that the speed setpoint limited axis is participating in contour generation. That is why this MD has default value 0, i.e. the monitoring function responds as soon as the speed setpoint reaches the limit.

36300	ENC_FREQ_LIMIT			EXP, A02, A05, A06	A3,D1,R1,Z1	
-	Encoder limit frequency			DOUBLE	PowerOn	
-						
-	2	3.0e5, 3.0e5	-	-	7/2	M

**Description:** This MD is used to enter the encoder frequency, which, in general, is a manufacturer specification (type plate, documentation).  
 For PROFIdrive:  
 No automatic, software-internal limitation for encoders on the PROFIdrive drive; here, the limit values of the measuring circuit module depend on the drive hardware used, i.e. known only by the drive. Therefore, it is the user who is responsible for taking into account the limit frequency of the measuring circuit module.

36302	ENC_FREQ_LIMIT_LOW			EXP, A02, A05, A06	A3,R1,S1,Z1	
%	Encoder limit frequency for new encoder synchronization.			DOUBLE	NEW CONF	
-						
-	2	99.9, 99.9	0	100	7/2	M

**Description:** Encoder frequency monitoring uses a hysteresis.  
 MD36300 \$MA\_ENC\_FREQ\_LIMIT defines the encoder limit frequency. The encoder is switched off when this frequency is exceeded. The encoder is switched on again when the frequency falls below that defined in MD36302 \$MA\_ENC\_FREQ\_LIMIT\_LOW.  
 MD36300 \$MA\_ENC\_FREQ\_LIMIT is entered directly in Hertz, whereas MD36302 \$MA\_ENC\_FREQ\_LIMIT\_LOW is a fraction, expressed as a percentage, of MD36300 \$MA\_ENC\_FREQ\_LIMIT.  
 MD36302 \$MA\_ENC\_FREQ\_LIMIT\_LOW is therefore already correctly preset for most of the encoders used.  
 Exception: In the case of absolute encoders with an En-Dat interface, the limit frequency of the absolute track is significantly lower than the limit frequency of the incremental track. A low value in MD36302 \$MA\_ENC\_FREQ\_LIMIT\_LOW ensures that the encoder is not switched on again until it falls below the limit frequency of the absolute track, and therefore is not referenced until permitted by the absolute track. For spindles, this referencing is carried out automatically.  
 Example EnDat encoder EQN 1325:  
 Limit frequency of the electronics of the incremental track: 430 kHz  
 ==> MD36300 \$MA\_ENC\_FREQ\_LIMIT = 430 kHz  
 The limit frequency of the absolute track is approx. 2000 encoder rpm at 2048 increments/encoder revolution, i.e. the limit frequency is 2000/60 \* 2048 Hz = 68 kHz  
 ==> MD36302 \$MA\_ENC\_FREQ\_LIMIT\_LOW = 68/430 = 15%

36310	ENC_ZERO_MONITORING		EXP, A02, A05	A3,R1	
-	Zero mark monitoring		DWORD	NEW CONF	
-					
-	2	0, 0	-	-	7/2 M

**Description:**

This MD is used to activate zero mark monitoring.

For PROFIdrive drives (the corresponding diagnostics system variables are not currently supplied for incremental measuring systems):

For PROFIdrive, the permissible deviation must be set in the drive, \*not\* in the NC. Zero mark monitoring reported by the drive is mapped to the NCK according to the following rule:

0: no zero mark monitoring

100: no zero mark monitoring together with suppression of all encoder monitoring operations, i.e. not only alarm 25020 but also alarms 25000, 25010 etc. are suppressed.

>0 but less than 100: direct triggering of power ON alarm 25000 ( or 25001).

>100: attenuated error message: reset alarm 25010 (25011) is output instead of power ON alarm 25000 (25001).

For absolute measuring systems (\$MA\_ENC\_TYPE=4):

Permissible deviation in 1/2 coarse increments between the absolute and the incremental encoder track (one 1/2 coarse increment is sufficient).

If a SIMODRIVE611U drive type is used, monitoring only takes place at a standstill

36312	ENC_ABS_ZEROMON_WARNING		EXP, A02, A05	A3	
-	Zero mark monitoring warning level		DWORD	NEW CONF	
-					
-	2	10, 10	-	-	7/2 M

**Description:**

Only for absolute measuring systems (\$MA\_ENC\_TYPE=4):

This MD activates zero mark diagnostics.

0: no zero mark diagnostics

>0: permissible deviation in 1/2 coarse increments between the absolute and the incremental encoder track (one 1/2 coarse increment is sufficient).

36314	ENC_ABS_ZEROMON_INITIAL		EXP, A02, A05	A3	
-	Warning level for absolute encoder power ON		DWORD	NEW CONF	
-					
-	2	1000, 1000	-	-	7/2 M

**Description:**

Only for absolute measuring systems (\$MA\_ENC\_TYPE=4):

Parameterization in 1/2 coarse increments

At absolute encoder power ON (deselect parking and similar) this MD parameterizes the previously permissible position offset (comparison of the new absolute position with the information last saved in SRAM). When the warning level is exceeded, system variable \$VA\_ENC\_ZERO\_MON\_ERR\_CNT is incremented in coarse increments by the value 10000.

36400	CONTOUR_TOL			A05, A11	A3,D1,G2	
mm, degrees	Tolerance band for contour monitoring			DOUBLE	NEW CONF	
-						
-	-	1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0...	-	-	7/2	M

**Description:** Tolerance band for axial contour monitoring (dynamic following error monitoring).

The permissible deviation between the real and the modelled following error is entered in this MD.

The input of the tolerance band is intended to avoid spurious tripping of the dynamic following error monitoring caused by minor speed fluctuations, which occur during normal closed-loop control operations (e.g. during first cut).

Following error modelling and thus the input of this MD depend on the position control gain MD32200 \$MA\_POSCTRL\_GAIN and, in the case of precontrol or simulation, on the accuracy of the controlled system model MD32810 \$MA\_EQUIV\_SPEEDCTRL\_TIME (equivalent time constant for precontrol of speed control loop), as well as on the accelerations and velocities used.

36500	ENC_CHANGE_TOL			A02, A05	G1,K6,K3,A3,D1,G2,Z1	
mm, degrees	Tolerance at actual position value change.			DOUBLE	NEW CONF	
-						
-	-	0.1	-	-	7/2	M

**Description:** The permissible deviation between the actual values of the two measuring systems is entered in this MD.

This difference must not be exceeded when switching over the measuring system used for closed-loop control, in order to avoid compensating processes that are too strong. Otherwise, the error message 25100 "Axis %1 Switchover of measuring system not possible" is generated and the switchover does not take place.

MD irrelevant for:

MD30200 \$MA\_NUM\_ENCS = 0 or 1.

36510	ENC_DIFF_TOL			A02, A05	A3,G2	
mm, degrees	Tolerance of measuring system synchronization			DOUBLE	NEW CONF	
-						
-	-	0.0	-	-	7/2	M

**Description:** Permissible deviation between the actual values of the two measuring systems. This difference must not be exceeded during the cyclic comparison of the two measuring systems used, as otherwise error message 25105 (measuring systems deviate) would be generated.

The corresponding monitoring function is not active

- with MD input value=0,
- if less than 2 measuring systems are active/available in the axis
- or if the axis has not been referenced (at least act. closed-loop control meas. system).

With modulo axes, it is always the absolute value of the shortest/direct position difference that is monitored.

36520	DES_VELO_LIMIT	A02, A05		-		
%	Threshold for setpoint velocity monitoring	DOUBLE		NEW CONF		
-						
-	-	125.0	-	-	7/2	M

**Description:** Maximum permissible setpoint velocity as a percentage of the maximum axis velocity/spindle speed.

With MD36520 \$MA\_DES\_VELO\_LIMIT, the position setpoint is monitored for abrupt changes. If the permissible limit value is exceeded, alarm 1016 error code 550010 is output.

With axes, this machine data refers to MD32000 \$MA\_MAX\_AX\_VELO.

With spindles, this MD refers to the lower of the speeds set in MD35130 \$MA\_GEAR\_STEP\_MAX\_VELO\_LIMIT of the current gear stage and MD35100 \$MA\_SPIND\_VELO\_LIMIT.

36600	BRAKE_MODE_CHOICE	EXP, A05		A3,Z1		
-	Deceleration response on hardware limit switch	BYTE		PowerOn		
CTEQ						
-	-	1	0	1	7/2	M

**Description:** If a rising edge of the axis-specific hardware limit switch is detected while the axis is traversing, the axis is braked immediately.

The type of braking is determined by this machine data:

Value = 0:  
Controlled braking along the acceleration ramp defined by MD32300 \$MA\_MAX\_AX\_ACCEL (axis acceleration).

Value = 1:  
Rapid braking (selection of setpoint = 0) with reduction of following error.

Related to:  
NC/PLC interface signal DB31, ... DBX12.1 / 12.0 (Hardware limit switch plus or minus)

36610	AX_EMERGENCY_STOP_TIME	A05, -		TE3,K3,A2,A3,N2,Z1		
s	Maximum time for braking ramp in case of error.	DOUBLE		NEW CONF		
-						
-	-	0.05	0.0	1.0e15	7/2	M

**Description:** This MD defines the braking ramp time that an axis or spindle requires to brake from maximum velocity/speed to a standstill in the event of errors (e.g. emergency stop). At the same lead/brake acceleration, standstill is reached correspondingly earlier from lower velocities/speeds.

Mechanically robust axes are normally stopped abruptly with speed setpoint 0; values in the lower ms range are appropriate in these cases (default setting).

However, high moving masses or limited mechanical conditions (e.g. gear load capacity) often have to be taken into account for spindles. This means that the MD has to be changed to set a longer braking ramp.

Notice:

- With interpolating axes or axis/spindle couplings, it cannot be ensured that the contour or coupling will be maintained during the braking phase.

- If the time set for the braking ramp for error states is too long, the controller enable will be removed although the axis/spindle is still moving. Depending on the drive type used and the activation of the pulse enable, either an immediate stop with speed setpoint 0 will be initiated or the axis/spindle will coast down without power. The time selected in MD36610 \$MA\_AX\_EMERGENCY\_STOP\_TIME should therefore be shorter than the time in MD36620 \$MA\_SERVO\_DISABLE\_DELAY\_TIME (cutout delay, controller enable) so that the configured braking ramp can be fully active throughout the entire braking operation.
- The braking ramp may be ineffective or not maintained if the active drive follows its own braking ramp logic (e.g. SINAMICS).

Related to:

MD36620 \$MA\_SERVO\_DISABLE\_DELAY\_TIME (cutout delay controller enable)

MD36210 \$MA\_CTRLOUT\_LIMIT (maximum speed setpoint)

36620	SERVO_DISABLE_DELAY_TIME	A05, -			TE3,K3,A2,A3,N2,Z1	
s	Cutout delay servo enable	DOUBLE			NEW CONF	
-						
-	-	0.1	0.0	1.0e15	7/2	M

**Description:**

Maximum time delay for removal of "controller enable" after faults. The speed enable (controller enable) of the drive is removed internally within the controller after the set delay time, at the latest.

The delay time entered becomes active as a result of the following events:

- Errors that lead to immediate stopping of the axes
- Removal of the interface signal DB31, ... DBX2.1 (Controller enable) from the PLC

As soon as the actual speed reaches the standstill range (MD36060 \$MA\_STANDSTILL\_VELO\_TOL), the "controller enable" for the drive is removed. The time set should be long enough to enable the axis / spindle to brake down to a standstill from maximum traversing velocity or maximum speed. If the axis / spindle is stationary, the "controller enable" for the drive is removed immediately (i.e. the time defined in MD36620 \$MA\_SERVO\_DISABLE\_DELAY\_TIME is terminated prematurely).

Application example(s):

Speed control of the drive should be retained long enough to enable the axis / spindle to brake down to standstill from maximum traversing velocity or maximum speed.

Notice:

If the cutout delay controller enable is set too short, controller enable will be removed although the axis/spindle is still moving. This axis/spindle then coasts down without power (which may be appropriate for grinding wheels, for example); otherwise the time set in MD36620 \$MA\_SERVO\_DISABLE\_DELAY\_TIME should be longer than the duration of the braking ramp for error states (MD36610 \$MA\_AX\_EMERGENCY\_STOP\_TIME).

Related to:

NC/PLC interface signal DB31, ... DBX2.1 (Controller enable)

MD36610 \$MA\_AX\_EMERGENCY\_STOP\_TIME

For SINAMICS drives: Drive parameter P1082 (maximum speed / velocity)



36690	AXIS_DIAGNOSIS		EXP, A08	-		
-	Internal data for test purposes		DWORD	PowerOn		
NBUP						
-	-	0	-	-	0/0	M

**Description:** Internal data for test purposes

0: :Basic setting

Bit 0 (LSB) = 1 :For test case task.exp (for alarm SCAL\_WARN\_VEL)

Bit 1 = 1 :For test case brake test

- ACT\_POS\_ABS for ENC-SIM on HOST
- Additional error information in \$VA\_FXS\_INFO

Bit 2 = 1 :For travel to fixed stop - preliminary

- Allow rapid braking for linked axes

Bit 3 = 1 :For travel to fixed stop - preliminary

- Consider inversion of direction when switching off rapid braking for linked axes

36700	DRIFT_ENABLE		EXP, A07, A09	G2		
-	Automatic drift compensation		BOOLEAN	NEW CONF		
-						
-	-	FALSE	-	-	1/1	M

**Description:** Only for special analog and hydraulic drives (not active with PROFIdrive drives):

Automatic drift compensation is activated with MD36700 \$MA\_DRIFT\_ENABLE.

1: Automatic drift compensation active (only for position-controlled axes/spindles).

With automatic drift compensation, while the axis is at a standstill, the control continually calculates the additional drift value still required to ensure that the following error reaches the value 0 (compensation criterion). The total drift value is, therefore, formed from the drift basic value (MD36720 \$MA\_DRIFT\_VALUE) and the drift additional value.

0: Automatic drift compensation not active.

The drift value is formed only from the drift basic value (MD36720 \$MA\_DRIFT\_VALUE).

Not relevant for:

Non-position-controlled spindles

Related to:

MD36710 \$MA\_DRIFT\_LIMIT drift limit value for automatic drift compensation

MD36720 \$MA\_DRIFT\_VALUE drift basic value

36710	DRIFT_LIMIT		EXP, A07, A09	-		
%	Drift limit value for automatic drift compensation		DOUBLE	NEW CONF		
-						
-	1	0.0	0	1.e9	1/1	M

**Description:** Only for special analog and hydraulic drives (not active with PROFIdrive drives):

The magnitude of the drift additional value calculated during automatic drift compensation can be limited with MD36710 \$MA\_DRIFT\_LIMIT.

If the drift additional value exceeds the limit value entered in MD36710 \$MA\_DRIFT\_LIMIT, alarm 25070 "Drift value too large" is output and the drift additional value is limited to this value.

1.3 NC machine data

Not relevant for:  
 MD36700 \$MA\_DRIFT\_ENABLE = 0

36720	DRIFT_VALUE	EXP, A07, A09		-		
%	Basic drift value	DOUBLE		NEW CONF		
-						
-	1	0.0	-1e15	1e15	1/1	M

**Description:** Only for special analog and hydraulic drives (not active with PROFIdrive drives):  
 The value entered in MD36720 \$MA\_DRIFT\_VALUE is always added as an offset to the manipulated variable. Whereas automatic drift compensation is active only for position-controlled axes, this machine data is always active.  
 Special case: the following applies to PROFIdrive drives:  
 This MD can also be used for "simple" drives that have drift problems due to drive-internal implementation as analog drives. To avoid erroneous settings, this static drift compensation only becomes active with PROFIdrive if \$MA\_RATED\_OUTVAL != 0 (i.e. the MD has no effect in the case of automatic interface adjustment between the NC and the drive).  
 Note:  
 Drift compensation must not be active if the DSC function (MD32640 \$MA\_STIFFNESS\_CONTROL\_ENABLE=1) is being used, otherwise unexpected speed oscillations will occur when DSC is enabled/disabled.  
 Standardization: The input value is related to the corresponding interface standardization in  
 MD32250 \$MA\_RATED\_OUTVAL,  
 MD32260 \$MA\_RATED\_VELO, and  
 MD36210 \$MA\_CTRLLOUT\_LIMIT.

36730	DRIVE_SIGNAL_TRACKING	A10		B3		
-	Acquisition of additional drive actual values	BYTE		PowerOn		
-						
-	-	0	0	4	7/2	M

**Description:** MD36730 \$MA\_DRIVE\_SIGNAL\_TRACKING = 1 activates the acquisition of the following drive actual values (if they are made available by the drive):

- \$AA\_LOAD Drive load
- \$AA\_POWER Drive active power
- \$AA\_TORQUE Drive torque setpoint
- \$AA\_CURR Smoothed current setpoint (q-axis current) of drive

MD36730 \$MA\_DRIVE\_SIGNAL\_TRACKING = 2 activates the acquisition of the following drive actual values:  
 With PROFIdrive, it must be ensured that the stated values are also transmitted in the drive actual message frame (provide sufficient message frame length on the bus, assign the values to the message frame content in the drive, e.g. use message frame 116).

- \$VA\_DP\_ACT\_TEL shows actual value message frame words

Note: Values 3 and 4 are reserved  
 Note: The value range of MD36730 \$MA\_DRIVE\_SIGNAL\_TRACKING can be restricted because of reduced functions of control systems

36750	AA_OFF_MODE	A10	2,4,5,3,6,2
-	Effect of value assignment for axial override of synchr. action.	BYTE	PowerOn
CTEQ			
-	-	0	0
-	-	7	7/2
-	-		M

**Description:** Mode setting for axial offset \$AA\_OFF

Bit 0: Effect of value assignment within a synchronized action

0: Absolute value

1: Incremental value (integrator)

Bit 1: Response of \$AA\_OFF on RESET

0: \$AA\_OFF is deselected on RESET

1: \$AA\_OFF is retained beyond RESET

Bit 2: \$AA\_OFF in JOG mode

0: No superimposed motion due to \$AA\_OFF

1: A superimposed motion due to \$AA\_OFF is interpolated

36901	SAFE_FUNCTION_ENABLE	A05, -	FBSI
-	Enable safety functions	DWORD	PowerOn
-			
-	-	0	0
-	-	0x1FFFB	7/2
-	-		M

**Description:** The safe operation functions can be enabled for an axis/spindle with this data.

For each axis, only as many axes/spindles can be enabled for safe operation as are enabled by the global option.

The more subfunctions are set, the more CPU time the safety functions need.

Bit 0: Enables safe velocity, safe operational stop

Bit 1: Enables safe limit switches

Bit 2: Reserved for functions with absolute references (such as SE/SN)

Bit 3: Enables actual value synchronization, 2-encoder system

Bit 4: Enables external ESR activation (STOP E)

Bit 5: Enables SG offset

Bit 6: Enables external stop requests

Bit 7: Enables cam synchronization

Bit 8: Enables safe cams, pair 1, cam +

Bit 9: Enables safe cams, pair 1, cam -

Bit 10: Enables safe cams, pair 2, cam +

Bit 11: Enables safe cams, pair 2, cam -

Bit 12: Enables safe cams, pair 3, cam +

Bit 13: Enables safe cams, pair 3, cam -

Bit 14: Enables safe cams, pair 4, cam +

Bit 15: Enables safe cams, pair 4, cam -

Bit 16: Enables synchronization "n < nx", hysteresis and filtering

Special cases:

- When one of the bits from bit 1 is set, then bit 0 also has to be set because the control switches to safe operational stop with STOP C, D, E (parameterization alarm 27033 is displayed if there is an error).
- If the global option does not enable enough axes/spindles for safe operation, then this data can be overwritten with the value 0 during runup.

Related to: Global option

36902	SAFE_IS_ROT_AX	A01, A06, -			FBSI	
-	Rotary axis	BOOLEAN			PowerOn	
-						
-	-	FALSE	-	-	7/2	M

**Description:** States whether the axis for safe operation is a rotary axis/spindle or a linear axis.

- 0: Linear axis
- 1: Rotary axis/spindle

The value in this MD must be equal to that in MD \$MA\_IS\_ROT\_AX. A parameterization error is displayed if there is a difference.

36903	SAFE_CAM_ENABLE	A05, -			-	
-	Function enable safe cam track	DWORD			PowerOn	
-						
-	-	0	0	0x3FFFFFFF	7/2	M

**Description:** Function enables of safe cam track for "Safety Integrated".

- Bit 0: Enables safe cam track, cam 1
- Bit 1: Enables safe cam track, cam 2
- Bit 2: Enables safe cam track, cam 3
- Bit 3: Enables safe cam track, cam 4
- Bit 4: Enables safe cam track, cam 5
- Bit 5: Enables safe cam track, cam 6
- Bit 6: Enables safe cam track, cam 7
- Bit 7: Enables safe cam track, cam 8
- Bit 8: Enables safe cam track, cam 9
- Bit 9: Enables safe cam track, cam 10
- Bit 10: Enables safe cam track, cam 11
- Bit 11: Enables safe cam track, cam 12
- Bit 12: Enables safe cam track, cam 13
- Bit 13: Enables safe cam track, cam 14
- Bit 14: Enables safe cam track, cam 15
- Bit 15: Enables safe cam track, cam 16
- Bit 16: Enables safe cam track, cam 17
- Bit 17: Enables safe cam track, cam 18
- Bit 18: Enables safe cam track, cam 19
- Bit 19: Enables safe cam track, cam 20
- Bit 20: Enables safe cam track, cam 21
- Bit 21: Enables safe cam track, cam 22
- Bit 22: Enables safe cam track, cam 23
- Bit 23: Enables safe cam track, cam 24
- Bit 24: Enables safe cam track, cam 25
- Bit 25: Enables safe cam track, cam 26
- Bit 26: Enables safe cam track, cam 27
- Bit 27: Enables safe cam track, cam 28
- Bit 28: Enables safe cam track, cam 29
- Bit 29: Enables safe cam track, cam 30

36905	SAFE_MODULO_RANGE	A01, A06, -	FBSI
degrees	Modulo value Safe cams	DOUBLE	PowerOn
-			
-	-	0.0	0.0
		737280.0	7/2
			M

**Description:** Actual value range in which the safe cams are calculated for rotary axes. The axis must be a rotary axis (\$MA\_SAFE\_IS\_ROT\_AX = 1).

0: Modulo compensation after +/- 2048 revolutions (that is after 737,280 degrees)

>0: And multiples of 360 degrees: Modulo compensation after this value, for example: value = 360 --> then the actual value range lies between 0 and 359.999 degrees. That is modulo compensation is made after each revolution.

Special cases:

- If the value of this data is not 0 or a multiple of 360 degrees then a corresponding alarm is issued during power on.
- The parameterized actual value ranges of the cam positions are also checked during power on. A corresponding alarm is issued if there is a parameterization error.
- The actual value ranges set by \$MA\_SAFE\_MODULO\_RANGE and \$MA\_MODULO\_RANGE must be integers and divisible without a remainder.

Related to:

MD 30330: \$MA\_MODULO\_RANGE

MD 36935: \$MA\_SAFE\_CAM\_POS\_PLUS[n]

MD 36937: \$MA\_SAFE\_CAM\_POS\_MINUS[n]

36906	SAFE_CTRLOUT_MODULE_NR	A01, -	-
-	SI drive assignment	BYTE	PowerOn
-			
-	-	1, 2, 3, 4, 5, 6, 7, 8...	1
		31	7/2
			M

**Description:** Assignment of the drive for SI motion monitoring.

The entry refers to data field MD10393 \$MN\_SAFE\_DRIVE\_LOGIC\_ADDRESS.

The drive assigned must be the same as the one selected using MD30110 \$MA\_CTRLOUT\_MODULE\_NR and MD13050 \$MN\_DRIVE\_LOGIC\_ADDRESS.

36907	SAFE_DRIVE_PS_ADDRESS	A01, -	-
-	PROFIsafe address of the drive	DWORD	PowerOn
-			
-	-	0	-
			ReadOnly
			M

**Description:** This NCK MD contains the PROFIsafe address of the drive assigned to this axis. This MD is read out during the power on of the drive. This address must be unique across all axes.

This MD cannot be written, the PROFIsafe address must be parameterized in the drive.

The value of this MD is included in the calculation of MD \$MA\_SAFE\_ACT\_CHECKSUM[2].

36909	SAFE_ENC_MEAS_STEPS_RESOL	A02, -	FBSI
mm	Resolving measurement steps for linear absolute encoders	DOUBLE	PowerOn
-			
-	-	0.0001	0.0
		4295	ReadOnly
			M

**Description:** Sets the resolution of the absolute position for a linear absolute encoder.

When powering up, this information for linear DRIVE-CLiQ encoders is read from drive parameter r0469 and is compared with the value last saved. This MD is then overwritten. If not equal, then alarm 27036 is output.

The value of this MD is incorporated in the checksum calculation of MD \$MA\_SAFE\_ACT\_CHECKSUM[0].

Corresponds with:

MD 36913: \$MA\_SAFE\_ENC\_MEAS\_STEPS\_POS1

MD 36917: \$MA\_SAFE\_ENC\_GRID\_POINT\_DIST

36912	SAFE_ENC_INPUT_NR	A01, A02, -		FBSI		
-	Actual value assignm.: Input on drive module/meas. circuit board	BYTE		PowerOn		
-						
-	-	1	1	3	7/2	M

**Description:** Number of the actual value input through which the safe actual values are recorded.

Special cases:

Related to:

p9526, p0189

36913	SAFE_ENC_MEAS_STEPS_POS1	A02, -		FBSI		
-	Non-safety-relevant measurement steps POS1	DWORD		PowerOn		
-						
-	-	22000	0	4294967295	ReadOnly	M

**Description:** Sets the non safety-relevant measurement steps of the position value POS1. When powering up, this information for linear DRIVE-CLiQ encoders is read out of drive parameter r0473 and compared with the value last saved here. This MD is then overwritten. If not equal, then alarm 27036 is output.

The value of this MD is incorporated in the checksum calculation of MD \$MA\_SAFE\_ACT\_CHECKSUM[0].

Corresponds with:

MD 36909: \$MA\_SAFE\_ENC\_MEAS\_STEPS\_RESOL

MD 36917: \$MA\_SAFE\_ENC\_GRID\_POINT\_DIST

36914	SAFE_SINGLE_ENC	A01, A02, -		-		
-	SI single-encoder system	BOOLEAN		PowerOn		
-						
-	-	TRUE	-	-	7/2	M

**Description:** Identifier that SI is carried out with an encoder. This MD must be parameterized to 0 if different encoders are used for the Safety Integrated monitoring functions in the NCK and in the drive.

36916	SAFE_ENC_IS_LINEAR	A02, -		FBSI		
-	Linear scale	BOOLEAN		PowerOn		
-						
-	-	FALSE	-	-	7/2	M

**Description:** Definition of whether a linear or a rotary encoder is connected.

0: Rotary encoder is connected, its resolution is defined by \$MA\_SAFE\_ENC\_RESOL, and converted by \$MA\_SAFE\_ENC\_GEAR\_PITCH, \$MA\_SAFE\_ENC\_GEAR\_DENOM[n] and \$MA\_SAFE\_ENC\_GEAR\_NUMERA[n] on the load side. MD \$MA\_SAFE\_ENC\_GRID\_POINT\_DIST has no significance.

1: Linear encoder is connected, its resolution is defined by \$MA\_SAFE\_ENC\_GRID\_POINT\_DIST. MD \$MA\_SAFE\_ENC\_RESOL, \$MA\_SAFE\_ENC\_GEAR\_PITCH, \$MA\_SAFE\_ENC\_GEAR\_DENOM[n] and \$MA\_SAFE\_ENC\_GEAR\_NUMERA[n] have no meaning. If the value changes, alarm 27036 is triggered.

Related to:

With 0:

\$MA\_SAFE\_ENC\_RESOL

\$MA\_SAFE\_ENC\_GEAR\_PITCH

\$MA\_SAFE\_ENC\_GEAR\_DENOM[n]

\$MA\_SAFE\_ENC\_GEAR\_NUMERA[n]

With 1:

\$MA\_SAFE\_ENC\_GRID\_POINT\_DIST

36917	SAFE_ENC_GRID_POINT_DIST	A02, -	FBSI
mm	Scale division for linear scale	DOUBLE	PowerOn
-			
-	-	0.01	0.00001
		250	7/2
			M

**Description:** Definition of the grid spacing of the linear scale used.  
Not relevant for a rotary encoder.

36918	SAFE_ENC_RESOL	A02, -	FBSI
-	Encoder lines per revolution	DWORD	PowerOn
-			
-	-	2048	1
		100000000	7/2
			M

**Description:** Definition of the lines per revolution for a rotary encoder.  
Not relevant for a linear encoder.

36919	SAFE_ENC_PULSE_SHIFT	A02, -	-
-	Shift factor of encoder multiplication	BYTE	PowerOn
-			
-	-	11	2
		18	ReadOnly
			M

**Description:** Slide factor of the multiplication factor (high-resolution) of the encoder used for the Safety Integrated monitoring functions in the NCK. The encoder value must be divided by 2, the number of times needed to get the number of encoder lines. A slide factor of 11 corresponds to an encoder multiplication factor of 2048. If the drive provides this information (r0979[3,13,23]), this MD is automatically assigned internally after power ON of the drive. If the value changes during this process, alarm 27036 is triggered.

36920	SAFE_ENC_GEAR_PITCH	A02, -	FBSI
mm	Lead screw pitch	DOUBLE	PowerOn
-			
-	-	10.0	0.1
		10000.	7/2
			M

**Description:** Gear ratio between encoder and load for a linear axis with a rotary encoder.

36921	SAFE_ENC_GEAR_DENOM	A02, -	FBSI
-	Denominator of gearbox encoder/load	DWORD	PowerOn
-			
-	8	1, 1, 1, 1, 1, 1, 1, 1   1	2147000000 7/2 M

**Description:** Numerator of the gearbox between encoder and load, that is the numerator of the fraction: number of encoder revolutions / number of load revolutions  
 $n = 0, 1, \dots, 7$  stand for gear stages 1, 2, ... 8  
The current value is selected via safety-relevant input signals (SGE).  
Related to:  
MD 36922: \$MA\_SAFE\_ENC\_GEAR\_NUMERA[n]

36922	SAFE_ENC_GEAR_NUMERA	A02, -	FBSI
-	Numerator of gearbox encoder/load	DWORD	PowerOn
-			
-	8	1, 1, 1, 1, 1, 1, 1, 1   1	2147000000 7/2 M

**Description:** Numerator of the gearbox between encoder and load, that is the numerator of the fraction:  
number of encoder revolutions / number of load revolutions  
 $n = 0, 1, \dots, 7$  stand for gear stages 1, 2, ... 8  
The current value is selected via safety-relevant input signals (SGE).  
Related to:  
MD 36921: \$MA\_SAFE\_ENC\_GEAR\_DENOM[n]

36923	SAFE_INFO_ENC_RESOL	A02, A08, -	-
mm, degrees	Safe encoder resolution	DOUBLE	PowerOn
-			
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	- - ReadOnly M

**Description:** Display data: Resolution of the encoder used in the relevant gear stage for the Safety Integrated monitoring functions. A single encoder system can monitor safe positions with this accuracy. This MD is 0 if different encoders are used in the drive and in the NCK for the Safety Integrated monitoring functions.

36924	SAFE_ENC_NUM_BITS	A02, -	-
-	Bit information of the redundant actual value	DWORD	PowerOn
-			
-	4	16, 2, 16, 16	-16 32 ReadOnly M

**Description:** Information about the redundant actual value:

- Array index 0: Number of valid bits of the redundant actual value
- Array index 1: Number of fine resolution bits of the redundant actual value
- Array index 2: Number of relevant bits of the redundant actual value
- Array index 3: Most significant bit of the redundant coarse position



This information is read out during ramp-up (for DRIVE-CLiQ encoders from drive parameters r0470, r0471, r0472, and r0475; the default values apply for SMI/SMC/SME encoders) and compared with the most recent values saved here. This MD is then overwritten. In the case of inequality, alarm 27035 or 27036 is output. The values from \$MA\_SAFE\_ENC\_NUM\_BITS[0,1] are included in the calculation of MD \$MA\_SAFE\_ACT\_CHECKSUM[1]. The values from \$MA\_SAFE\_ENC\_NUM\_BITS[2,3] are included in the calculation of MD \$MA\_SAFE\_ACT\_CHECKSUM[0].

If the combination of several values is incorrect or the number of the relevant bits (index 2) equal to 0, then alarm 27038 is output.

36925	SAFE_ENC_POLARITY	A02, -		FBSI	
-	Direction reversal of actual value	DWORD		PowerOn	
-					
-	-	1	-1	1	7/2 M

**Description:** A direction reversal of the actual value can be set with this data.  
-1: Direction reversal  
0: No direction reversal or  
1: No direction reversal

36927	SAFE_ENC_MOD_TYPE	A02, -		-	
-	Encoder evaluation type	BYTE		PowerOn	
-					
-	-	1	-	-	ReadOnly M

**Description:** Type of encoder evaluation used for Safety Integrated on this axis.  
1 = Sensor Module (SMI, SMC, SME)  
2 = DRIVE-CLiQ encoder  
This type is read out from drive parameter r9527 during ramp-up. If a valid value has not been entered (permissible values are 1 and 2), alarm 27038 is output. If the drive parameter contains a valid value, this is compared with the last value stored in this MD. This MD is then overwritten. In the event of inequality, alarm 27035 is output. The value of this MD is included in the calculation of MD36998 \$MA\_SAFE\_ACT\_CHECKSUM[1].

36928	SAFE_ENC_IDENT	A02, -		-	
-	Encoder identification	DWORD		PowerOn	
-					
-	3	0, 0, 0	-	-	ReadOnly M

**Description:** Identification of the encoder evaluation used for Safety Integrated on this axis. This identification is read out during power on by the encoder evaluation, and compared with the last value stored here. This MD is then overwritten. The value of this MD is included in the calculation of MD36998 \$MA\_SAFE\_ACT\_CHECKSUM[1].  
Related to:  
r9881: SI Motion Sensor Module Node Identifier control

36929	SAFE_ENC_CONF	A02, -		-	
-	Configuration of the redundant actual value	DWORD		PowerOn	
-					
-	-	0	-	-	ReadOnly M

**Description:** Configuration of the redundant actual value on DRIVE-CLiQ encoder:  
Bit 0: Up-down counter

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- = 0: Up counter
- = 1: Down counter
- Bit 1: Encoder CRC: Processing of redundant coarse position
  - = 0: Most significant byte first
  - = 1: Least significant byte first
- Bit 2: Redundant coarse position MSB-/LSB-justified
  - = 0: Redundant coarse position LSB-justified
  - = 1: Redundant coarse position MSB-justified
- Bit 4: binary comparison not possible
  - = 0: binary comparison possible
  - = 1: binary comparison not possible

This information is read out from drive parameter r0474 during ramp-up and compared with the last value stored here. This MD is then overwritten. In the event of inequality, alarm 27035 is output. The value of this MD is included in the calculation of MD36998 \$MA\_SAFE\_ACT\_CHECKSUM[1].

If an unknown bit is set in drive parameter r0474, then alarm 27038 is output. The alarm output can be suppressed at this position using MD \$MN\_SAFE\_DIAGNOSIS\_MASK, bit 3 = 1

36930	SAFE_STANDSTILL_TOL	A05, -			FBSI	
mm, degrees	Standstill tolerance	DOUBLE			PowerOn	
-						
-	-	1.	0.	100.	7/2	M

**Description:** Definition of the tolerance for safe operational stop.  
 The control triggers alarm 27010 with STOP B if the difference between position limit value and position actual value is greater than this tolerance when safe operational stop is selected. The position limit value is the position actual value at the time safe operational stop was selected.  
 Related to:  
 MD 36956: \$MA\_SAFE\_PULSE\_DISABLE\_DELAY

36931	SAFE_VELO_LIMIT	A05, A04, -			FBSI	
mm/min, rev/min	Limit value for safe velocity	DOUBLE			PowerOn	
-						
-	4	2000., 2000., 2000., 2000.	-	-	7/2	M

**Description:** Definition of the limit values for the safe velocities 1, 2, 3 and 4.  
 If SG1, SG2, SG3 or SG4 is selected and the current velocity exceeds this limit value, the control triggers alarm 27011 with the stop response configured in \$MA\_SAFE\_VELO\_STOP\_MODE or \$MA\_SAFE\_VELO\_STOP\_REACTION.  
 n = 0, 1, 2, 3 stand for the limit values of SG1, SG2, SG3, SG4  
 Special cases:  
 In a 1-encoder system with SBH/SG active, the velocity is monitored according to the encoder frequency set in MD \$MA\_SAFE\_ENC\_FREQ\_LIMIT. A corresponding alarm is output if this is exceeded.  
 Related to:  
 MD 36961: \$MA\_SAFE\_VELO\_STOP\_MODE  
 MD 36963: \$MA\_SAFE\_VELO\_STOP\_REACTION

36932	SAFE_VELO_OVR_FACTOR			A05, A04, -	FBSI	
%	SG offset values			DOUBLE	PowerOn	
-						
-	16	100.0, 100.0, 100.0, 100.0, 100.0, 100.0, 100.0, 100.0, 100.0...	1.0	100.0	7/2	M

**Description:** Overrides for the limit values of safe velocities 2 and 4 can be selected via the SGEs, and the associated override value (percentage values) can be set with this MD.

n = 0, 1, ... , 15 stand for overrides 0, 1, ... 15

Special cases:

- The function "Override safe speed" is enabled by MD 36901 \$MA\_SAFE\_FUNCTION\_ENABLE.
- This override is inactive for the limit values of velocities 1 and 3.

Related to:

MD 36978: \$MA\_SAFE\_OVR\_INPUT[n]

MD 36931: \$MA\_SAFE\_VELO\_LIMIT[n]

36933	SAFE_DES_VELO_LIMIT			A05, A04, -	FBSI	
%	NCK setpoint speed limit			DOUBLE	Reset	
-						
-	MD_MAXNUM_SF_ DESVEL_LIMIT	0.0, 0.0, 0.0, 0.0	0	100	7/2	M

**Description:** Weighting factors for determining the setpoint limit from the current actual speed limit.

The active weighting factor is selected by the axial NC/PLC interface DB31, ... DBX34.0 - .1 .

The active actual speed limit value is weighted with the selected factor and transferred to the interpolator as setpoint limit.

Parameterization:

To optimally set this MD, it may be necessary to make several changes in order to take into account the dynamic performance of the drives.

Special cases:

- When selecting SBH, setpoint 0 is entered.
- When entering 100%, the setpoint is limited to the active SG level.
- When entering 0%, the setpoint velocity limiting is inactive.
- This data is not included in the cross-check with the drive.
- This data is not included in the axial checksum MD36998 \$MA\_SAFE\_ACT\_CHECKSUM, as it involves a 1-channel function.

36934	SAFE_POS_LIMIT_PLUS			A03, A05, -	FBSI	
mm, degrees	Upper limit of safe end position			DOUBLE	PowerOn	
-						
-	2	100000., 100000.	-2147000	2147000	7/2	M

**Description:** Definition of the upper limit value for safe end positions 1 and 2.

If SE1 or SE2 is selected and the current actual position is greater than this limit value, the control triggers alarm 27012 with the stop response configured in \$MA\_SAFE\_POS\_STOP\_MODE and switches to SBH. Stop responses STOP B and A follow if SBH is violated.

n = 0, 1 stand for the upper limit values of SE1, SE2

Related to:

- MD 36962: \$MA\_SAFE\_POS\_STOP\_MODE
- MD 36935: \$MA\_SAFE\_POS\_LIMIT\_MINUS [n]
- MD 36901: \$MA\_SAFE\_FUNCTION\_ENABLE

Special cases:

A parameterization error is displayed if a value is entered in MD: \$MA\_SAFE\_POS\_LIMIT\_PLUS[n] which is less than or equal to that in MD: \$MA\_SAFE\_POS\_LIMIT\_MINUS [n] .

36935	SAFE_POS_LIMIT_MINUS	A03, A05, -	FBSI			
mm, degrees	Lower limit of safe end position	DOUBLE	PowerOn			
-						
-	2	-100000., -100000.	-2147000	2147000	7/2	M

**Description:**

Definition of the lower limit value for safe end positions 1 and 2. If SE1 or SE2 is selected and the current actual position is less than this limit value, the control triggers alarm 27012 with the stop response configured in \$MA\_SAFE\_POS\_STOP\_MODE and switches to SBH. Stop responses STOP B and A follow if SBH is violated.

n = 0, 1 stand for the lower limit values of SE1, SE2

Related to:

- MD 36962: \$MA\_SAFE\_POS\_STOP\_MODE
- MD 36934: \$MA\_SAFE\_POS\_LIMIT\_PLUS [n]

Special cases:

A parameterization error is displayed if a value is entered in MD: \$MA\_SAFE\_POS\_LIMIT\_PLUS[n] which is less than or equal to that in MD: \$MA\_SAFE\_POS\_LIMIT\_MINUS [n] .

36936	SAFE_CAM_POS_PLUS	A03, A05, -	FBSI			
mm, degrees	Plus cam position for safe cams	DOUBLE	PowerOn			
-						
-	30	10., 10., 10., 10., 10., 10., 10., 10., 10., 10., 10., 10., 10....	-2147000	2147000	7/2	M

**Description:**

Definition of the plus cam positions for the safe cams SN1 +, SN2 +, SN3 + and SN4 +, ...

The following applies to the function "Safe cams":

If, with activated safe cams, the actual position is greater than this value, the corresponding safety-relevant output signal (SGA) is set to 1. If the actual position falls below this value, the SGA is set to 0.

n = 0, 1, 2, 3 stand for plus cam positions of SN1 +, SN2 +, SN3 +, SN4 +

The following applies to the function "Safe cam track":

If the function "Safe cam track" has been enabled, the safety-related output signals "Cam track" and "Cam range" are set in accordance with the cam parameterization. For this purpose, the parameterization of the cam range in MD \$MA\_SAFE\_CAM\_TRACK\_ASSIGN[n] must be viewed.

n = 0 ... 29 stand for plus cam positions of SN1+, SN2+, ..., SN30+.

Related to:

- MD 36988: \$MA\_SAFE\_CAM\_PLUS\_OUTPUT [n]
- MD 36937: \$MA\_SAFE\_CAM\_POS\_MINUS [n]
- MD 36938: \$MA\_SAFE\_CAM\_TRACK\_ASSIGN [n]

MD 37900: \$MA\_SAFE\_CAM\_TRACK\_OUTPUT[n]  
 MD 37901: \$MA\_SAFE\_CAM\_RANGE\_OUTPUT\_1[n]  
 MD 37902: \$MA\_SAFE\_CAM\_RANGE\_OUTPUT\_2[n]  
 MD 37903: \$MA\_SAFE\_CAM\_RANGE\_OUTPUT\_3[n]  
 MD 37904: \$MA\_SAFE\_CAM\_RANGE\_OUTPUT\_4[n]

36937	SAFE_CAM_POS_MINUS			A03, A05, -	FBSI	
mm, degrees	Minus cam position for safe cams			DOUBLE	PowerOn	
-						
-	30	-10., -10., -10., -10., -10., -10., -10., -10., -10., -10...	-2147000	2147000	7/2	M

**Description:** Definition of the minus cam positions for the safe cams SN1 -, SN2 -, SN3 -, ...  
 The following applies to the function "Safe cams":  
 If, with activated safe cams, the actual position is greater than this value, the corresponding, safety-relevant output signal (SGA) is set to 1. If the actual position falls below this value, the SGA is set to 0.  
 n = 0, 1, 2, 3 stand for minus cam positions of SN1 -, SN2 -, SN3 -, SN4 -  
 The following applies to the function "Safe cam track":  
 If the function "Safe cam track" has been enabled, the safety-related output signals "Cam track" and "Cam range" are set in accordance with the cam parameterization. For this purpose, the parameterization of the cam range in MD \$MA\_SAFE\_CAM\_TRACK\_ASSIGN[n] must be viewed.  
 n = 0 ... 29 stand for minus cam positions of SN1-, SN2-, ..., SN30-.  
 Related to:  
 MD 36989: \$MA\_SAFE\_CAM\_MINUS\_OUTPUT[n]  
 MD 36936: \$MA\_SAFE\_CAM\_POS\_PLUS[n]  
 MD 36938: \$MA\_SAFE\_CAM\_TRACK\_ASSIGN[n]  
 MD 37900: \$MA\_SAFE\_CAM\_TRACK\_OUTPUT[n]  
 MD 37901: \$MA\_SAFE\_CAM\_RANGE\_OUTPUT\_1[n]  
 MD 37902: \$MA\_SAFE\_CAM\_RANGE\_OUTPUT\_2[n]  
 MD 37903: \$MA\_SAFE\_CAM\_RANGE\_OUTPUT\_3[n]  
 MD 37904: \$MA\_SAFE\_CAM\_RANGE\_OUTPUT\_4[n]

36938	SAFE_CAM_TRACK_ASSIGN			A01, A05, -	FBSI	
-	Cam track assignment			DWORD	PowerOn	
-						
-	30	100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112...	100	414	7/2	M

**Description:** Assignment of the individual cams to the max. 4 cam tracks including definition of the numerical value for SGA "Cam range".  
 >The hundreds digit defines to which cam track the cam is assigned. Valid values are 1, 2, 3 or 4.  
 The tens and ones digits include the numerical value that is to be reported to the safe logics as SGA "Cam range" and processed there. Valid values are 0 to 14, while each numerical value per cam track may be used only once.  
 Therefore the valid value range of this machine data is:  
 100...114, 200...214, 300...314, 400...414

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Examples:

MD36938[0] = 207: cam 1 (index 0) is assigned to cam track 2.

If the position is within the range of this cam, a 7 is entered in SGA "Cam range" of the 2nd cam track.

MD36938[5] = 100: cam 6 (index 5) is assigned to cam track 1.

If the position is within the range of this cam, a 0 is entered in SGA "Cam range" of the 1st cam track.

Related to:

MD 36936: \$MA\_SAFE\_CAM\_POS\_PLUS[n]

MD 36937: \$MA\_SAFE\_CAM\_POS\_MINUS[n]

MD 37900: \$MA\_SAFE\_CAM\_TRACK\_OUTPUT[n]

MD 37901: \$MA\_SAFE\_CAM\_RANGE\_OUTPUT\_1[n]

MD 37902: \$MA\_SAFE\_CAM\_RANGE\_OUTPUT\_2[n]

MD 37903: \$MA\_SAFE\_CAM\_RANGE\_OUTPUT\_3[n]

MD 37904: \$MA\_SAFE\_CAM\_RANGE\_OUTPUT\_4[n]

36940	SAFE_CAM_TOL	A05, -	FBSI
mm, degrees	Tolerance for safe cams	DOUBLE	PowerOn
-			
-	-	0.1	0.001
		10	7/2
			M

**Description:** As a result of differing encoder mounting positions and differing cycle and run times, the cam signals of the two monitoring channels never switch at exactly the same position or at exactly the same time.

This data defines the tolerance as a load-side path for all cams, within which the monitoring channels can have different signal states for the same cam without triggering alarm 27001.

Recommendation:

Enter a value equal to or slightly larger than that in MD 36942.

36942	SAFE_POS_TOL	A05, -	FBSI
mm, degrees	Tolerance actual value cross-check	DOUBLE	PowerOn
-			
-	-	0.1	0.001
		360	7/2
			M

**Description:** Because of varying installation locations for the encoder, backlash, torsion, lead screw error etc, the two actual positions acquired by NCK and drive at the same time can differ from one another.

The tolerance for the cross-check of the actual positions in the two monitoring channels is entered in this data.

Special cases:

- The prime consideration for defining this tolerance is the "finger protection" (ca. 10 mm).
- If this tolerance is exceeded, stop reaction STOP F ensues.

36944	SAFE_REFP_POS_TOL	A05, -	FBSI
mm, degrees	Tolerance actual value check (referencing)	DOUBLE	PowerOn
-			
-	-	0.01	0
		36	7/2
			M

**Description:** This data defines the tolerance for checking the actual values after referencing (for an incremental encoder) or during power on (for an absolute encoder).

Referencing determines an absolute actual position of the axis. A second absolute actual position is derived from the last stored standstill position before the control was switched off and the path traversed since power on. The control checks the actual values after referencing with these two absolute positions, the path traversed and this data.

The following influences must be taken into account when determining the tolerance values:

backlash, leadscrew error, compensations (max. compensation values with LEC, sag and temperature compensations), temperature errors, torsion (2-encoder system), gear tolerance in variable gears, coarser resolution (2-encoder system), oscillation distance with variable gears.

Special cases:

Given user agreement, if the two absolute actual positions differ by more than the value in this data, alarm 27001 is displayed with error code 1003, and renewed user agreement is required for referencing.

36945	SAFE_VELO_X_FILTER_TIME	A04, A05, -			FBSI	
s	Filter n < nx	DOUBLE			PowerOn	
-						
-	-	0	0	0.1	7/2	M

**Description:** Setting the filter time to form the SGA "n < nx"  
The filtering must be activated by setting bit 16 in \$MA\_SAFE\_FUNCTION\_ENABLE.  
Filtering is not active with default value 0.  
Parameterizing a filter time not equal to 0 increases the reaction time of SGA "n < nx".  
Related to:  
MD 36946: \$MA\_SAFE\_VELO\_X  
MD 36947: \$MA\_SAFE\_VELO\_X\_HYSTERESIS

36946	SAFE_VELO_X	A04, A05, -			FBSI	
mm/min, rev/min	Velocity limit n < nx	DOUBLE			PowerOn	
-						
-	-	(20./20)	(0./0.)	(1000./1000.)	7/2	M

**Description:** This data defines the limit speed n\_x for the SGA "n < nx".  
The SGA "n < nx" is set if this speed limit is undershot.

36947	SAFE_VELO_X_HYSTERESIS	A04, A05, -			FBSI	
mm/min, rev/min	Velocity hysteresis n < nx	DOUBLE			PowerOn	
-						
-	-	(10./10)	(0./0.)	(500./500.)	7/2	M

**Description:** Setting of the hysteresis threshold to form the SGA "n < nx".  
This MD is used in addition to the hysteresis to check the velocity in both monitoring channels at the threshold nx. The velocity must not differ more than the value of this MD, otherwise a Stop F will be output with error code 2.  
\$MA\_SAFE\_VELO\_X\_HYSTERESIS must be less than or equal to 1/2 \$MA\_SAFE\_VELO\_X.  
The function "Synchronization "n < nx", hysteresis and filtering" must be active (\$MA\_SAFE\_FUNCTION\_ENABLE, bit 16 = 1).

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Related to:  
 MD 36945: \$MA\_SAFE\_VELO\_X\_FILTER\_TIME  
 MD 36946: \$MA\_SAFE\_VELO\_X

36948	SAFE_STOP_VELO_TOL	A04, A05, -			FBSI	
mm/min, rev/min	Velocity tolerance for Safe monitoring of acceleration	DOUBLE			PowerOn	
-	-	(300./ 50.)	(0./ 0.)	(120000./ 20000.)	7/2	M

**Description:** Tolerance of the actual velocity for safe monitoring of the acceleration (SBR).  
 This tolerance is added to the actual velocity after safe monitoring of the acceleration has been activated (by triggering a Stop B or C).  
 The actual velocity must not be greater than the limit thus defined.  
 Otherwise a Stop A is triggered. This reveals an acceleration of the drive as quickly as possible.

36949	SAFE_SLIP_VELO_TOL	A04, A05, -			FBSI	
mm/min, rev/min	Slip velocity tolerance	DOUBLE			PowerOn	
-	-	(6./ 1.)	(0./ 0.)	(1000./ 1000.)	7/2	M

**Description:** Difference in velocity between the motor and load sides tolerated by a 2-encoder system, without the data cross-check between SIMODRIVE611D and NCK signaling an error.  
 MD36949 \$MA\_SAFE\_SLIP\_VELO\_TOL is only evaluated if MD36901 \$MA\_SAFE\_FUNCTION\_ENABLE, bit3 is set.  
 Related to:  
 MD1349 \$MD\_SAFE\_SLIP\_VELO\_TOL

36950	SAFE_MODE_SWITCH_TIME	A05, -			FBSI	
s	Tolerance time for SGE switchover	DOUBLE			PowerOn	
-	-	0.5	0	10.	7/2	M

**Description:** SGE switchovers are not active simultaneously because the data transfer run-times of the SGEs differ in the two monitoring channels. The data cross-check would report an error in this case.  
 This data defines the length of time after SGE switchovers during which the actual values and the monitoring results are not cross-checked (the machine data continue to be compared!). The selected monitoring continues to run uninterrupted in both monitoring channels.  
 A safe function becomes active in a monitoring channel as soon as the selection or switchover is detected in this channel.  
 The differing runtime is mainly determined by the PLC cycle time.  
 System-related minimum tolerance time: 2 x PLC cycle time (maximum cycle) + 1 x IPO cycle time.  
 The runtime differences must also be taken into account in the external circuit (e.g. relay switching times).



36951	SAFE_VELO_SWITCH_DELAY	A05, -	FBSI
s	Delay time for velocity changeover	DOUBLE	PowerOn
-			
-	-	0.1	0
-	-	600.	7/2
-	-		M

**Description:** A timer is started with this value when transferring from a higher to a lower safe speed or when selecting safe operational stop with safe speed active. The parameterized value selected must be as low as possible.

The last selected speed limit value continues to be monitored while the timer is running. During this time, the axle/spindle can be decelerated, for example via the PLC user program, without the monitoring reporting an error and triggering a stop reaction.

Special cases:

1. The timer is canceled immediately on switching to a limit greater than or equal to the previously active SG limit.
2. The timer is canceled immediately on switching to "Non-safe operation" (SGE "Deselect SBH/SG=1").
3. The timer is retrIGGERED (restarted) on switching to a limit less than the previously active SG limit or to SBH while the timer is running.

36952	SAFE_STOP_SWITCH_TIME_C	A05, -	FBSI
s	Transition time STOP C to safe standstill	DOUBLE	PowerOn
-			
-	-	0.1	0
-	-	600.	7/2
-	-		M

**Description:** This data defines the time after which a switch is made to safe operational stop when a STOP C has been triggered.

The parameterized value selected must be as low as possible.

Safe operational stop is monitored after this time has expired. STOP A or B is triggered if the axis/spindle could not be stopped.

36953	SAFE_STOP_SWITCH_TIME_D	A05, -	FBSI
s	Transition time STOP D to safe standstill	DOUBLE	PowerOn
-			
-	-	0.1	0
-	-	600.	7/2
-	-		M

**Description:** This data defines the time after which a switch is made to safe operational stop when a STOP D has been triggered.

The parameterized value selected must be as low as possible.

Safe operational stop is monitored after this time has expired. STOP B is triggered if the axis/spindle could not be stopped.

36954	SAFE_STOP_SWITCH_TIME_E	A05, -	FBSI
s	Transitional period STOP E to safe standstill	DOUBLE	PowerOn
-			
-	-	0.1	0
-	-	600.	7/2
-	-		M

**Description:** Time period after which a switch over takes place from STOP E to safe operational stop.

The parameterized value selected must be as small as possible.

36955	SAFE_STOP_SWITCH_TIME_F	A05, -	FBSI			
s	Transition time STOP F to STOP B	DOUBLE	PowerOn			
-						
-	-	0.0	0	600.	7/2	M

**Description:** Time period after which a switch over takes place from stop F to stop B with active monitoring functions.

The parameterized value selected must be as low as possible.

During this time, another deceleration reaction can be activated, e.g. by means of synchronized actions.

The switch over also takes place if a C/D/E stop occurs during this time.

36956	SAFE_PULSE_DISABLE_DELAY	A05, -	FBSI			
s	Delay time for pulse suppression	DOUBLE	PowerOn			
-						
-	-	0.1	0	600.	7/2	M

**Description:** On STOP B, deceleration is made with speed setpoint 0 at the current limit and changed to STOP A for pulse suppression after the delay time defined with this data.

The parameterized value selected must be as low as possible.

Special cases:

The pulse suppression is performed earlier than defined in this data if the condition for pulse suppression is present via MD 36960:

\$MA\_SAFE\_STANDSTILL\_VELO\_TOL or via MD 36620: \$MA\_SERVO\_DISABLE\_DELAY\_TIME.

If the time is set in this data to ZERO, then on STOP B an immediate change is made to STOP A (immediate pulse suppression).

Relating to:

MD 36960: \$MA\_SAFE\_STANDSTILL\_VELO\_TOL

MD 36620: \$MA\_SERVO\_DISABLE\_DELAY\_TIME

MD 36060: \$MA\_STANDSTILL\_VELO\_TOL

36957	SAFE_PULSE_DIS_CHECK_TIME	A05, -	FBSI			
s	Time for checking pulse suppression	DOUBLE	PowerOn			
-						
-	-	0.1	0	10	7/2	M

**Description:** Definition of the time after which pulses have to be disabled after a request to disable pulses.

The time between deleting the SGA "Enable pulse" and detecting the disabling of pulses via the SGE "Status pulses disabled" must not exceed the value of this data.

Special cases:

STOP A is triggered if this time is exceeded.

36958	SAFE_ACCEPTANCE_TST_TIMEOUT	A05, -	FBSI			
s	Time limit for acceptance test duration	DOUBLE	PowerOn			
-						
-	-	40.0	5	100	7/2	M

**Description:** On the NCK side, a time limit can be specified for the duration of an acceptance test.

The NCK terminates the test if an acceptance test lasts longer than the time defined in MD 36958.

The acceptance test status is set to zero on the NCK side. When the acceptance test status is reset, SI-power-ON-alarms are reset again from reset-acknowledgeable to power-ON-acknowledgeable on the NCK and drive sides.

The NCK clears alarm 27007 and the drive clears alarm 300952.

This MD is also used to limit the duration of an SE (safe limit position) acceptance test. After the programmed time has elapsed, the SE acceptance test is canceled and alarm 27008 deleted. The software limit positions then once again act as defined in the machine data.

36960	SAFE_STANDSTILL_VELO_TOL	A05, A04, -	FBSI
mm/min, rev/min	Creep speed for pulse suppression	DOUBLE	PowerOn
-			
-	-	(0./0.)	(0./0.)
		(1000./1000.)	7/2
			M

**Description:** Speed below which the axle/spindle is regarded as being at a standstill and the pulses are disabled with STOP B (through transition to STOP A).

Related to:

MD 36956: \$MA\_SAFE\_PULSE\_DISABLE\_DELAY

36961	SAFE_VELO_STOP_MODE	A05, -	FBSI
-	Stop reaction for safe velocity	BYTE	PowerOn
-			
-	-	5	0
		14	7/2
			M

**Description:** The stop reaction defined in this data is triggered if the limit value for the safe velocity 1, 2, 3 or 4

is exceeded.

= 0, 1, 2, 3 correspond to STOP A, B, C, D, common to each safe velocity stage

= 5 means that the stop reaction can be configured specifically for each safe velocity in MD 36963.

The units digit defines the selection of the stop reaction when the safe velocity is exceeded.

The tens digit defines the behavior in the case of failure of communication to the drive if a time greater than 0 is parameterized in \$MN\_SAFE\_PULSE\_DIS\_TIME\_BUSFAIL.

0: Stop A

1: Stop B

2: Stop C

3: Stop D

4: Stop E

5: SAFE\_VELO\_STOP\_MODE invalid, stop reaction is parameterized via MD SAFE\_VELO\_STOP\_REACTION

10: Stop A, additionally, in the event of failure of communication to the drive, pulses are not disabled immediately if safe velocity is active

11: Stop B, additionally, in the event of failure of communication to the drive, pulses are not disabled immediately if safe velocity is active

12: Stop C, additionally, in the event of failure of communication to the drive, pulses are not disabled immediately if safe velocity is active

13: Stop D, additionally, in the event of failure of communication to the drive, pulses are not disabled immediately if safe velocity is active

14: Stop E, additionally, in the event of failure of communication to the drive, pulses are not disabled immediately if safe velocity is active

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Special cases:

- If the value in this MD is 5, the stop reaction for each safe velocity stage is defined selectively in \$MA\_SAFE\_VELO\_STOP\_REACTION.

Related to:

MD 36931: \$MA\_SAFE\_VELO\_LIMIT[n]

MD 36963: \$MA\_SAFE\_VELO\_STOP\_REACTION[n]

36962	SAFE_POS_STOP_MODE	A05, -			FBSI	
-	Stop reaction for safe end position	BYTE			PowerOn	
-						
-	-	2	2	4	7/2	M

**Description:** The stop reaction defined in this data is triggered if safe end position 1 or 2 is overrun.

2: Stop C

3: Stop D

4: Stop E

Related to:

MD 36934: \$MA\_SAFE\_POS\_LIMIT\_PLUS[n]

MD 36935: \$MA\_SAFE\_POS\_LIMIT\_MINUS[n]

36963	SAFE_VELO_STOP_REACTION	A05, -			FBSI	
-	Stop reaction for safe velocity	BYTE			PowerOn	
-						
-	4	2, 2, 2, 2	0	14	7/2	M

**Description:** The stop reaction defined in this data is triggered if the limit value for the safe velocity 1, 2, 3 or 4 is exceeded.

= 0, 1, 2, 3 stand for SG1, SG2, SG3, SG4

The units digit defines the selection of the stop reaction for each specific safe velocity when the safe velocity is exceeded.

The tens digit defines the behavior in the case of a failure of communication to the drive for each specific safe velocity if a time greater than 0 has been parameterized in \$MN\_SAFE\_PULSE\_DIS\_TIME\_BUSFAIL.

Value      Meaning

0: Stop A

1: Stop B

2: Stop C

3: Stop D

4: Stop E

10: Stop A, additionally, in the event of failure of communication to the drive, pulses are not disabled immediately if this safe velocity level is active

11: Stop B, additionally, in the event of failure of communication to the drive, pulses are not disabled immediately if this safe velocity level is active

12: Stop C, additionally, in the event of failure of communication to the drive, pulses are not disabled immediately if this safe velocity level is active

13: Stop D, additionally, in the event of failure of communication to the drive, pulses are not disabled immediately if this safe velocity level is active

14: Stop E, additionally, in the event of failure of communication to the drive, pulses are not disabled immediately if this safe velocity level is active

Special cases:

This MD is only active when MD 36961 and drive parameter p9561 have the value 5.

Related to:

MD 10089: \$MN\_SAFE\_PULSE\_DIS\_TIME\_BUSFAIL

MD 36961: \$MA\_SAFE\_VELO\_STOP\_MODE

36964	SAFE_IPO_STOP_GROUP	A01, A05, -			FBSI	
-	Safety-integrated IPO-response grouping	BYTE			Reset	
-						
-	-	0	0	1	7/2	M

**Description:** This MD is only active with Safety Integrated axes and spindles. It influences the channel-wide IPO response distribution of Safety Integrated:

0 = Default: All other axes/spindles in the channel are informed of the IPO stop response of this axis.

1 = For internal stops, the axes and machining spindles interpolating with the axis in question are also influenced via the triggered safety alarms. Other axes/spindles in the channel, however, continue without disturbance. In the case of external stops (without an alarm) all other axes/spindles are not influenced by the safety axis/spindle stop. This allows, for example, the safe cancellation of the pulses of a spindle (using external Stop A) so that the spindle can be turned manually but still move the axes safely with monitoring.

If the other axes/spindles stop together with the safety axis/spindle in certain machining situations, the user must implement this at his own responsibility using the PLC or synchronous action operations.

36965	SAFE_PARK_ALARM_SUPPRESS	A01, -			FBSI	
-	Alarm suppression on parking axis	BOOLEAN			PowerOn	
-						
-	-	FALSE	-	-	7/2	M

**Description:** This MD is only active for Safety Integrated axes/spindles.

0 = Default setting: Alarms 27000/A01797 are displayed when parking is selected.

1 = Alarms 27000/A01797 are not displayed when parking is selected. This is necessary for axes that are disconnected on the encoder side during the machining process (e.g. dressing axes). The alarms are displayed when parking is deselected again.

36966	SAFE_BRAKETEST_TORQUE	A05, -			FBSI	
%	Holding torque for brake test	DOUBLE			PowerOn	
CTEQ						
-	-	5.0	0.0	800.0	7/2	M

**Description:** Specification of the torque and force for the functional test of the brake mechanism.

This torque and force must be able to be exerted on the applied brake during the test without the axis starting to move.

1.3 NC machine data

SINAMICS: The percentage value entered here is related to drive parameter p2003 of the axis.

The following supplementary conditions apply to SINAMICS:

If the current torque is more than 85% of the test torque when the brake test is selected (that is with the brake off) the brake test is canceled with alarm 20095. This ensures that the motor can stop the axis even if the brake is defective.

If the brake test is made with the drive parameter p1532 (MD36968 \$MA\_SAFE\_BRAKETEST\_CONTROL bit0 = 0), the safety reserve required is increased by double the difference between the current holding torque and the value in parameter p1532.

Release of the corresponding test function via MD37000 \$MA\_FIXED\_STOP\_MODE bit 1.

36967	SAFE_BRAKETEST_POS_TOL		A05, -	FBSI
mm, degrees	Position tolerance for brake test		DOUBLE	PowerOn
CTEQ				
-	-	1.0	-	7/2 M

**Description:** Maximum position tolerance for the functional test of the brake mechanics. The functional test of the brake mechanics is canceled if the axis position deviates by more than this tolerance from the position at selection of the brake test. The corresponding test function is enabled by MD37000 \$MA\_FIXED\_STOP\_MODE bit 1.

36968	SAFE_BRAKETEST_CONTROL		A05, -	-
-	Advanced settings for the brake test		DWORD	PowerOn
CTEQ				
-	-	0	0	3 7/2 M

**Description:** Advanced settings for the brake test.  
 Bit 0: Selection of the average value of the torque limit  
 = 0: SINAMICS: Drive parameter p1532 is used as the average value of the torque limit  
 = 1: The torque measured at the time of selection of the brake test is used as the average value of the torque limit  
 Bit 1: Criterion for reaching the torque limit in the PLC  
 = 0: The torque limit must be reached during the programmed traversing distance  
 = 1: The torque limit must be reached during the programmed time (PLC)

36969	SAFE_BRAKETEST_TORQUE_NORM		A05, -	FBSI
kgm <sup>2</sup>	Reference variable for brake test holding torque		DOUBLE	PowerOn
CTEQ				
-	-	0.0	-	ReadOnly M

**Description:** Setting of the reference variable for torques. All torques indicated as relative value refer to this reference variable. This MD is an image of drive parameter p2003

36970	SAFE_SVSS_DISABLE_INPUT	A01,-	FBSI
-	Input assignment SBH/SG deselection	DWORD	PowerOn
-			
-	-	0	-
-	-	-	-
-	-	7/2	M

**Description:** This data defines the NCK input for selecting/deselecting the functions SBH and SG.

Signal                      Meaning  
= 0    SG or SBH is selected  
= 1    SG and SBH are deselected

Structure:  
Special cases:  
-    Entry of 0 means there is no existing assignment, the input remains fixed at 0, SG and SBH cannot be deselected.  
-    Entry of 80 00 00 00 means there is no existing assignment, the input remains fixed at 1.  
-    If a single output signal is placed on a terminal, the signal is processed inverted if MD bit 31 is set.  
-    If several output signals are placed on the same terminal, the signal concerned is initially inverted if MD bit 31 is set.  
If MD bit 31 is set, the signal concerned is initially inverted. The (if applicable inverted) output signals are then AND-ed. The result is output on the terminal.

Related to:  
MD 10366: \$MN\_HW\_ASSIGN\_DIG\_FASTIN  
MD 13010: \$MN\_DRIVE\_LOGIC\_NR

References:                      /FB/, A4, Digital and Analog NCK I/Os

36971	SAFE_SS_DISABLE_INPUT	A01,-	FBSI
-	Input assignment SBH deselection	DWORD	PowerOn
-			
-	-	0	-
-	-	-	-
-	-	7/2	M

**Description:** Assignment of the NCK input for deselecting the function safe operational stop.

Structure: See \$MA\_SAFE\_SVSS\_DISABLE\_INPUT

Assignment of the terminal level for the safe functions if either safe velocity or safe operational stop have been activated.

Signal                      Meaning  
= 0    Safe operational stop is selected  
= 1    Safe operational stop is deselected (only if other functions have not triggered a STOP C, D or E)

Special cases:  
-    The signal is processed inverted if MD bit 31 is set.  
-    This input is irrelevant if SG and SBH have been deselected (see \$MA\_SAFE\_SVSS\_DISABLE\_INPUT).

Related to:  
MD 36970: \$MA\_SAFE\_SVSS\_DISABLE\_INPUT

1.3 NC machine data

36972	SAFE_VELO_SELECT_INPUT	A01, -	FBSI
-	Input assignment SG selection	DWORD	PowerOn
-			
-	2	0, 0	- - 7/2 M

**Description:** This data defines the two inputs for selecting SG1, SG2, SG3 or SG4.  
 Structure: See \$MA\_SAFE\_SVSS\_DISABLE\_INPUT  
 n = 1, 0 stand for bit 1, 0 for selecting SG1 to SG4  
 Assignment of the input bits to the safe velocities:

Bit 1	Bit 0	Selected SG
0	0	SG1
0	1	SG2
1	0	SG3
1	1	SG4

Special cases:  
 The signal is processed inverted if the MD bits 31 are set.

36973	SAFE_POS_SELECT_INPUT	A01, -	FBSI
-	Input assignment SE selection	DWORD	PowerOn
-			
-	-	0	- - 7/2 M

**Description:** This data defines the input for selecting safe limit positions 1 or 2.  
 Structure see: \$MA\_SAFE\_SVSS\_DISABLE\_INPUT  
 Signal            Meaning  
 = 0 SE1 is active  
 = 1 SE2 is active  
 Special cases:  
 The signal is processed inverted if MD bit 31 is set.  
 Related to:  
 MD 36970: \$MA\_SAFE\_SVSS\_DISABLE\_INPUT.

36974	SAFE_GEAR_SELECT_INPUT	A01, -	FBSI
-	Input assignment speed ratio selection	DWORD	PowerOn
-			
-	3	0, 0, 0	- - 7/2 M

**Description:** Assignment of the input terminals for selecting the gear ratio (gear stage).  
 Structure: See \$MA\_SAFE\_SVSS\_DISABLE\_INPUT  
 n = 2, 1, 0 stand for bit 2, 1, 0 for selecting gear stages 1 to 8

Bit 2	Bit 1	Bit 0	Active gear stage
0	0	0	Stage 1
0	0	1	Stage 2
0	1	0	Stage 3
...	...	...	...
1	1	1	Stage 8

Special cases:  
 The signals are processed inverted if the MD bits 31 are set.  
 Related to:  
 MD 36970: \$MA\_SAFE\_SVSS\_DISABLE\_INPUT



36977	SAFE_EXT_STOP_INPUT	A01,-	FBSI
-	Input assignment for external stop request	DWORD	PowerOn
-			
-	4	0, 0, 0, 0	- - 7/2 M

**Description:** This data defines the NCK inputs for selecting/deselecting the external brake requests.

n = 0, 1, 2, 3 stand for the various braking modes

n = 0: Assignment for "Deselect external stop A" (SH, disabling of pulses)

n = 1: Assignment for "Deselect external stop C" (braking at the current limit)

n = 2: Assignment for "Deselect external stop D" (path braking)

n = 3: Assignment for "Deselect external stop E" (ESR + path braking)

Structure: See \$MA\_SAFE\_SVSS\_DISABLE\_INPUT

Special cases:

The signals are processed inverted if the MD bits 31 are set. The signal "Deselect external stop A" cannot be parameterized inverted. A parameter error is reported if there is an error.

36978	SAFE_OVR_INPUT	A01,-	FBSI
-	Input assignment for SG override	DWORD	PowerOn
-			
-	4	0, 0, 0, 0	- - 7/2 M

**Description:** Assignment of the NCK inputs for the override of the limit values of safe velocities 2 and 4.

Structure: See \$MA\_SAFE\_SVSS\_DISABLE\_INPUT

n = 3, 2, 1, 0 stand for the override selection bits 3, 2, 1, 0

Assignment of the input bits to the SG override values:

Bit 3	Bit 2	Bit 1	Bit 0	
0	0	0	0	Override 0 is selected
0	0	0	1	Override 1 is selected
to ...				
1	1	1	1	Override 15 is selected

The following machine data defines the override factor itself (percentage value):

MD 36932: \$MA\_SAFE\_VELO\_OVR\_FACTOR[n]

Special cases:

- The function "Override safe velocity" is enabled by MD 36901 \$MA\_SAFE\_FUNCTION\_ENABLE.

- The signals are processed inverted if the MD bits 31 are set.

Related to:

MD 36932: \$MA\_SAFE\_VELO\_OVR\_FACTOR[n]

36980	SAFE_SVSS_STATUS_OUTPUT	A01,-	FBSI
-	Output assignment SBH/SG active	DWORD	PowerOn
-			
-	-	0	- - 7/2 M

**Description:** Assignment of the output for reporting the status of the functions safe velocity and safe operational stop.

1.3 NC machine data

Signal                    Meaning  
 = 0   SG and SBH are not active  
 = 1   SG or SBH is active  
 Special cases:  
 -     Entry of 0 means  
 there is no existing assignment, the output is not affected.  
 -     Entry of 80 00 00 00 means there is no existing assignment, the output  
 remains fixed at 1.  
 -     If a single output signal is placed on a terminal, the  
 the signal is processed inverted if MD bit 31 is set.  
 -     If several output signals are placed on the same terminal, then  
 the signal concerned is initially inverted if MD bit 31 is set. The (if  
 applicable inverted) output signals are then AND-ed. The result is output on  
 the terminal.  
 Related to:  
 MD 10368: \$MN\_HW\_ASSIGN\_DIG\_FASTOUT  
 MD 13010: \$MN\_DRIVE\_LOGIC\_NR  
 References:                    /FB/, A4, Digital and Analog NCK I/Os

36981	SAFE_SS_STATUS_OUTPUT	A01, -	FBSI
-	Output assignment SBH active	DWORD	PowerOn
-			
-	-	0	-
			7/2     M

**Description:**            This data defines the output or the system variable for the message "SBH  
 active".  
 Structure see: \$MA\_SAFE\_EXT\_STOP\_INPUT  
 Signal                    Meaning  
 = 0   SBH is inactive  
 = 1   SBH is active  
 Special cases:  
 The signal is processed inverted if MD bit 31 is set.

36982	SAFE_VELO_STATUS_OUTPUT	A01, -	FBSI
-	Output assignment for active SG selection	DWORD	PowerOn
-			
-	2	0, 0	-
			7/2     M

**Description:**            This data defines the outputs or the system variables for the messages "SBH  
 active bit 0" and "SBH active bit 1".  
 Structure see: \$MA\_SAFE\_EXT\_STOP\_INPUT  
 n = 1, 0                    stand for SG active bits 1, 0  
 SG active  
 Bit 1   Bit 0   Meaning:  
 = 0   = 0     SG1 active if SBH/SG are active and SBH is not active  
                   SBH active if SBH/SG are active and SBH is active  
 = 1   = 0     SG2 active  
 = 0   = 1     SG3 active  
 = 1   = 1     SG4 active  
 Special cases:  
 The signal is processed inverted if MD bit 31 is set.

36985	SAFE_VELO_X_STATUS_OUTPUT	A01,-	FBSI
-	Output assignment n < n_x	DWORD	PowerOn
-			
-	-	0	-
-	-	-	-
-	-	7/2	M

**Description:** This data defines the output or the system variable for the message "n < nx".  
Structure see: \$MA\_SAFE\_SVSS\_STATUS\_OUTPUT  
Signal            Meaning  
= 0 Actual speed is greater than the limit speed in \$MA\_SAFE\_VELO\_X  
= 1 Actual speed is less than or equal to the limit speed in \$MA\_SAFE\_VELO\_X  
Related to:        \$MA\_SAFE\_VELO\_X  
Special cases:  
The signal is processed inverted if MD bit 31 is set.

36987	SAFE_REFP_STATUS_OUTPUT	A01,-	FBSI
-	Output assignment axis safely referenced	DWORD	PowerOn
-			
-	-	0	-
-	-	-	-
-	-	7/2	M

**Description:** This data defines the output for the message "Axis safely referenced".  
Structure see: \$MA\_SAFE\_SVSS\_STATUS\_OUTPUT  
Signal            Meaning  
= 0 Axis is not safely referenced (that is the safe limit monitoring is inactive!)  
= 1 Axis is safely referenced  
Special cases:  
The signal is processed inverted if MD bit 31 is set.

36988	SAFE_CAM_PLUS_OUTPUT	A01,-	FBSI
-	Output assignment SN1 + to SN4 +	DWORD	PowerOn
-			
-	4	0, 0, 0, 0	-
-	-	-	-
-	-	7/2	M

**Description:** This data defines the outputs for the cam signals SN1 + to SN4 +.  
Structure see: \$MA\_SAFE\_SVSS\_STATUS\_OUTPUT  
n = 0, 1, 2, 3 correspond to the assignments for plus cams SN1 +, SN2 +, SN3 +, SN4 +  
Signal            Meaning  
= 0 Axis is left of the cam (actual value < cam position)  
= 1 Axis is right of the cam (actual value > cam position)  
Special cases:  
The signal is processed inverted if MD bit 31 is set.

36989	SAFE_CAM_MINUS_OUTPUT	A01,-	FBSI
-	Output assignment SN1 - to SN4 -	DWORD	PowerOn
-			
-	4	0, 0, 0, 0	-
-	-	-	-
-	-	7/2	M

**Description:** This data defines the outputs for the minus cams SN1 - to SN4 -.  
Structure see: \$MA\_SAFE\_SVSS\_STATUS\_OUTPUT  
n = 0, 1, 2, 3 correspond to the assignments for minus cams SN1 -, SN2 -, SN3 -, SN4 -

1.3 NC machine data

Signal            Meaning  
 = 0 Axis is left of the cam (actual value < cam position)  
 = 1 Axis is right of the cam (actual value > cam position)

Special cases:

- If a cam is negated and placed with another cam on an output, it is AND-ed and a single cam signal is generated for range recognition.

36990	SAFE_ACT_STOP_OUTPUT	A01, -	FBSI
-	Output assignment of active stop	DWORD	PowerOn
-			
-	4	0, 0, 0, 0	- - 7/2 M

**Description:** Assignment of the output terminals for displaying the currently active stop.  
 Index 0: Assignment for "Stop A/B active"  
 Index 1: Assignment for "Stop C active"  
 Index 2: Assignment for "Stop D active"  
 Index 3: Assignment for "Stop E active"

36992	SAFE_CROSSCHECK_CYCLE	A01, A08, -	FBSI
s	Display of axial cross-check cycle	DOUBLE	PowerOn
-			
-	-	0.0	- - ReadOnly M

**Description:** Display data for safety functions: Effective axial cross-check cycle in seconds.  
 The cycle derives from INFO\_SAFETY\_CYCLE\_TIME and the number of data to be cross-checked.  
 The axial value displayed depends on the associated drive module as the length of cross-check lists varies between performance-1/standard-2 and performance-2 modules.

36993	SAFE_CONFIG_CHANGE_DATE	A08, -	FBSI
-	Date/time of last change of SI axis MD	STRING	PowerOn
-			
-	7	, , , , , ,	- - ReadOnly M

**Description:** Display data for safety functions:  
 Date and time of the last configuration change to safety related NCK axis machine data.  
 Changes to the machine data included in the calculation of axial checksums SAFE\_ACT\_CHECKSUM are recorded.

36994	SAFE_PREV_CONFIG	EXP, -	FBSI
-	Data of previous safety axis configuration	DWORD	PowerOn
-			
-	9	0, 0, 0, 0, 0, 0, 0, 0, 0, 0	- - ReadOnly M

**Description:** Intermediate buffer for storing previous safety configuration data  
 Index [0]: Status flag for change history  
 Index [1]: Previous value of function enable  
 Index [2]: Previous value of set checksum SAFE\_DES\_CHECKSUM[0]  
 Index [3]: Last value of function enable before standard data were loaded

Index [4]: Last value of set checksum SAFE\_DES\_CHECKSUM[0] before standard data were loaded.

Index [5]: Previous value of set checksum SAFE\_DES\_CHECKSUM[1]

Index [6]: Last value of set checksum SAFE\_DES\_CHECKSUM[1] before standard data were loaded

Index [7]: Previous value of set checksum SAFE\_DES\_CHECKSUM[2]

Index [8]: Last value of set checksum SAFE\_DES\_CHECKSUM[2] before standard data were loaded

36995	SAFE_STANDSTILL_POS	EXP, A08, -	FBSI
-	Standstill position	DWORD	PowerOn
-			
-	-	0	-
-	-	-	-
-	-	7/0	M

**Description:** This MD displays the current standstill position.  
 In order to be able to test the referencing of the axis for plausibility at the next control Power ON, the current position of the axis is stored in non-volatile memory in the following cases:

- On selection of safe operational stop (SBH)
- Cyclically, if SE/SN are activated

Special cases:  
 If the MD is changed manually, this will be detected at the next Power ON and plausibility test. Another user agreement is required after referencing.

36997	SAFE_ACKN	A08, -	FBSI
-	User acknowledge	DWORD	PowerOn
-			
-	-	0	-
-	-	-	-
-	-	7/2	M

**Description:** This data displays the status of the user agreement.  
 The user agreement can be given or withdrawn by the user by means of a corresponding screen.  
 If the software detects internally that the reference to the machine has been lost, then it is "automatically" withdrawn (e.g. on changing gear or if the plausibility comparison with the stored standstill position fails during referencing).  
 Special cases:  
 If the MD is changed manually, then this will be detected at the next Power ON and plausibility test. Another user agreement is required after referencing.

36998	SAFE_ACT_CHECKSUM	A01, A08, -	FBSI
-	Actual checksum	DWORD	PowerOn
-			
-	3	0, 0, 0	-
-	-	-	-
-	-	ReadOnly	M

**Description:** The actual checksum calculated after POWER ON or on RESET is entered here over the current values of the safety relevant machine data.  
 Assignment of the field indices:  
 Index 0: Axial monitoring functions  
 Index 1: Hardware component recognition  
 Index 2: Drive assignment

36999	SAFE_DES_CHECKSUM	A01, A08, -			FBSI	
-	Desired (expected) checksum	DWORD			PowerOn	
-						
-	3	0, 0, 0	-	-	7/1	M

**Description:** In this data, the set checksum stored at the last machine acceptance appears above the current values of the safety relevant machine data.

Assignment of the field indices:

Index 0: Axial monitoring functions

Index 1: Hardware component recognition

Index 2: MDs for drive assignment

37000	FIXED_STOP_MODE	A10, -			-	
-	Travel to fixed stop mode	BYTE			PowerOn	
CTEQ						
-	-	0x0	0x0	0x3	7/2	M

**Description:** Activation of subfunctions of "Travel to fixed stop".

Bit 0: Reserved

Bit 1: Enable the Safe brake test

= 0: Safe brake test not available

= 1: Safe brake test can be executed under the control of the PLC

Note: The user must ensure that Travel to fixed stop and Safe brake test are not assigned simultaneously.

37002	FIXED_STOP_CONTROL	A10			F1	
-	Sequence control for travel to fixed stop	BYTE			PowerOn	
-						
-	-	0x0	0x0	0x3	7/2	M

**Description:** Sequence control for travel to fixed stop.

Bit 0: behavior on pulse disable at fixed stop

= 0: travel to fixed stop is canceled

= 1: travel to fixed stop is interrupted, i.e. the drive is without power.

As soon as the pulse disable is canceled again, the drive continues with the limited torque.

Control of the torque injection see bit 1.

Bit 1: behavior after pulse disable at the fixed stop

= 0: the torque is applied in steps.

= 1: the torque is applied in ramps (see MD37012

\$MA\_FIXED\_STOP\_TORQUE\_RAMP\_TIME)

37010	FIXED_STOP_TORQUE_DEF	A10			-	
%	Default fixed stop clamping torque	DOUBLE			PowerOn	
CTEQ						
-	-	5.0	0.0	100.0	7/2	M

**Description:** The clamping torque is set in this machine data as a % of the maximum motor torque (in the case of FDD this corresponds to the % of the max. current set-point).

The clamping torque becomes active as soon as the fixed stop is reached or the NC/PLC interface signal DB31, ... DBX1.1 (Acknowledge fixed stop reached) has been set.

The entered value is a default and is active only as long as

- no clamping torque has been programmed with command FXST[x]
- the clamping torque set in SD 43510: FIXED\_STOP\_TORQUE was not changed after fixed stop had been reached.

In the case of "Travel to fixed stop" with an analog drive (611-A) and fixed clamping torque, the torque limit set in the drive should be the same as the limit entered in MD37070 \$MA\_FIXED\_STOP\_ANA\_TORQUE.

Related to:

MD37070 \$MA\_FIXED\_STOP\_ANA\_TORQUE

(torque limit on approach to fixed stop for analog drives)

SD 43510: FIXED\_STOP\_TORQUE

(clamping torque for travel to fixed stop)

37012	FIXED_STOP_TORQUE_RAMP_TIME	A10	-
s	Time period until reaching the changed torque limit	DOUBLE	NEW CONF
-			
-	-	0.0	-
			7/2 M

**Description:** Period in seconds until the changed torque limit is reached.  
The value 0.0 deactivates the ramp function.

37014	FIXED_STOP_TORQUE_FACTOR	A10	TE3
-	Adaption factor torque limit	DOUBLE	NEW CONF
-			
-	-	1.0	-
			7/2 M

**Description:** Interface factor torque limit.  
With this factor, the torque limit of linked slave axes (MD 37250) can be weighted additionally.  
Even with different motors, the torque limits can be kept equal in all linked axes.

37020	FIXED_STOP_WINDOW_DEF	A05, A10	-
mm, degrees	Default fixed-stop monitoring window	DOUBLE	PowerOn
CTEQ			
-	-	1.0	0.0
			1.0e15 7/2 M

**Description:** This machine data is used to enter the default for the standstill monitoring window at fixed stop.

Fixed stop monitoring becomes active as soon as the fixed stop is reached, i.e. NC/PLC interface signal DB31, ... DBX62.5 (Fixed stop reached) is set. If the position at which the fixed stop is detected is left by more than the tolerance specified in MD37020 \$MA\_FIXED\_STOP\_WINDOW\_DEF alarm 20093 "Fixed stop monitoring has responded" is output and the "FXS" function is deselected.

The value entered is a default setting and is active only as long as

- no fixed stop monitoring window is programmed with command FXSW[x],
- the fixed stop monitoring window is not changed via SD 43520: FIXED\_STOP\_WINDOW (after reaching of fixed stop).

Related to:

SD43520 \$SA\_FIXED\_STOP\_WINDOW (fixed stop monitoring window)

37030	FIXED_STOP_THRESHOLD	A10, -			-	
mm, degrees	Threshold for fixed stop detection	DOUBLE			NEW CONF	
-						
-	-	2.0	0.0	1.0e15	7/2	M

**Description:**

Threshold value for fixed stop detection.

The contour deviation is checked for this threshold as a criterion for reaching the fixed stop. Waiting until the set torque limit is reached is a further condition for digital drives.

This machine data is only active if MD37040 \$MA\_FIXED\_STOP\_BY\_SENSOR = 0.

The NC/PLC interface signal DB31, ... DBX62.5 (Fixed stop reached) is set if the axial contour deviation exceeds the threshold value set in MD37030 \$MA\_FIXED\_STOP\_THRESHOLD.

MD irrelevant to:

MD37040 \$MA\_FIXED\_STOP\_BY\_SENSOR = 1

Related to:

NC/PLC interface signal DB31, ... DBX62.5 (Fixed stop reached)

37040	FIXED_STOP_BY_SENSOR	A10			-	
-	Fixed stop detection by sensor	BYTE			Immediately	
CTEQ						
-	-	0	0	3	7/2	M

**Description:**

This machine data defines how the criterion "Fixed stop reached" is determined.

A change of this machine data becomes active with the next selection of travel to fixed stop.

MD=0

The criterion "Fixed stop reached" is determined internally on the basis of the axial FIXED\_STOP\_THRESHOLD.

MD=1

The criterion "Fixed stop reached" is determined via an external sensor and signalled to the NC via the NC/PLC interface signal DB31, ... DBX1.2 (Sensor fixed stop).

MD=2

The criterion "Fixed stop reached" is accepted if either the contour monitoring (MD = 0) or the signal of the external sensor (MD = 1) has responded.

MD=3

Triggering through movement analysis (only as an alternative to triggering via sensor)

Related to:

MD37030 \$MA\_FIXED\_STOP\_THRESHOLD

(threshold for fixed stop detection)

NC/PLC interface signal DB31, ... DBX1.2 (Sensor fixed stop)

37050	FIXED_STOP_ALARM_MASK	A05, A10			-	
-	Enable of the fixed stop alarms	BYTE			NEW CONF	
-						
-	-	1	0	15	7/2	M

**Description:**

This machine data defines whether the alarms

20091 "Fixed stop not reached",

20094 "Fixed stop canceled" and



25042 "FOC: Standstill monitoring" are output.  
 MD= 0  
 Suppression of alarm 20091 "Fixed stop not reached"  
 MD= 2  
 Suppression of alarms  
 20091 "Fixed stop not reached" and  
 20094 "Fixed stop canceled" (SW 4 and higher)  
 MD=3  
 Suppression of alarm 20094 "Fixed stop canceled" (SW 4 and higher)  
 Add value 8  
 Suppression of alarm 25042 "FOC: Standstill monitoring" (SW 7 and higher)  
 Errors occurring during travel to fixed stop can be read out from the status variable \$AA\_FXS irrespective of the setting of the alarm screen.  
 Standard: 1 = Alarms 20091, 20094 and 25042 are triggered

37052	FIXED_STOP_ALARM_REACTION	A05, A10	-
-	Reaction with fixed stop alarms	BYTE	PowerOn
-			
-	-	0	-
-	-	-	-
-	-	7/1	M

**Description:** Behavior of VDI signal "Mode group ready" in case of fixed stop alarms:  
 Bit value = 0: "Mode group ready" will be deleted (drives de-energized)  
 Bit value = 1: "Mode group ready" remains active  
 Bit0: Alarm 20090 Travel to fixed stop not possible  
 Bit1: Alarm 20091 Fixed stop not reached  
 Bit2: Alarm 20092 Travel to fixed stop still active  
 Bit3: Alarm 20093 Standstill monitoring at fixed stop has triggered  
 Bit4: Alarm 20094 Travel to fixed stop canceled  
 All other bits without meaning.  
 Standard: 0 = All alarms de-energize the drives

37060	FIXED_STOP_ACKN_MASK	A10	-
-	Waiting for PLC acknowledgements during travel to fixed stop	BYTE	PowerOn
CTEQ			
-	-	0x0	0x0
-	-	0x3	7/2
-	-		M

**Description:** This machine data defines whether or not the NC waits for acknowledgment messages from the PLC when the "Travel to fixed stop" function is active.  
 Bit 0 = 0  
 Once the NC has transmitted the interface signal DB31, ... DBX62.4 (Activate travel to fixed stop) to the PLC, it starts the programmed traversing.  
 Bit 0 = 1  
 After the NC has transmitted the interface signal DB31, ... DBX62.4 (Activate travel to fixed stop) to the PLC, it waits for the PLC to acknowledge with the interface signal DB31, ... DBX3.1 (Enable travel to fixed stop) and then starts the programmed traversing.  
 Bit 0 = 1 should be set for analog drives so that the motion is not started before the PLC has limited the torque in the drive.  
 Bit 1 = 0  
 Once the NC has transmitted the interface signal DB31, ... DBX62.5 (Fixed stop reached) to the PLC, the program advances to the next block.

1.3 NC machine data

Bit 1 = 1

After the NC has transmitted the interface signal DB31, ... DBX62.5 (Fixed stop reached) to the PLC, it waits for the PLC to acknowledge with the interface signal DB31, ... DBX1.1 (Acknowledge fixed stop reached), outputs the programmed torque and then advances to the next block.

Bit 1 should be set for analog drives so that the PLC can switch the drive to torque-controlled operation if a programmable clamping torque has to be specified.

With digital drives (PROFIdrive), the "Travel to fixed stop" function can be executed without any acknowledgments, thus allowing program run times to be reduced.

Related to:

NC/PLC interface signal DB31, ... DBX62.4 (Activate travel to fixed stop)

NC/PLC interface signal DB31, ... DBX3.1 (Enable travel to fixed stop)

NC/PLC interface signal DB31, ... DBX62.5 (Fixed stop reached)

NC/PLC interface signal DB31, ... DBX1.1 (Acknowledge fixed stop reached)

37070	FIXED_STOP_ANA_TORQUE	A10	-
%	Torque limit when approaching the fixed stop for analog drives	DOUBLE	PowerOn
CTEQ			
-	-	5.0	0.0
		100.0	7/2
			M

**Description:** Only for analog drives (not relevant for PROFIdrive digital drives):  
 This machine data defines an internal NC torque limit for analog drives. It is specified as a percentage of the maximum drive torque (corresponds to % of max. current setpoint with FDD).  
 This torque limit is active in the NC from the start of the motion (acceleration torque) until the instant the fixed stop is reached.  
 The torque limit must have the same effect as the torque limit set in the drive.  
 This torque limit is required to ensure that:

- There are no step changes in torque during switchover from speed-controlled to current-controlled or torque-controlled operation
- The acceleration is reduced to the correct value in the NC

37080	FOC_ACTIVATION_MODE	A10	-
-	Initial setting of modal torque/force limitation	BYTE	PowerOn
-			
-	-	0x0	0x0
		0x3	7/2
			M

**Description:** The initial setting of the modal torque/force limitation is set with this MD after reset and PowerOn:  
 Bit 0: Response after PowerON  
 = 0 : FOCOF  
 = 1 : FOCON (modal)  
 Bit 1: Response after reset  
 = 0 : FOCOF  
 = 1 : FOCON (modal)  
 Default setting: FOCOF after reset and PowerOn

37100	GANTRY_AXIS_TYPE			A01, A10	G1,TE1,Z3	
-	Gantry axis definition			BYTE	PowerOn	
CTEQ						
-	-	0	0	33	7/2	M

**Description:** General: decimal representation, with a b

a

0: Leading axis

1: Synchronized axis

b

0: No gantry axis

1: Axis in gantry grouping 1

2: Axis in gantry grouping 2

3: Axis in gantry grouping 3

...

A max. of 8 gantry groupings is possible.

Examples:

11: Axis is a synchronized axis in a gantry grouping 1

2: Axis is a leading axis in gantry a grouping 2

12: Axis is a synchronized axis in a gantry grouping 2

3: Axis is a leading axis in a gantry grouping 3

13: Axis is a synchronized axis in a gantry grouping 3

Special cases:

Alarm 10650 "Incorrect gantry machine data" and 10651 "Gantry unit not defined" in the case of an incorrect gantry axis definition.

Related to:

MD37110 \$MA\_GANTRY\_POS\_TOL\_WARNING (gantry warning limit)

MD37120 \$MA\_GANTRY\_POS\_TOL\_ERROR (gantry trip limit)

MD37130 \$MA\_GANTRY\_POS\_TOL\_REF (gantry trip limit during referencing)

37110	GANTRY_POS_TOL_WARNING			A05, A10	G1,Z3	
mm, degrees	Gantry warning limit			DOUBLE	Reset	
-						
-	-	0.0	-1e15	1e15	7/2	M

**Description:** Value > 0

With gantry axes, the difference between the position actual values of the leading and synchronized axes is constantly monitored.

MD37110 \$MA\_GANTRY\_POS\_TOL\_WARNING is used to define a limit value for the position actual value difference; when the limit is exceeded, warning 10652 "Warning limit exceeded" is output. However, the gantry axes are not stopped internally in the control. The warning threshold must therefore be selected so that the machine can withstand the position actual value deviation between the gantry axes without sustaining mechanical damage.

Furthermore, the NC/PLC interface signal DB31, ... DBX101.3 (Gantry warning limit exceeded) to the PLC is set to "1". The PLC user program can thus initiate the necessary measures (e.g. program interruption at block end) when the warning limit is exceeded.

As soon as the current position actual value difference has dropped below the warning limit again, the message is canceled and the interface signal "Gantry warning limit exceeded" is reset.

Effect of the gantry warning limit on the gantry synchronization process:  
 The position actual value difference between the leading and synchronized axes is determined during gantry synchronization. If the deviation is less than the gantry warning limit, the synchronizing motion of the gantry axes is automatically started internally in the control.

Otherwise the synchronizing motion has to be initiated via the PLC interface (interface signal DB31, ... DBX29.4 (Start gantry synchronization process))  
 Value = 0

The setting MD37110 \$MA\_GANTRY\_POS\_TOL\_WARNING = 0 is the monitoring for violation of the warning limit deactivated.

The gantry synchronization is not initiated internally in the control.

Special cases:

Alarm 10652 "Warning limit exceeded" in response to violation of the gantry warning limit.

Related to:

MD37100 \$MA\_GANTRY\_AXIS\_TYPE Gantry axis definition

MD37120 \$MA\_GANTRY\_POS\_TOL\_ERROR Gantry trip limit

MD37130 \$MA\_GANTRY\_POS\_TOL\_REF

Gantry trip limit during referencing

NC/PLC interface signal DB31, ... DBX101.3 (Gantry warning limit exceeded)

NC/PLC interface signal DB31, ... DBX29.4 (Start gantry synchronization process)

37120	GANTRY_POS_TOL_ERROR	A05, A10			G1,Z3	
mm, degrees	Gantry trip limit	DOUBLE			PowerOn	
-						
-	-	0.0	-1e15	1e15	7/2	M

**Description:**

With gantry axes, the difference between the position actual values of the leading and synchronized axes is continuously monitored. MD37120 \$MA\_GANTRY\_POS\_TOL\_ERROR defines the maximum permissible deviation in position actual value between the synchronized axis and the leading axis in the gantry axis grouping. Violation of this limit value is monitored only if the gantry axis grouping is already synchronized (NC/PLC interface signal DB31, ... DBX101.5 (Gantry grouping is synchronized) = 1); otherwise the value set in MD37130 \$MA\_GANTRY\_POS\_TOL\_REF is used.

When this limit value is exceeded, alarm 10653 "Error limit exceeded" is output. The gantry axes are immediately stopped internally in the control to prevent any damage to the machine.

In addition, the NC/PLC interface signal DB31, ... DBX101.2 (Gantry trip limit exceeded) to the PLC is set to "1".

Special cases:

Alarm 10653 "Error limit exceeded" in response to violation of the gantry trip limit.

Related to:

MD37100 \$MA\_GANTRY\_AXIS\_TYPE Gantry axis definition

MD37110 \$MA\_GANTRY\_POS\_TOL\_WARNING Gantry warning limit

MD37130 \$MA\_GANTRY\_POS\_TOL\_REF

Gantry trip limit during referencing

NC/PLC interface signal DB31, ... DBX101.5 (Gantry grouping is synchronized)

NC/PLC interface signal DB31, ... DBX101.2 (Gantry trip limit exceeded)

37130	GANTRY_POS_TOL_REF	A05, A10	G1,Z3
mm, degrees	Gantry trip limit during referencing	DOUBLE	PowerOn
-			
-	-	0.0	-1e15
		1e15	7/2
			M

**Description:** With gantry axes, the difference between the position actual values of the leading and synchronized axes is continuously monitored. MD37130 \$MA\_GANTRY\_POS\_TOL\_REF defines the maximum permissible difference between the position actual values of the synchronized axis and the leading axis that is monitored if the gantry axis grouping has not yet been synchronized (NC/PLC interface signal DB31, ... DBX101.5 (Gantry grouping is synchronized) = 0).

Alarm 10653 "Error limit exceeded" is output if the limit value is exceeded. The gantry axes are immediately stopped internally in the control to prevent any damage to the machine.

In addition, the NC/PLC interface signal DB31, ... DBX101.2 (Gantry trip limit exceeded) to the PLC is set to "1".

Special cases:

Alarm 10653 "Error limit exceeded" in response to violation of the gantry trip limit.

Related to:

MD37100 \$MA\_GANTRY\_AXIS\_TYPE Gantry axis definition  
MD37110 \$MA\_GANTRY\_POS\_TOL\_WARNING Gantry warning limit  
MD37120 \$MA\_GANTRY\_POS\_TOL\_ERROR Gantry trip limit  
NC/PLC interface signal DB31, ... DBX101.5 (Gantry grouping is synchronized)  
NC/PLC interface signal DB31, ... DBX101.2 (Gantry trip limit exceeded)

37135	GANTRY_ACT_POS_TOL_ERROR	A05, A10	-
mm, degrees	Current gantry trip limit	DOUBLE	Reset
-			
-	-	0.0	-
			7/2
			M

**Description:** Actual value difference between master axis and slave axis in the case of alarm 10653.  
Leads to alarm 10657 after Power ON.

37140	GANTRY_BREAK_UP	EXP, A01, A10	G1,Z3
-	Invalidate gantry axis grouping	BOOLEAN	Reset
CTEQ			
-	-	FALSE	-
			7/2
			M

**Description:** GANTRY\_BREAK\_UP = "0"  
The forced coupling of the gantry axis grouping remains valid! Monitoring of violation of the gantry warning or trip limit is active!

GANTRY\_BREAK\_UP = "1"  
This breaks up the forced coupling of the gantry grouping, thus allowing all gantry axes in this grouping to be traversed individually in JOG, AUTOMATIC, and MDI modes. Monitoring for violation of the gantry warning or trip limit is deactivated! The NC/PLC interface signal DB31, ... DBX101.5 "gantry grouping is synchronized" is set to "0".

Notice:  
In cases where the gantry axes continue to be mechanically coupled, the machine may sustain damage in this operating state when the leading or synchronized axis is traversed!

1.3 NC machine data

The gantry axes cannot be referenced individually.

Corresponds with:

MD 37100: \$MA\_GANTRY\_AXIS\_TYPE Gantry axis definition

MD 37110: \$MA\_GANTRY\_POS\_TOL\_WARNING Gantry warning limit

MD 37130: \$MA\_GANTRY\_POS\_TOL\_REF

Gantry trip limit during referencing

NC/PLC interface signal DB31, ... DBX101.5 (gantry grouping is synchronized)

NC/PLC interface signal DB31, ... DBX101.2 (gantry trip limit exceeded)

37150	GANTRY_FUNCTION_MASK			A10	-	
-	Gantry functions			DWORD	Reset	
-						
-	-	0x00	0	0x7	7/2	M

**Description:**

Special gantry functions are set with this MD.

The MD is bit-coded, the following bits are assigned:

Bit 0 == 0:

Extended monitoring of the actual value difference is inactive.

An offset between master and slave axes occurring in tracking or BREAK\_UP is not taken into account in the monitoring of the actual value difference.

Alarm 10657 is not output if alarm 10563 occurs before Power OFF.

Bit 0 = 1:

Extended monitoring of the actual value difference is active.

An offset between master and slave axes occurring in tracking or BREAK\_UP is taken into account in the monitoring of the actual value difference.

Prerequisite: The gantry grouping must be rereferenced or resynchronized after control startup.

Alarm 10657 is output if alarm 10563 occurs before Power OFF.

Bit 1 = 0:

Zero mark search direction of the slave axis analogous to MD 34010

Bit 1 = 1:

Zero mark search direction of the slave axis same as for master axis

Bit 2 = 0 :

Alarm 10655 "Synchronization in progress" is output

Bit 2 = 1

Alarm 10655 "Synchronization in progress" is not output

37160	LEAD_FUNCTION_MASK			A10	M3	
-	Functions for master value coupling			DWORD	NEW CONF	
CTEQ						
-	-	0x01	0	0x3	1/1	M

**Description:**

With this MD, special functions of master value coupling are set.

The MD is bit-coded, the following bits are assigned:

Bit 0 = 0:

Dead time compensation is not active at actual value coupling.

Bit 0 = 1:

Dead time compensation is active at actual value coupling.

During actual value coupling, a systematic position offset is created between master and following axis. It is caused by the IPO/position controller dead time between the actual values of master axis and following axis.

For SW 6.4 and higher, this position offset can be compensated by a linear extrapolation of the master value.

Possible velocity fluctuations in the master axis may have an increased impact on the following axis.

The bit must be set for the relevant master axis.

Bit 1 = 0:

The spindle/axis disable of the axis will not become effective with the master value coupling active.

The spindle/axis disable of the master axis becomes effective.

Bit 1 = 1:

The spindle/axis disable is effective for this axis even with the master value coupling active.

The bit must be set for the relevant following axis.

37200	COUPLE_POS_TOL_COARSE			A05, A10	M3,S3,2.4,6.2	
mm, degrees	Threshold value for 'Synchronism coarse'			DOUBLE	NEW CONF	
-						
-	-	1.0	0.0	1.0e15	7/2	M

**Description:** In synchronous mode, the positional difference between the leading and following axis(axis)/spindle(s) is monitored (only DV and AV mode or cmdpos and actpos in the case of CP programming).

The NC/PLC interface signal DB31, ... DBX98.1 (synchronism coarse) is set if the current positional difference is within the tolerance band specified by the threshold value.

Furthermore, this threshold value can be used to define the criterion for block change on activation of synchronous mode or on modification of the speed ratio parameters when the coupling is active in cases where "synchronism coarse" is selected as the block change response condition (see channel-specific MD21320 \$MC\_COUPLE\_BLOCK\_CHANGE\_CTRL\_1 or language instruction COUPDEF, WAITC, CPBC).

Entering a value of "0" always sets the NC/PLC interface signal DB31, ... DBX98.1 "synchronism coarse" to "1" in DV/AV mode or with cmd/actpos.

Corresponds with:

Channel-specific MD21320 \$MC\_COUPLE\_BLOCK\_CHANGE\_CTRL\_1

(block change response in synchronous mode)

NC/PLC interface signal DB31, ... DBX98.1 (synchronism coarse)

37202	COUPLE_POS_TOL_COARSE_2			A05, A10	-	
mm, degrees	Second threshold value for 'synchronism monitoring coarse'			DOUBLE	NEW CONF	
-						
-	-	0.0	0.0	1.0e15	7/2	M

**Description:** Generic coupling - second synchronism monitoring of the synchronism difference on the actual value side in the case of positional couplings - coarse threshold value.

Entering a value of "0" deactivates monitoring.

Entering a value other than "0" starts synchronism monitoring (2) once 'synchronism coarse' has been reached:

The NC/PLC interface signal DB31, ... DBX103.5 (synchronism 2 coarse) indicates whether the synchronism difference on the actual value side violates the threshold value.

If the threshold value is violated, this is indicated by show alarm 22026, which can be canceled.

1.3 NC machine data

Corresponds with:

MD37200 \$MA\_COUPLE\_POS\_TOL\_COARSE

NC/PLC interface signal DB31, ... DBX98.1 (synchronism coarse)

37210	COUPLE_POS_TOL_FINE	A05, A10	M3,S3,2.4
mm, degrees	Threshold value for 'Synchronism fine'	DOUBLE	NEW CONF
-			
-	-	0.5	0.0
		1.0e15	7/2
			M

**Description:**

In synchronous mode, the positional difference between the leading and following axis(axis)/spindle(s) is monitored (only DV and AV mode or cmdpos and actpos in the case of CP programming).

The NC/PLC interface signal DB31, ... DBX98.0 (synchronism fine) is set if the current positional difference is within the tolerance band specified by the threshold value.

Furthermore, this threshold value can be used to define the criterion for block change on selection of synchronous mode or on modification of the speed ratio parameters when the coupling is active in cases where "synchronism fine" is selected as the block change response condition (see channel-specific MD21320 \$MC\_COUPLE\_BLOCK\_CHANGE\_CTRL\_1 or language instruction COUP-DEF, WAITC, CPBC).

Entering a value of "0" always sets the NC/PLC interface signal DB31, ... DBX98.0 (synchronism fine) to "1" in DV/AV mode or with cmd/actpos.

Corresponds with:

Channel-specific MD21320 \$MC\_COUPLE\_BLOCK\_CHANGE\_CTRL\_1

(block change response in synchronous mode)

NC/PLC interface signal DB31, ... DBX98.0 (synchronism fine)

37212	COUPLE_POS_TOL_FINE_2	A05, A10	-
mm, degrees	Second threshold value for 'synchronism monitoring fine'	DOUBLE	NEW CONF
-			
-	-	0.0	0.0
		1.0e15	7/2
			M

**Description:**

Generic coupling - second synchronism monitoring of the synchronism difference on the actual value side in the case of positional couplings - fine threshold value.

Entering a value of "0" deactivates monitoring.

Entering a value other than "0" starts synchronism monitoring (2) once 'synchronism fine' has been reached:

The NC/PLC interface signal DB31, ... DBX103.4 (synchronism 2 fine) indicates whether the synchronism difference on the actual value side violates the threshold value.

If the threshold value is violated, this is indicated by show alarm 22025, which can be canceled.

Corresponds with:

MD37210 \$MA\_COUPLE\_POS\_TOL\_FINE

NC/PLC interface signal DB31, ... DBX98.0 (synchronism fine)



37220	COUPLE_VELO_TOL_COARSE			A05, A10	S3	
mm/min, rev/min	Velocity tolerance 'coarse'			DOUBLE	NEW CONF	
-						
-	-	60.0	-	-	7/2	M

**Description:** In synchronous mode, the velocity difference between the leading and following axis(axis)/spindle(s) is monitored (only VV mode or cmdvel in the case of CP programming).

The NC/PLC interface signal DB31, ... DBX98.1 (synchronism coarse) is set if the current velocity difference is within the tolerance band specified by the threshold value.

Furthermore, this threshold value can be used to define the criterion for block change on activation of synchronous mode or on modification of the speed ratio parameters when the coupling is active in cases where "synchronism coarse" is selected as the block change response condition (see channel-specific MD21320 \$MC\_COUPLE\_BLOCK\_CHANGE\_CTRL\_1 or language instruction COUPDEF, WAITC, CPBC).

Entering a value of "0" always sets the NC/PLC interface signal DB31, ... DBX98.1 (synchronism coarse) to "1" in VV mode or with cmdvel.

Corresponds with:

Channel-specific MD21320 \$MC\_COUPLE\_BLOCK\_CHANGE\_CTRL\_1

(block change response in synchronous mode)

NC/PLC interface signal DB31, ... DBX98.1 (synchronism coarse)

37230	COUPLE_VELO_TOL_FINE			A05, A10	S3	
mm/min, rev/min	Velocity tolerance 'fine'			DOUBLE	NEW CONF	
-						
-	-	30.0	-	-	7/2	M

**Description:** In synchronous mode, the velocity difference between the leading and following axis(axis)/spindle(s) is monitored (only VV mode or cmdvel in the case of CP programming).

The NC/PLC interface signal DB31, ... DBX98.0 (synchronism fine) is set if the current velocity difference is within the tolerance band specified by the threshold value.

Furthermore, this threshold value can be used to define the criterion for block change on activation of synchronous mode or on modification of the speed ratio parameters when the coupling is active in cases where "synchronism fine" is selected as the block change response condition (see channel-specific MD21320 \$MC\_COUPLE\_BLOCK\_CHANGE\_CTRL\_1 or language instruction COUPDEF, WAITC, CPBC).

Entering a value of "0" always sets the NC/PLC interface signal DB31, ... DBX98.0 (synchronism fine) to "1" in VV mode or with cmdvel.

Corresponds with:

Channel-specific MD21320 \$MC\_COUPLE\_BLOCK\_CHANGE\_CTRL\_1

(block change response in synchronous mode)

NC/PLC interface signal DB31, ... DBX98.0 (synchronism fine)

37240	COUP_SYNC_DELAY_TIME			A05, A10	-	
s	Delay time actual value synchronism			DOUBLE	NEW CONF	
-						
-	2	60, 30	-	-	7/2	M

**Description:** Synchronous spindle coupling: delay time - monitors the time taken to reach actual value synchronism after reaching setpoint synchronism.

\$MA\_COUP\_SYNC\_DELAY\_TIME[0]: time to reach 'Synchronism fine'

\$MA\_COUP\_SYNC\_DELAY\_TIME[1]: time to reach 'Synchronism coarse'

If the value "0" is entered, the relevant monitoring is inactive

Related to:

MD 37200 \$MA\_COUPLE\_POS\_TOL\_COARSE

MD 37210 \$MA\_COUPLE\_POS\_TOL\_FINE

MD 37220 \$MA\_COUPLE\_VELO\_TOL\_COARSE

MD 37230 \$MA\_COUPLE\_VELO\_TOL\_FINE

37250	MS_ASSIGN_MASTER_SPEED_CMD			A10	TE3	
-	Master axis for speed setpoint coupling			DWORD	PowerOn	
-						
-	-	0	0	31	7/2	M

**Description:** A master/slave speed setpoint linkage is configured by indicating the machine axis number of the master axis belonging to this slave.

Related to:

MD37252 \$MA\_MS\_ASSIGN\_MASTER\_TORQUE\_CTR

37252	MS_ASSIGN_MASTER_TORQUE_CTR			A10	TE3	
-	Master axis number for torque control			DWORD	PowerOn	
-						
-	-	0	0	31	7/2	M

**Description:** Torque distribution between master and slave axes is configured by stating the machine axis number of the master axis belonging to the slave.

Homogenous torque distribution is achieved by using the torque compensatory controller.

In order to do this, the controller has to know the torque actual values of the drives involved (with PROFIdrive, the message frame used must include and transfer these values, e.g. use message frame 116)

With default setting = 0, the same master axis is used for torque control as for speed setpoint coupling MD37250 \$MA\_MS\_ASSIGN\_MASTER\_SPEED\_CMD.

Related to:

MD37250 \$MA\_MS\_ASSIGN\_MASTER\_SPEED\_CMD

MD37254 \$MA\_MS\_TORQUE\_CTRL\_MODE

MD37256 \$MA\_MS\_TORQUE\_CTRL\_P\_GAIN

MD37258 \$MA\_MS\_TORQUE\_CTRL\_I\_TIME

MD37268 \$MA\_MS\_TORQUE\_WEIGHT\_SLAVE

37253	MS_FUNCTION_MASK	A10	TE3
-	Master/slave settings	DWORD	NEW CONF
-			
-	-	0x0	-
-	-	-	-
-	-	0	0
-	-	3	3
-	-	7/2	M

**Description:** Parameterizing a master/slave coupling

Bit 0 = 0:  
The scaling of MD37256 \$MA\_MS\_TORQUE\_CTRL\_P\_GAIN, MD37260 \$MA\_MS\_MAX\_CTRL\_VELO is smaller than described in the documentation by the factor 1s/IPO cycle.

Bit 0 = 1:  
The scaling of MD37256 \$MA\_MS\_TORQUE\_CTRL\_P\_GAIN, MD37260 \$MA\_MS\_MAX\_CTRL\_VELO corresponds to the documentation.

Bit 1 = 0:  
With MASLDEF, the master axis for torque compensation control is the programmed axis

Bit 1 = 1:  
With MASLDEF, the master axis for torque compensation control is the axis configured in MD37252.

37254	MS_TORQUE_CTRL_MODE	A10	TE3
-	Torque compensatory controller interconnection	DWORD	Immediately
-			
-	-	0	0
-	-	3	3
-	-	7/2	M

**Description:** The output of the torque compensatory controller is connected to

0: Master and slave axis  
1: Slave axis  
2: Master axis  
3: No axis

when the torque control is active.

Related to:  
MD37252 \$MA\_MS\_ASSIGN\_MASTER\_TORQUE\_CTR  
MD37250 \$MA\_MS\_ASSIGN\_MASTER\_SPEED\_CMD  
MD37254 \$MA\_MS\_TORQUE\_CTRL\_MODE

37255	MS_TORQUE_CTRL_ACTIVATION	A10	TE3
-	Torque compensatory controller activation	BYTE	NEW CONF
-			
-	-	0	0
-	-	1	1
-	-	7/2	M

**Description:** The torque compensatory controller can be switched ON and OFF by means of MD37254 \$MA\_MS\_TORQUE\_CTRL\_MODE or via the NC/PLC interface signal DB31, ... DBX24.4 (torque compensatory controller on).

In order to do this, the controller has to know the torque actual values of the drives involved (with PROFIdrive, the message frame used must include and transfer these values, e.g. use message frame 116).

In the case of the PLC, MD37254 \$MA\_MS\_TORQUE\_CTRL\_MODE is only used for configuring the interconnection of the torque compensatory controller.

0: Switch ON/OFF via MD37254  
1: Switch ON/OFF via the NC/PLC interface signal DB31, ... DBX24.4 (torque compensatory controller on)

37256	MS_TORQUE_CTRL_P_GAIN	A10	TE3			
%	Torque compensatory controller gain factor	DOUBLE	NEW CONF			
-						
-	-	0.0	0.0	100.0	7/2	M

**Description:**

Gain factor of the torque compensatory controller

The gain factor is entered in percent as the ratio of the maximum axis velocity of the slave axis on the load side to the rated torque.

The maximum axis velocity is derived from MD32000 \$MA\_MAX\_AX\_VELO, the rated torque from the product of drive machine data MD1725.

Related to:

MD37254 \$MA\_MS\_TORQUE\_CTRL\_MODE

MD37258 \$MA\_MS\_TORQUE\_CTRL\_I\_TIME

MD32000 \$MA\_MAX\_AX\_VELO

37258	MS_TORQUE_CTRL_I_TIME	A10	TE3			
s	Torque compensatory controller integral action time	DOUBLE	NEW CONF			
-						
-	-	0.0	0.0	100.0	7/2	M

**Description:**

Integral time of the torque compensatory controller

The integral time does not become active until the P gain factor is greater than 0.

Related to:

MD37254 \$MA\_MS\_TORQUE\_CTRL\_MODE

MD37256 \$MA\_MS\_TORQUE\_CTRL\_P\_GAIN

MD32000 \$MA\_MAX\_AX\_VELO

37260	MS_MAX_CTRL_VELO	A10	TE3			
%	Torque compensatory controller limit	DOUBLE	NEW CONF			
-						
-	-	100.0	0.0	100.0	7/2	M

**Description:**

Torque compensatory controller limitation

The speed setpoint value calculated by the torque compensatory controller is limited.

The limit that can be entered as a percentage refers to MD32000 \$MA\_MAX\_AX\_VELO of the slave axis.

Related to:

MD37254 \$MA\_MS\_TORQUE\_CTRL\_MODE

MD37256 \$MA\_MS\_TORQUE\_CTRL\_P\_GAIN

MD37258 \$MA\_MS\_TORQUE\_CTRL\_I\_TIME

MD32000 \$MA\_MAX\_AX\_VELO

37262	MS_COUPLING_ALWAYS_ACTIVE	A10	TE3			
-	Permanent master/slave link	BYTE	NEW CONF			
-						
-	-	0	0	1	7/2	M

**Description:**

Activation behavior of a master/slave coupling

0: Temporary coupling

The coupling is activated/deactivated via PLC interface signals and language commands.

1: Permanent coupling  
 This machine data activates the permanent coupling.  
 PLC interface signals and language commands do not have any effect.  
 Related to:  
 MD37252 \$MA\_MS\_ASSIGN\_MASTER\_TORQUE\_CTR  
 MD37250 \$MA\_MS\_ASSIGN\_MASTER\_SPEED\_CMD

37263	MS_SPIND_COUPLING_MODE	A10	TE3
-	Link response of a spindle	BYTE	NEW CONF
-			
-	-	0	0
-	-	1	7/2
-	-		M

**Description:** Link behavior of a speed-controlled spindle:  
 0: Link is closed/released in standstill only.  
 1: Link is closed/released already during motion.  
 The configuration is valid both for activation/deactivation via DB3x.DBX24.5 and for MASLON, MASLOF, MASLOFs, MASLDEL

37264	MS_TENSION_TORQUE	A10	TE3
%	Master-slave tension torque	DOUBLE	Immediately
-			
-	-	0.0	-100.0
-	-	100.0	7/2
-	-		M

**Description:** A constant tension torque between the master and the slave axis can be entered as a percentage of the rated drive torque of the slave axis.  
 Use of a tension torque requires an active torque compensatory controller (compare MD37255 \$MA\_MS\_TORQUE\_CTRL\_ACTIVATION).  
 Related to:  
 MD37252 \$MA\_MS\_ASSIGN\_MASTER\_TORQUE\_CTR  
 MD37266 \$MA\_MS\_TENSION\_TORQ\_FILTER\_TIME  
 MD37255 \$MA\_MS\_TORQUE\_CTRL\_ACTIVATION

37266	MS_TENSION_TORQ_FILTER_TIME	A10	TE3
s	Filter time constant tension torque	DOUBLE	NEW CONF
-			
-	-	0.0	0.0
-	-	100.0	7/2
-	-		M

**Description:** The tension torque between the master and slave axes can be activated via a PT1 filter. Any change of MD37264 \$MA\_MS\_TENSION\_TORQUE is then travelled out with the time constant of the filter.  
 As default, the filter is inactive; any torque change becomes active unfiltered.  
 Related to:  
 MD37264 \$MA\_MS\_TENSION\_TORQUE

37268	MS_TORQUE_WEIGHT_SLAVE	A10	TE3
%	Torque weighting of slave axis	DOUBLE	NEW CONF
-			
-	-	50.0	1.0
-	-	100.0	7/2
-	-		M

**Description:** The torque share that the slave axis contributes to the total torque can be configured via the weighting. This enables different torque shares to be implemented between the master and slave axes.

1.3 NC machine data

In the case of motors with the same rated torque, a 50% to 50% torque sharing is suggested.

The torque share of the master axis results implicitly from 100% - MD37268.

Related to:

MD37252 \$MA\_MS\_ASSIGN\_MASTER\_TORQUE\_CTR

MD37266 \$MA\_MS\_TENSION\_TORQ\_FILTER\_TIME

37270	MS_VELO_TOL_COARSE	A10	TE3,Z3
%	Master/slave speed tolerance coarse	DOUBLE	NEW CONF
-			
-	-	5.0	-
			7/2 M

**Description:** Tolerance window, coarse, for the differential speed between the master and the slave.

If the speed difference is within the tolerance window, the NC/PLC interface signal DB31, ... DBX96.4 (Master-Slave compensatory controller active) is set.

The tolerance value is entered as a percentage of MD32000 \$MA\_MAX\_AX\_VELO.

37272	MS_VELO_TOL_FINE	A10	TE3,Z3
%	Master/slave speed tolerance fine	DOUBLE	NEW CONF
-			
-	-	1.0	-
			7/2 M

**Description:** Tolerance window, fine, for the differential speed between the master and the slave.

If the speed difference is within the tolerance window, the NC/PLC interface signal DB31, ... DBX96.3 (Master/Slave coarse) is set.

The tolerance value is entered as a percentage of MD32000 \$MA\_MAX\_AX\_VELO.

37274	MS_MOTION_DIR_REVERSE	A10	-
-	Inverting traversing direction slave axis	BYTE	NEW CONF
-			
-	-	0	0
			1 7/2 M

**Description:** Inverting the traversing direction of a slave axis in the linked status.

0: Equidirectional to the master axis

1: Inverse to the master axis

37400	EPS_TLIFT_TANG_STEP	A10	T3
mm, degrees	Tangent angle for corner recognition	DOUBLE	Reset
CTEQ			
-	-	5.0	-
			7/2 M

**Description:** If TLIFT has been programmed and the axis is tracked tangentially, a step of the position setpoint larger than MD37400 \$MA\_EPS\_TLIFT\_TANG\_STEP causes an intermediate block to be inserted. The intermediate block traverses the axis to the position corresponding to the start tangent in the next block.

MD irrelevant if: TLIFT not activated

Related to:

TLIFT instruction

37402	TANG_OFFSET	A10	T3
mm, degrees	Default angle for tangential correction	DOUBLE	Reset
CTEQ			
-	-	0.0	-
-	-	-	7/2
-	-	-	M

**Description:** Default offset (angle), which the tracked axis forms with the tangent. The angle acts in addition to the angle programmed in the TANGON block.  
MD irrelevant if tangential tracking not active.  
Related to:  
TANGON instruction

37500	ESR_REACTION	EXP, A01, A10,	M3, P2
-	Axial mode of "Extended Stop and Retract"	BYTE	NEW CONF
CTEQ			
-	-	0	0
-	-	22	7/2
-	-	-	M

**Description:** Selection of the response to be triggered via system variable "\$AN\_ESR\_TRIGGER".  
0 = No response Reaktion (or only external response through synchronized action programming of rapid digital outputs).  
21 = NC-controlled retraction axis  
22 = NC-controlled stopping axis

37510	AX_ESR_DELAY_TIME1	EXP, A01, A10,	P2
s	Delay time ESR single axis	DOUBLE	NEW CONF
CTEQ			
-	-	0.0	-
-	-	-	7/2
-	-	-	M

**Description:** If, for example, an alarm occurs, the deceleration time can be delayed by means of this MD, e.g. to allow in case of gear hobbing the retraction from the tooth gap first.

37511	AX_ESR_DELAY_TIME2	EXP, A01, A10,	P2
s	ESR time for interpolatory deceleration of single axis	DOUBLE	NEW CONF
CTEQ			
-	-	0.0	-
-	-	-	7/2
-	-	-	M

**Description:** The time for interpolatory braking specified here in MD37511 \$MA\_AX\_ESR\_DELAY\_TIME2 still remains after expiry of the time MD37510 \$MA\_AX\_ESR\_DELAY\_TIME1.  
Rapid braking with subsequent tracking is initiated after expiry of the time MD37511 \$MA\_AX\_ESR\_DELAY\_TIME2.

37550	EG_VEL_WARNING	A05, A10	M3, Z3
%	Threshold value for velocity warning threshold.	DOUBLE	NEW CONF
-			
-	-	90.0	0
-	-	100	7/2
-	-	-	M

**Description:** Threshold value for VDI signals  
If, with active EG axis link, the maximum velocities stored in MD 32000: \$MA\_MAX\_AX\_VELO have been reached for the current velocity of the axis by the percentage set here, a warning (signal) for velocity is output.

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Related to:  
MD32000 \$MA\_MAX\_AX\_VELO

37560	EG_ACC_TOL			A05, A10	M3,Z3	
%	Threshold value for 'Axis accelerating'			DOUBLE	NEW CONF	
-						
-	-	25.0	-	-	7/2	M

**Description:** Threshold value for VDI signal "Axis accelerates"  
 If, with active EU axis link, the maximum accelerations stored in MD 32300: \$MA\_MAX\_AX\_ACCEL have been reached for the current acceleration of the axis by the percentage set here, a warning (signal) for acceleration is output.  
 Korrespondiert mit:  
 MD32300 \$MA\_MAX\_AX\_ACCEL

37600	PROFIBUS_ACTVAL_LEAD_TIME			EXP, A01, A02	-	
s	Actual value acquisition time (PROFIBUS/PROFINET Ti)			DOUBLE	PowerOn	
-						
-	-	0.000125	0.0	0.032	0/0	M

**Description:** For PROFIBUS/PROFINET only:  
 Machine data for setting the actual value acceptance time (Ti) of the encoder on the PROFIBUS/PROFINET.  
 Unit: seconds; therefore default is 125µs  
 (this is also the default which STEP 7 sets for a 611U).  
 NOTICE:  
 The actual Ti value is read directly from the SDB configuration or the drive, if possible.  
 In this case, the machine data value is set to the read value and will only serve for display purposes.

37602	PROFIBUS_OUTVAL_DELAY_TIME			EXP, A01, A02	-	
s	Setpoint delay time (PROFIBUS/PROFINET To)			DOUBLE	PowerOn	
-						
-	-	0.003	0.0	0.032	0/0	M

**Description:** For PROFIBUS/PROFINET only:  
 Machine data for setting the setpoint acceptance time (To) on the PROFIBUS/PROFINET.  
 Unit: seconds  
 NOTICE:  
 The actual To value is read directly from the SDB configuration or the drive, if possible.  
 In this case, the value of the machine data is set to the read value and serves for display purposes only.

37610	PROFIBUS_CTRL_CONFIG			EXP, A01	-	
-	PROFIdrive control bit configuration			BYTE	PowerOn	
-						
-	-	0	0	2	7/2	M

**Description:** For PROFIdrive only:  
 Machine data for setting special PROFIdrive control word functionality:



0 =  
default = no change of standard behavior

1 =  
STW2, bits 0-1 are set depending on mode of operation/rapid traverse suppressing the setting of defaults for the VDI control bits "Parameter set bit0/1" from the PLC.  
Bits 0-1 get the following combinations depending on the mode of operation, and controlled by NCK:  
00 = Default (after Power-On)  
01 = JOG (except for JOG-INC) or ((AUTOMATIC or MDI) and G0)  
10 = ((AUTOMATIC or MDI) and not G0), other  
11 = JOG-INC

2 =  
Combination of MD=0 (preset by VDI) and MD=1 (internally preset):  
MD=2 acts as MD=1, as long as there are no VDI control bits from the PLC, i.e. if the VDI control bits "Parameter set bit0/1" are both reset (0).  
MD=2 acts as MD=0, if the VDI control bits "Parameter set bit0/1" are set both or individually (!=0). In this case, the VDI control bits are transferred directly to the drive (priority of VDI signals higher than that of internally created signals).

37620	PROFIBUS_TORQUE_RED_RESOL	EXP, A01	-			
%	Resolution PROFIdrive torque reduction	DOUBLE	NEW CONF			
-						
-	-	1.0	0.005	10.0	7/2	M

**Description:**

For PROFIdrive only:

Resolution of torque reduction on the PROFIdrive (LSB significance)

The MD is only relevant for controls with PROFIdrive drives. For these controls, it defines the resolution of the cyclic interface data "Torque reduction value" (only exists for MD13060 \$MN\_DRIVE\_TELEGRAM\_TYPE = 101 ff. or 201 ff.), which is required for the "Travel to fixed stop" functionality.

The 1% default value corresponds to the original significance. The torque limit is transferred on the PROFIdrive with increments of 1%; the value 100 in the corresponding PROFIdrive message frame data cell corresponds to full torque reduction (i.e. without force).

By changing this MD to 0.005%, for example, the value can be entered in increments of 0.005%, i.e. the increments for the torque limit value become finer by a factor of 200.

For limitation to the rated torque, the value 0 is transmitted in this case; complete torque reduction (i.e. without force) characterizes the transmittable value 10000.

To avoid misadaptation, the setting value of the MD must be selected to match the interpretation configured on the drive side or the firmly defined interpretation of the torque reduction value. If the setting of the control on the drive (manufacturer-specific drive parameter) is known (i.e. with SIEMENS drives), the software automatically sets the MD; in other words, in this case the MD is merely used for display purposes.

1.3 NC machine data

37800	OEM_AXIS_INFO	A01, A11	-
-	OEM version information	STRING	PowerOn
-			
-	2	,	- - 7/2 M

**Description:** A version information freely available to the user (is indicated in the version screen)

37900	SAFE_CAM_TRACK_OUTPUT	A01, -	FBSI
-	Output assignment cam track 1 to 4	DWORD	PowerOn
-			
-	4	0, 0, 0, 0	- - 7/2 M

**Description:** This data defines the outputs for the cam tracks 1 to 4.  
 Structure see: \$MA\_SAFE\_SVSS\_STATUS\_OUTPUT  
 n = 0, 1, 2, 3 correspond to the assignment for cam track 1 to 4  
 Signal Meaning  
 = 0 Axis is not placed on a cam of the cam track  
 = 1 Axis is placed on a cam of the cam track  
 Special cases:  
 The function "Safe cam track" is enabled via MD 36903 \$MA\_SAFE\_CAM\_ENABLE.

37901	SAFE_CAM_RANGE_OUTPUT_1	A01, -	FBSI
-	Output assignment cam range for cam track 1	DWORD	PowerOn
-			
-	4	0, 0, 0, 0	- - 7/2 M

**Description:** This data defines the outputs for the cam range of cam track 1.  
 Structure see: \$MA\_SAFE\_SVSS\_STATUS\_OUTPUT  
 n = 0, 1, 2, 3 correspond to the 4 bits for the indicated range on cam track 1  
 Bit 3 Bit 2 Bit 1 Bit 0  
 0 0 0 0 Cam range 0 active  
 0 0 0 1 Cam range 1 active  
 to ...  
 1 1 1 1 Cam range 15 active  
 The cam range is defined via the following machine data:  
 MD 36938: \$MA\_SAFE\_CAM\_TRACK\_ASSIGN[n]  
 Signal Meaning  
 = 0...14 Axis is placed within the cam range, to which the range ID 0...14 on cam track 1 was assigned  
 = 15 Axis is placed within the range to the right of the cam with the highest position of cam track 1  
 Special cases:  
 The function "Safe cam track" is enabled via MD 36903 \$MA\_SAFE\_CAM\_ENABLE.

37902	SAFE_CAM_RANGE_OUTPUT_2	A01, -	FBSI
-	Output assignment cam range for cam track 2	DWORD	PowerOn
-			
-	4	0, 0, 0, 0	- - 7/2 M

**Description:** This data defines the outputs for the cam range of cam track 2.  
 Structure see: \$MA\_SAFE\_SVSS\_STATUS\_OUTPUT

n = 0, 1, 2, 3 correspond to the 4 bits for the indicated range on cam track 2

Bit 3	Bit 2	Bit 1	Bit 0	
0	0	0	0	Cam range 0 active
0	0	0	1	Cam range 1 active

to ...

1	1	1	1	Cam range 15 active
---	---	---	---	---------------------

The cam range is defined via the following machine data:

MD 36938: \$MA\_SAFE\_CAM\_TRACK\_ASSIGN[n]

Signal	Meaning
--------	---------

= 0...14 Axis is placed within the cam range, to which the range ID 0...14 on cam track 2 was assigned

= 15 Axis is placed within the range to the right of the cam with the highest position of cam track 2

Special cases:

The function "Safe cam track" is enabled via MD 36903 \$MA\_SAFE\_CAM\_ENABLE.

37903	SAFE_CAM_RANGE_OUTPUT_3	A01,-	FBSI
-	Output assignment cam range for cam track 3	DWORD	PowerOn
-			
-	4	0, 0, 0, 0	-
			7/2 M

**Description:**

This data defines the outputs for the cam range of cam track 3.

Structure see: \$MA\_SAFE\_SVSS\_STATUS\_OUTPUT

n = 0, 1, 2, 3 correspond to the 4 bits for the indicated range on cam track 3

Bit 3	Bit 2	Bit 1	Bit 0	
0	0	0	0	Cam range 0 active
0	0	0	1	Cam range 1 active

to ...

1	1	1	1	Cam range 15 active
---	---	---	---	---------------------

The cam range is defined via the following machine data:

MD 36938: \$MA\_SAFE\_CAM\_TRACK\_ASSIGN[n]

Signal	Meaning
--------	---------

= 0...14 Axis is placed within the cam range, to which the range ID 0...14 on cam track 3 was assigned

= 15 Axis is placed within the range to the right of the cam with the highest position of cam track 3

Special cases:

The function "Safe cam track" is enabled via MD 36903 \$MA\_SAFE\_CAM\_ENABLE.

37904	SAFE_CAM_RANGE_OUTPUT_4	A01,-	FBSI
-	Output assignment cam range for cam track 4	DWORD	PowerOn
-			
-	4	0, 0, 0, 0	-
			7/2 M

**Description:**

This data defines the outputs for the cam range of cam track 4.

Structure see: \$MA\_SAFE\_SVSS\_STATUS\_OUTPUT

n = 0, 1, 2, 3 correspond to the 4 bits for the indicated range on cam track 4

Bit 3	Bit 2	Bit 1	Bit 0	
0	0	0	0	Cam range 0 active
0	0	0	1	Cam range 1 active

to ...

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1 1 1 1 Cam range 15 active  
 The cam range is defined via the following machine data:  
 MD 36938: \$MA\_SAFE\_CAM\_TRACK\_ASSIGN[n]  
 Signal Meaning  
 = 0...14 Axis is placed within the cam range, to which the range ID 0...14 on cam track 4 was assigned  
 = 15 Axis is placed within the range to the right of the cam with the highest position of cam track 4  
 Special cases:  
 The function "Safe cam track" is enabled via MD 36903 \$MA\_SAFE\_CAM\_ENABLE.

37906	SAFE_CAM_RANGE_BIN_OUTPUT_1	A01, -	FBSI
-	Output assignment cam range bit for cam track 1	DWORD	PowerOn
-			
-	15	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0	-
			7/2 M

**Description:** This data defines the outputs for the cam range bits of cam track 1.  
 Structure see: \$MA\_SAFE\_SVSS\_STATUS\_OUTPUT  
 Field index n corresponds to the parameterizable cam range numbers on cam track 1.  
 The cam range number is defined via the following machine data:  
 MD 36938: \$MA\_SAFE\_CAM\_TRACK\_ASSIGN[k]  
 Signal Meaning  
 = 0 Axis is not placed on cam with cam range number n  
 = 1 Axis is placed on cam with cam range number n  
 Example:  
 The signal addressed with field index 5 changes to 1, if the axis is placed on the cam, to which cam range number 5 on cam track 1 was assigned during parameterization.  
 Special cases:

- The function "Safe cam track" is enabled via MD 36903 \$MA\_SAFE\_CAM\_ENABLE.
- If cam range number n on cam track 1 is not parameterized, the signal of field index can never change to 1. In this case the output MD with field index n does not have to be parameterized.

37907	SAFE_CAM_RANGE_BIN_OUTPUT_2	A01, -	FBSI
-	Output assignment cam range bit for cam track 2	DWORD	PowerOn
-			
-	15	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0	-
			7/2 M

**Description:** This data defines the outputs for the cam range bits of cam track 2.  
 Structure see: \$MA\_SAFE\_SVSS\_STATUS\_OUTPUT  
 Field index n corresponds to the parameterizable cam range numbers on cam track 2.  
 The cam range number is defined via the following machine data:  
 MD 36938: \$MA\_SAFE\_CAM\_TRACK\_ASSIGN[k]  
 Signal Meaning  
 = 0 Axis is not placed on cam with cam range number n  
 = 1 Axis is placed on cam with cam range number n

Example:

The signal addressed with field index 5 changes to 1, if the axis is placed on the cam, to which cam range number 5 on cam track 2 was assigned during parameterization.

Special cases:

- The function "Safe cam track" is enabled via MD 36903 \$MA\_SAFE\_CAM\_ENABLE.
- If cam range number n on cam track 2 is not parameterized, the signal of field index n can never change to 1. In this case the output MD with field index n does not have to be parameterized.

37908	SAFE_CAM_RANGE_BIN_OUTPUT_3	A01,-	FBSI
-	Output assignment cam range bit for cam track 3	DWORD	PowerOn
-			
-	15	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0	-
			7/2 M

**Description:** This data defines the outputs for the cam range bits of cam track 3.  
Structure see: \$MA\_SAFE\_SVSS\_STATUS\_OUTPUT  
Field index n corresponds to the parameterizable cam range numbers on cam track 3.

The cam range number is defined via the following machine data:

MD 36938: \$MA\_SAFE\_CAM\_TRACK\_ASSIGN[k]

Signal                      Meaning

= 0 Axis is not placed on cam with cam range number n

= 1 Axis is placed on cam with cam range number n

Example:

The signal addressed with field index 5 changes to 1, if the axis is placed on the cam, to which cam range number 5 on cam track 3 was assigned during parameterization.

Special cases:

- The function "Safe cam track" is enabled via MD 36903 \$MA\_SAFE\_CAM\_ENABLE.
- If cam range number n on cam track 3 is not parameterized, the signal of field index n can never change to 1. In this case the output MD with field index n does not have to be parameterized.

37909	SAFE_CAM_RANGE_BIN_OUTPUT_4	A01,-	FBSI
-	Output assignment cam range bit for cam track 4	DWORD	PowerOn
-			
-	15	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0	-
			7/2 M

**Description:** This data defines the outputs for the cam range bits of cam track 4.  
Structure see: \$MA\_SAFE\_SVSS\_STATUS\_OUTPUT  
Field index n corresponds to the parameterizable cam range numbers on cam track 4.

The cam range number is defined via the following machine data:

MD 36938: \$MA\_SAFE\_CAM\_TRACK\_ASSIGN[k]

Signal                      Meaning

= 0 Axis is not placed on cam with cam range number n

= 1 Axis is placed on cam with cam range number n

1.3 NC machine data

Example:

The signal addressed with field index 5 changes to 1, if the axis is placed on the cam, to which cam range number 5 on cam track 4 was assigned during parameterization.

Special cases:

- The function "Safe cam track" is enabled via MD 36903 \$MA\_SAFE\_CAM\_ENABLE.
- If cam range number n on cam track 4 is not parameterized, the signal of field index n can never change to 1. In this case the output MD with field index n does not have to be parameterized.

38000	MM_ENC_COMP_MAX_POINTS	A01, A09, A02	K3
-	Number of intermediate points for interpol. compensation (SRAM)	DWORD	PowerOn
-			
-	2	0, 0	0
		5000	7/2 M

**Description:**

The number of interpolation points required per measuring system must be defined for the leadscrew error compensation.

The required number can be calculated as follows using the defined parameters:

$$MD38000 \$MA\_MM\_ENC\_COMP\_MAX\_POINTS = \frac{\$AA\_ENC\_COMP\_MAX - \$AA\_ENC\_COMP\_MIN}{\$AA\_ENC\_COMP\_STEP} + 1$$

- \$AA\_ENC\_COMP\_MIN Initial position (system variable)
- \$AA\_ENC\_COMP\_MAX End position (system variable)
- \$AA\_ENC\_COMP\_STEP Distance between interpolation points (system variable)

When selecting the number of interpolation points and/or the distances between them, it is important to take into account the size of the resulting compensation table and the space required in the buffered NC user memory (SRAM). 8 bytes are required for each compensation value (interpolation point).

The index [n] has the following coding: [encoder no.]: 0 or 1

Special cases:

Notice:

After any change in MD38000 \$MA\_MM\_ENC\_COMP\_MAX\_POINTS, the buffered NC user memory is automatically re-allocated on system power-on.

All data in the buffered NC user memory are then lost (e.g. part programs, tool offsets etc.). Alarm 6020 "Machine data changed - memory reallocated" is output.

If reallocation of the NC user memory fails because the total memory capacity available is insufficient, alarm 6000 "Memory allocation made with standard machine data" is output.

In this case, the NC user memory division is allocated using the default values of the standard machine data.

References:

/FB/, S7, "Memory Configuration"

/DA/, "Diagnostics Guide"

Related to:

MD32700 \$MA\_ENC\_COMP\_ENABLE[n] LEC active

References:

/FB/, S7, "Memory Configuration"

38010	MM_QEC_MAX_POINTS	A01, A09	K3
-	Number of values for quadrant error compens. with neural network	DWORD	PowerOn
-			
-	1	0	0
		1040	7/2
			M

**Description:**

In quadrant error compensation with neural networks (QEC), the number of compensation values required has to be entered for each axis that is to be compensated.

The required number can be calculated as follows using the defined parameters: MD38010 \$MA\_MM\_QEC\_MAX\_POINTS \_ (\$AA\_QEC\_COARSE\_STEPS + 1) ^ \$AA\_QEC\_FINE\_STEPS

\$AA\_QEC\_COARSE\_STEPS Coarse quantization of the characteristic (system variable)

\$AA\_QEC\_FINE\_STEPS Fine quantization of the characteristic (system variable)

For "direction-dependent" compensation, the number must be greater than or equal to double the value of this product.

When selecting coarse or fine quantization, the resulting size of the compensation table and its memory requirement in the buffered user memory must be taken into account. 4 bytes are required for each compensation value. If the value 0 is entered, no memory is reserved for the table; i.e. the table does not exist and the function cannot therefore be activated.

Special cases: Caution!

If MD38010 \$MA\_MM\_QEC\_MAX\_POINTS is altered, the buffered NC user memory is automatically re-allocated on system power-on. This deletes all the user data in the buffered user memory (e.g. drive and HMI machine data, code, tool offsets, part programs etc.).

Note:

For better handling, a large number should be chosen initially, because the exact number of interpolation points that are required is not known when the compensation is started for the first time. This number can be reduced to the required size as soon as the characteristics have been recorded and saved.

After performing another power-on, the saved characteristics can be reloaded.

References:

/FB/, S7, "Memory Configuration"

## 1.4 NC setting data

Number	Identifier			Display filters	Reference	
Unit	Name			Data type	Active	
Attributes						
System	Dimension	Default value (LIN/ROT)	Minimum value (LIN/ROT)	Maximum value (LIN/ROT)	Protection	Class

**Description:** Description

41010	JOG_VAR_INCR_SIZE			-	H1	
-	Size of the variable increment for JOG			DOUBLE	Immediately	
-						
-	-	0.	-	-	7/7	M

**Description:** This setting data defines the number of increments when variable increment (INCvar) is selected. This increment size is traversed by the axis in JOG mode each time the traverse key is pressed or the handwheel is turned one detent position and variable increment is selected (PLC interface signal "Active machine function: INC variable" for machine or geometry axes is set to 1). The defined increment size also applies to DRF.

Note:

Please note that the increment size is active for incremental jogging and handwheel jogging. So, if a large increment value is entered and the handwheel is turned, the axis might cover a large distance (depends on setting in MD31090 \$MA\_JOG\_INCR\_WEIGHT).

SD irrelevant to .....

JOG continuous

Related to ....

NC/PLC interface signal DB21-30 DBX41.5, DBX47.5, DBX53.5 (Geometry axis 1-3 active machine function: INC variable) or NC/PLC interface signal DB31, ... DBX65.5 (Active machine function: INC variable)

MD31090 \$MA\_JOG\_INCR\_WEIGHT (weighting of an increment for INC/handwheel)

41050	JOG_CONT_MODE_LEVELTRIGGRD			-	H1	
-	Jog mode / continuous operation with continuous JOG			BOOLEAN	Immediately	
-						
-	-	TRUE	-	-	7/7	M

**Description:** 1: Jog mode for JOG continuous

In jog mode (default setting) the axis traverses as long as the traverse key is held down and an axis limitation has not been reached. When the key is released the axis is decelerated to zero speed and the movement is considered complete.

0: Continuous operation for JOG continuous

In continuous operation the traverse movement is started with the first rising edge of the traverse key and continues to move even after the key is released. The axis can be stopped again by pressing the traverse key again (second rising edge).

SD irrelevant for .....

Incremental jogging (JOG INC)

Reference point approach (JOG REF)



41100	JOG_REV_IS_ACTIVE	-	-			
-	JOG mode: revolutional feedrate / linear feedrate	BYTE	Immediately			
-						
-	-	0x0E	-	-	7/7	M

**Description:**

Bit 0 = 0:

The behavior depends on the following:

- in the case of an axis/spindle:  
on the axial SD43300 \$SA\_ASSIGN\_FEED\_PER\_REV\_SOURCE
- in the case of a geometry axis with an active frame with rotation:  
on the channel-specific SD42600 \$SC\_JOG\_FEED\_PER\_REV\_SOURCE
- in the case of an orientation axis:  
on the channel-specific SD42600 \$SC\_JOG\_FEED\_PER\_REV\_SOURCE

Bit 0 = 1:

A JOG motion with revolutional feedrate shall be traversed depending on the master spindle.

The following must be considered:

- If a spindle is the master spindle itself, it will be traversed without revolutional feedrate.
- If the master spindle is in stop position and if SD43300 \$SA\_ASSIGN\_FEED\_PER\_REV\_SOURCE (with an axis/spindle) or SD42600 \$SC\_JOG\_FEED\_PER\_REV\_SOURCE (with a geometry axis with an active frame with rotation, or with an orientation axis) = -3, traversing will be carried out without revolutional feedrate.

Bit 1 = 0:

The axis/spindle, geometry axis or orientation axis will be traversed with revolutional feedrate even during rapid traverse (see bit 0 for selection).

Bit 1 = 1:

The axis/spindle, geometry axis or orientation axis is always traversed without revolutional feedback during rapid traverse.

Bit 2 = 0:

The axis/spindle, geometry axis or orientation axis is traversed with revolutional feedrate during JOG handwheel travel, too (see bit 0 for selection).

Bit 2 = 1:

The axis/spindle, geometry axis or orientation axis is always traversed without revolutional feedrate during JOG handwheel travel.

Bit 3 = 0:

The axis/spindle is traversed with revolutional feedrate during DRF handwheel travel, too (see bit 0 for selection).

Bit 3 = 1:

The axis/spindle is always traversed without revolutional feedrate during DRF handwheel travel.

41110	JOG_SET_VELO	-	H1			
mm/min	Axis velocity in JOG	DOUBLE	Immediately			
-						
-	-	0.0	-	-	7/7	M

**Description:**

Value not equal to 0:

The velocity value entered applies to linear axes traversed in JOG mode if linear feedrate (G94) is active for the relevant axis (SD41100 \$SN\_JOG\_REV\_IS\_ACTIVE = 0).

1.4 NC setting data

The axis velocity is active for

- continuous jogging
- incremental jogging (INC1, ... INCvar)
- handwheel traversing.

The value entered is valid for all linear axes and must not exceed the maximum permissible axis velocity (MD32000 \$MA\_MAX\_AX\_VELO).

In the case of DRF, the velocity defined by SD41110 \$SN\_JOG\_SET\_VELO is reduced by

MD32090 \$MA\_HANDWH\_VELO\_OVERLAY\_FACTOR.

Value = 0:

If 0 has been entered in the setting data, the active linear feedrate in JOG mode is

MD32020 \$MA\_JOG\_VELO "Jog axis velocity". Each axis can be given its own JOG velocity with this MD (axial MD).

SD irrelevant for .....

- Linear axes if SD41100 \$SN\_JOG\_REV\_IS\_ACTIVE = 1
- Rotary axes (SD41130 \$SN\_JOG\_ROT\_AX\_SET\_VELO is active here)

Application example(s)

The operator can thus define a JOG velocity for a specific application.

Related to ....

SD41100 \$SN\_JOG\_REV\_IS\_ACTIVE (revolutional feedrate with JOG active)

Axial MD32020 \$MA\_JOG\_VELO (JOG axis velocity)

Axial MD32000 \$MA\_MAX\_AX\_VELO (maximum axis velocity)

Axial MD32090 \$MA\_HANDWH\_VELO\_OVERLAY\_FACTOR (ratio of JOG velocity to handwheel velocity (DRF))

SD41130 \$SN\_JOG\_ROT\_AX\_SET\_VELO (JOG speed with rotary axes)

41120	JOG_REV_SET_VELO	-	H1
mm/rev	Revolutional feedrate of axes in JOG mode	DOUBLE	Immediately
-			
-	-	0.0	-
			7/7 M

**Description:**

Value not equal to 0:

The velocity value entered applies to axes traversed in JOG mode if revolutional feedrate (G95) is active for the relevant axis (SD41100 \$SN\_JOG\_REV\_IS\_ACTIVE = 1). The axis velocity is active for

- continuous jogging
- incremental jogging (INC1, ... INCvar)
- handwheel traversing. The value entered is valid for all axes and must not exceed the maximum permissible axis velocity (MD32000 \$MA\_MAX\_AX\_VELO).

Value = 0:

If 0 has been entered in the setting data, the active revolutional feedrate in JOG mode is MD32050 \$MA\_JOG\_REV\_VELO "revolutional feedrate with JOG".

Each axis can be given its own revolutional feedrate with this MD (axial MD).

SD irrelevant for .....

- For axes if SD41100 \$SN\_JOG\_REV\_IS\_ACTIVE = 0

Application example(s)

The operator can define a JOG velocity for a particular application.

Related to ....

Axial SD41100 \$SN\_JOG\_REV\_IS\_ACTIVE (revolutional feedrate for JOG active)

Axial MD32050 \$MA\_JOG\_REV\_VELO (revolutional feedrate with JOG)

Axial MD32000 \$MA\_MAX\_AX\_VELO (maximum axis velocity)

41130	JOG_ROT_AX_SET_VELO	-	H1
rev/min	Axis velocity for rotary axes in JOG mode	DOUBLE	Immediately
-			
-	0.0	-	7/7 M

**Description:**

Value not equal to 0:

The velocity entered applies to rotary axes in JOG mode (to continuous jogging, incremental jogging, jogging with handwheel). The value entered is common to all rotary axes, and must not exceed the maximum permissible axis velocity (MD32000 \$MA\_MAX\_AX\_VELO).

With DRF, the velocity set with SD41130 \$SN\_JOG\_ROT\_AX\_SET\_VELO must be reduced by MD32090 \$MA\_HANDWH\_VELO\_OVERLAY\_FACTOR.

Value equal to 0:

If the value 0 is entered in the setting data, the velocity applied to rotary axes in JOG mode is the axial MD32020 \$MA\_JOG\_VELO (jog axis velocity). In this way, it is possible to define a separate JOG velocity for each axis.

Application example(s)

The operator can define a JOG velocity for a particular application.

Related to ....

MD32020 \$MA\_JOG\_VELO (JOG axis velocity)

MD32000 \$MA\_MAX\_AX\_VELO (maximum axis velocity)

MD32090 \$MA\_HANDWH\_VELO\_OVERLAY\_FACTOR (ratio JOG velocity to handwheel velocity (DRF))

41200	JOG_SPIND_SET_VELO	-	H1
rev/min	Speed for spindle JOG mode	DOUBLE	Immediately
-			
-	0.0	-	7/7 M

**Description:**

Value not equal to 0:

The speed entered applies to spindles in JOG mode if they are traversed manually by the "Plus and minus traversing keys" or the handwheel. The speed is active for

- continuous jogging
- incremental jogging (INC1, ... INCvar)
- handwheel traversing. The value entered is valid for all spindles, and must not exceed the maximum permissible speed (MD32000 \$MA\_MAX\_AX\_VELO).

Value = 0:

If 0 has been entered in the setting data, MD32020 \$MA\_JOG\_VELO (JOG axis velocity) acts as the JOG velocity. Each axis can thus be given its own JOG velocity with this MD (axial MD).

The maximum speeds of the active gear stage (MD35130

\$MA\_GEAR\_STEP\_MAX\_VELO\_LIMIT) are taken into account when traversing the spindle with JOG.

SD irrelevant for .....

Application example(s). The operator can thus define a JOG speed for the spindles for a specific application.

Related to ....

Axial MD32020 \$MA\_JOG\_VELO (JOG axis velocity)

MD35130 \$MA\_GEAR\_STEP\_MAX\_VELO\_LIMIT (maximum speeds of the gear stages)

41300	CEC_TABLE_ENABLE			-	K3	
-	Compensation table enable			BOOLEAN	Immediately	
-						
-	62	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/7	M

**Description:** 1: The evaluation of the compensation table [t] is enabled.  
The compensation table is now included in the calculation of the compensation value for the compensation axis.  
The compensation axis \$AN\_CEC\_OUTPUT\_AXIS can be taken from the table configuration.  
The effective total compensation value in the compensation axis can be adapted to the current machining by the targeted activation of tables (from NC part programm or PLC user program).  
The function does not become active until the following conditions have been fulfilled:

- The option "Interpolatory compensation" is set
- The associated compensation tables in the NC user memory have been loaded and enabled (SD41300 \$SN\_CEC\_TABLE\_ENABLE[t] = 1)
- The current position measuring system is referenced (NC/PLC interface signal DB31, ... DBX60.4 / 60.5 (Referenced/synchronized 1 or 2) = 1).

0: The evaluation of the sag compensation table [t] is not enabled.  
Related to ....  
MD18342 \$MN\_MM\_CEC\_MAX\_POINTS[t]      Number of interpolation points with sag compensation  
SD41300 \$SN\_CEC\_TABLE\_ENABLE[t]      Evaluation of the sag compensation table t is enabled  
NC/PLC interface signal DB31, ... DBX60.4 (Referenced/synchronized 1)  
NC/PLC interface signal DB31, ... DBX60.5 (Referenced/synchronized 2)

41310	CEC_TABLE_WEIGHT			-	K3	
-	Weighting factor compensation table			DOUBLE	Immediately	
-						
-	62	1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0...	-	-	7/7	M

**Description:** The compensation value stored in the table [t] is multiplied by the weighting factor.  
When selecting the weighting factor it should be ensured that the total compensation value in the compensation axis does not exceed the maximal value of (MD18342 \$MN\_CEC\_MAX\_SUM). With [t] = index of the compensation table (see MD18342 \$MN\_MM\_CEC\_MAX\_POINTS)  
If, for example, the weight of the tools used on the machine or the workpieces to be machined are too different and this affects the error curve by changing the amplitude, this can be corrected by changing the weighting factor. In the case of sag compensation, the weighting factor in the table can be changed for specific tools or workpieces from the PLC user program or the NC program by overwriting the setting data. However, different compensation tables are to be used if the course of the error curve is substantially changed by the different weights.

Related to ....

SD41300 \$SN\_CEC\_TABLE\_ENABLE[t] Evaluation of the sag compensation table t is enabled

MD18342 \$MN\_CEC\_MAX\_SUM Maximum compensation value for sag compensation

41500	SW_CAM_MINUS_POS_TAB_1			-	N3	
mm/inch, degrees	Trigger points at falling cam 1-8			DOUBLE	Immediately	
-						
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	-	7/7	M

**Description:** The cam positions of minus cams 1 - 8 are entered in this machine data. The positions are entered in the machine coordinate system. Index [n] of the setting data addresses the cam pair: n = 0, 1, ... , 7 corresponds to cam pair 1, 2, ... , 8. When the set switching points are overtraveled in the positive axis direction, the associated "minus" cam signals in the PLC interface ( and any applied fast output signals ) switch from 1 to 0.

41501	SW_CAM_PLUS_POS_TAB_1			-	N3	
mm/inch, degrees	Trigger points at rising cam edge 1-8			DOUBLE	Immediately	
-						
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	-	7/7	M

**Description:** The cam positions of plus cams 1 - 8 are entered in this machine data. The positions are entered in the machine coordinate system. Index [n] of the setting data addresses the cam pair: n = 0, 1, ... , 7 corresponds to cam pair 1, 2, ... , 8. When the set switching points are overtraveled in the positive axis direction, the associated "plus" cam signals in the PLC interface ( and any applied fast output signals ) switch from 0 to 1.

41502	SW_CAM_MINUS_POS_TAB_2			-	N3	
mm/inch, degrees	Trigger points at falling cam edge 9-16			DOUBLE	Immediately	
-						
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	-	7/7	M

**Description:** The cam positions of minus cams 9-16 are entered in this machine data. The positions are entered in the machine coordinate system. Index [n] of the setting data addresses the cam pair: n = 8, 9, ... , 15 corresponds to cam pair 9, 10, ... , 16. Switching points with falling edges of cams 9 - 16. When the set switching points are overtraveled in the positive axis direction, the associated "minus" cam signals in the PLC interface ( and any applied fast output signals ) switch from 1 to 0.

## 1.4 NC setting data

41503	SW_CAM_PLUS_POS_TAB_2			-	N3	
mm/inch, degrees	Trigger points at rising cam edge 9-16			DOUBLE	Immediately	
-						
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	-	7/7	M

**Description:** The cam positions of plus cams 9-16 are entered in this machine data. The positions are entered in the machine coordinate system. Index [n] of the setting data addresses the cam pair:  
n = 8, 9, ... , 15 corresponds to cam pair 9, 10, ... , 16  
Switching points with rising edges of cams 9 - 16.  
When the set switching points are overtraveled in the positive axis direction, the associated "plus" cam signals in the PLC interface ( and any applied fast output signals ) switch from 0 to 1.

41504	SW_CAM_MINUS_POS_TAB_3			-	N3	
mm/inch, degrees	Trigger points at falling cam edge 17-24			DOUBLE	Immediately	
-						
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	-	7/7	M

**Description:** The cam positions of minus cams 17 - 24 are entered in this machine data. The positions are entered in the machine coordinate system. Index [n] of the setting data addresses the cam pair:  
n = 0, 1, ... , 7 corresponds to cam pair 17, 18, ... , 24  
Switching points with falling edges of cams 17 - 24.  
When the set switching points are overtraveled in the positive axis direction, the associated "minus" cam signals in the PLC interface ( and any applied fast output signals ) switch from 1 to 0.

41505	SW_CAM_PLUS_POS_TAB_3			-	N3	
mm/inch, degrees	Trigger points at rising cam edge 17-24			DOUBLE	Immediately	
-						
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	-	7/7	M

**Description:** The cam positions of plus cams 17 - 24 are entered in this machine data. The positions are entered in the machine coordinate system. Index [n] of the setting data addresses the cam pair:  
n = 0, 1, ... , 7 corresponds to cam pair 17, 18, ... , 24  
Switching points with rising edges of cams 17 - 24  
When the set switching points are overtraveled in the positive axis direction, the associated "plus" cam signals in the PLC interface ( and any applied fast output signals ) switch from 0 to 1.

41506	SW_CAM_MINUS_POS_TAB_4			-	N3	
mm/inch, degrees	Trigger points at falling cam edge 25-32			DOUBLE	Immediately	
-						
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	-	7/7	M

**Description:** The cam positions of minus cams 25 - 32 are entered in this machine data. The positions are entered in the machine coordinate system.  
Index [n] of the setting data addresses the cam pair:  
n = 8, 9, ... , 15 corresponds to cam pair 25, 26, ... , 32  
Switching points with falling edges of cams 25 - 32.  
When the set switching points are overtraveled in the positive axis direction, the associated "minus" cam signals in the PLC interface ( and any applied fast output signals ) switch from 1 to 0.

41507	SW_CAM_PLUS_POS_TAB_4			-	N3	
mm/inch, degrees	Trigger points at rising cam edge 25-32			DOUBLE	Immediately	
-						
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	-	7/7	M

**Description:** The cam positions of plus cams 25 - 32 are entered in this machine data. The positions are entered in the machine coordinate system.  
Index [n] of the setting data addresses the cam pair:  
n = 8, 9, ... , 15 corresponds to cam pair 25, 26, ... , 32  
Switching points with rising edges of cams 25 - 32.  
When the set switching points are overtraveled in the positive axis direction, the associated "plus" cam signals in the PLC interface ( and any applied fast output signals ) switch from 0 to 1.

41520	SW_CAM_MINUS_TIME_TAB_1			-	N3	
s	Rate time for '-' trigger points of cams 1-8			DOUBLE	Immediately	
-						
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	-	7/7	M

**Description:** A lead or delay time can be assigned to each cam 1-8 in this setting data to compensate for delay times.  
The switching edge of the associated cam signal is advanced or delayed by the time value entered.  
Positive value:                   Lead time  
Negative value:                   Delay time  
Index [n] of the setting data addresses the cam pair:  
n = 0, 1, ... , 7 corresponds to cam pair 1, 2, ... , 8  
This setting data is added to MD: MD10460 \$MN\_SW\_CAM\_MINUS\_LEAD\_TIME[n].  
Related to ....  
MD10460 \$MN\_SW\_CAM\_MINUS\_LEAD\_TIME[n] (lead or delay time on minus cams 1 - 16)

## 1.4 NC setting data

41521	SW_CAM_PLUS_TIME_TAB_1			-	N3	
s	Rate time for '+' trigger points of cams 1-8			DOUBLE	Immediately	
-						
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	-	7/7	M

**Description:** A lead or delay time can be assigned to each plus cam 1-8 in this setting data to compensate for delay times.  
The switching edge of the associated cam signal is advanced or delayed by the time value entered.  
Positive value: Lead time  
Negative value: Delay time  
Index [n] of the setting data addresses the cam pair:  
n = 0, 1, ... , 7 corresponds to cam pair 1, 2, ... , 8  
This setting data is added to MD10461 \$MN\_SW\_CAM\_PLUS\_LEAD\_TIME[n].  
Related to ....  
MD10461 \$MN\_SW\_CAM\_PLUS\_LEAD\_TIME[n] (lead or delay time on plus cams 1 - 16)

41522	SW_CAM_MINUS_TIME_TAB_2			-	N3	
s	Rate time for '-' trigger points of cams 9-16			DOUBLE	Immediately	
-						
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	-	7/7	M

**Description:** A lead or delay time can be assigned to each minus cam 9 - 16 in this setting data to compensate for delay times.  
The switching edge of the associated cam signal is advanced or delayed by the time value entered.  
Positive value: Lead time  
Negative value: Delay time  
Index [n] of the setting data addresses the cam pair:  
n = 8, 9, ... , 15 corresponds to cam pair 9, 10, ... , 16  
This setting data is added to MD10460 \$MN\_SW\_CAM\_MINUS\_LEAD\_TIME[n+8].  
Related to ....  
MD10460 \$MN\_SW\_CAM\_MINUS\_LEAD\_TIME[n] (lead or delay time on minus cams 1 - 16)

41523	SW_CAM_PLUS_TIME_TAB_2			-	N3	
s	Rate time for '+' trigger points of cams 9-16			DOUBLE	Immediately	
-						
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	-	7/7	M

**Description:** A lead or delay time can be assigned to each plus cam 9 - 16 in this setting data to compensate for delay times.  
The switching edge of the associated cam signal is advanced or delayed by the time value entered.  
Positive value: Lead time  
Negative value: Delay time  
Index [n] of the setting data addresses the cam pair:  
n = 8, 9, ... , 15 corresponds to cam pair 9, 10, ... , 16  
This setting data is added to MD10461 \$MN\_SW\_CAM\_PLUS\_LEAD\_TIME[n+8].



Related to ....

MD10461 \$MN\_SW\_CAM\_PLUS\_LEAD\_TIME[n] (lead or delay time on plus cams 1 - 16)

41524	SW_CAM_MINUS_TIME_TAB_3	-	N3
s	Rate time for '-' trigger points of cams 17-24	DOUBLE	Immediately
-			
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	- - 7/7 M

**Description:** A lead or delay time can be assigned to each minus cam 17-24 in this setting data to compensate for delay times.

The switching edge of the associated cam signal is advanced or delayed by the time value entered.

Positive value: Lead time

Negative value: Delay time

Index [n] of the setting data addresses the cam pair:

n = 0, 1, ... , 7 corresponds to cam pair 17, 18, ... , 24

This setting data is added to MD10460 \$MN\_SW\_CAM\_MINUS\_LEAD\_TIME[n].

Related to ....

MD10460 \$MN\_SW\_CAM\_MINUS\_LEAD\_TIME[n] (lead or delay time on minus cams 1 - 16)

41525	SW_CAM_PLUS_TIME_TAB_3	-	N3
s	Rate time for '+' trigger points of cams 17-24	DOUBLE	Immediately
-			
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	- - 7/7 M

**Description:** A lead or delay time can be assigned to each plus cam 17-24 in this setting data to compensate for delay times.

The switching edge of the associated cam signal is advanced or delayed by the time value entered.

Positive value: Lead time

Negative value: Delay time

Index [n] of the setting data addresses the cam pair:

n = 0, 1, ... , 7 corresponds to cam pair 17, 18, ... , 24

This setting data is added to MD10461 \$MN\_SW\_CAM\_PLUS\_LEAD\_TIME[n].

Related to ....

MD10461 \$MN\_SW\_CAM\_PLUS\_LEAD\_TIME (lead or delay time on plus cams 1 - 16)

41526	SW_CAM_MINUS_TIME_TAB_4	-	N3
s	Rate time for '-' trigger points of cams 25-32	DOUBLE	Immediately
-			
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	- - 7/7 M

**Description:** A lead or delay time can be assigned to each minus cam 25-32 in this setting data to compensate for delay times.

The switching edge of the associated cam signal is advanced or delayed by the time value entered.

Positive value: Lead time

Negative value: Delay time

Index [n] of the setting data addresses the cam pair:

n = 8, 9, ... , 15 corresponds to cam pair 25, 26, ... , 32

## 1.4 NC setting data

This setting data is added to MD10460 \$MN\_SW\_CAM\_MINUS\_LEAD\_TIME[n+8].  
 Related to ....  
 MD10460 \$MN\_SW\_CAM\_MINUS\_LEAD\_TIME[n] (lead or delay time on minus cams 1 - 16)

41527	SW_CAM_PLUS_TIME_TAB_4			-	N3	
s	Rate time for '+' trigger points of cams 25-32			DOUBLE	Immediately	
-						
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	-	7/7	M

**Description:** A lead or delay time can be assigned to each plus cam 25 - 32 in this setting data to compensate for delay times.  
 The switching edge of the associated cam signal is advanced or delayed by the time value entered.  
 Positive value:           Lead time  
 Negative value:          Delay time  
 Index [n] of the setting data addresses the cam pair:  
 n = 8, 9, ... , 15 corresponds to cam pair 25, 26, ... , 32  
 This setting data is added to MD10461 \$MN\_SW\_CAM\_PLUS\_LEAD\_TIME[n+8].  
 Related to ....  
 MD10461 \$MN\_SW\_CAM\_PLUS\_LEAD\_TIME[n] (lead or delay time on plus cams 1 - 16)

41600	COMPAR_THRESHOLD_1			-	A4	
-	Threshold value of the 1st comparator			DOUBLE	Immediately	
-						
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	-	7/7	M

**Description:** COMPAR\_THRESHOLD\_1[b] defines the threshold values for the individual input bits [b] of comparator byte 1.  
 The output bit n of the 1st comparator is created by comparing the threshold value n according to the comparison type defined in bit n of COMPAR\_TYPE\_1.  
 For example:  
 COMPAR\_ASSIGN\_ANA\_INPUT\_1[2] = 4  
 COMPAR\_THRESHOLD\_1[2]           = 5000.0  
 COMPAR\_TYPE\_1                    = 5  
 The 3rd output bit of comparator 1 is set if the input value at AnalogIn 4 is greater than or equal to 5 volts.  
 Index [b]: Bits 0 - 7  
 Related to ....  
 MD10530 \$MN\_COMPAR\_ASSIGN\_ANA\_INPUT\_1  
 MD10531 \$MN\_COMPAR\_ASSIGN\_ANA\_INPUT\_2  
 MD10540 \$MN\_COMPAR\_TYPE\_1  
 MD10541 \$MN\_COMPAR\_TYPE\_2

41601	COMPAR_THRESHOLD_2			-	A4	
-	Threshold value of the 2nd comparator			DOUBLE	Immediately	
-						
-	8	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	-	7/7	M

**Description:** COMPAR\_THRESHOLD\_1[b] defines the threshold values for the individual input bits [b] of comparator byte 1.

Output bit n of the 1st comparator is created by comparing the threshold value n according to the comparison type defined in bit n of COMPAR\_TYPE\_2.

Index [b]: Bits 0 - 7

Related to ...

MD10530 \$MN\_COMPAR\_ASSIGN\_ANA\_INPUT\_1

MD10531 \$MN\_COMPAR\_ASSIGN\_ANA\_INPUT\_2

MD10540 \$MN\_COMPAR\_TYPE\_1

MD10541 \$MN\_COMPAR\_TYPE\_2

41700	AXCT_SWWIDTH	-	B3
-	Default rotation of axis container	DWORD	NEW CONF
CTDE			
-	16	0, 0, 0, 0, 0, 0, 0, 0...	-32
		32	7/7
			M

**Description:** The number of entries (slots) by which the entries in the axis container are advanced on execution of the rotation. The value is interpreted modulo of the actually existing entries. Negative values reverse the direction of rotation. Related to the container rotation command, container axes.

This machine data is distributed via the NCU-link.

Contrary to the the definition for setting data, this SD is not immediately active, but first with NEWCONF.

42000	THREAD_START_ANGLE	-	K1
degrees	Starting angle for thread	DOUBLE	Immediately
-			
-	-	0., 0., 0., 0., 0., 0., 0., 0., 0...	-
		0...	-
			7/7
			M

**Description:** In the case of multiple thread cutting, the offset of the individual threads can be programmed with the aid of this setting data.

This SD can be changed by the part program with the command SF.

Note:

MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB can be set so that the value written by the part program is transferred to the active file system on reset (that is the value is retained after reset.)

42010	THREAD_RAMP_DISP	-	V1
mm	Acceleration behavior of axis when thread cutting	DOUBLE	Immediately
-			
-	2	-1., -1., -1., -1., -1., -1.	-1.
		1., -1., -1....	999999.
			7/7
			M

**Description:** The SD is active for thread cutting with G33 (G34, G35).

It features two elements that define the behavior of the thread axis during runup (1st element) and during deceleration/smoothing (2nd element).

The values have the same properties for thread run-in and thread run-out:

<0:

The thread axis is started/decelerated with configured acceleration. Jerk is according to the current programming of BRISK/SOFT. Behavior is compatible with MD 20650\_\_THREAD\_START\_IS\_HARD = FALSE used until now.

0:

Starting/deceleration of the feed axis during thread cutting is stepped. Behavior is compatible with MD 20650\_\_THREAD\_START\_IS\_HARD = TRUE used until now.

1.4 NC setting data

>0:

The maximum thread starting or deceleration path is specified. The specified distance can lead to acceleration overload of the axis. The SD is written from the block when DITR (displacement thread ramp) is programmed.

Note:

MD 10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB can be set so that the value written by the part program is transferred to the active file system on reset (that is the value is retained after reset.)

42100	DRY_RUN_FEED			-	V1	
mm/min	Dry run feedrate			DOUBLE	Immediately	
-						
-	-	5000., 5000., 5000., 5000., 5000., 5000....	-	-	7/7	M

**Description:** The feedrate for the active dry run is entered in this setting data. The setting data can be altered on the operator panel in the "Parameters" operating area.

The entered dry run feedrate is always interpreted as a linear feed (G94). If the dry run feedrate is activated via the PLC interface, the dry run feedrate is used as the path feed after a reset instead of the programmed feed. The programmed velocity is used for traversing if it is greater than the velocity stored here.

Application example(s)

Program testing

Related to ....

NC/PLC interface signal DB21-30 DBX0.6 (Activate dry run feedrate)

NC/PLC interface signal DB21-30 DBX24.6 (Dry run feedrate selected)

42101	DRY_RUN_FEED_MODE			-	V1	
-	Mode for dry run velocity			BYTE	Immediately	
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	12	7/7	M

**Description:** This SD can be used to set the method of operation of the dry run velocity set by SD42100 \$SC\_DRY\_RUN\_FEED.

The following values are possible:

0:

The maximum of SD42100 \$SC\_DRY\_RUN\_FEED and the programmed velocity become active. This is the standard setting and corresponds to the behavior up to SW 5.

1:

The minimum of SD42100 \$SC\_DRY\_RUN\_FEED and the programmed velocity become active.

2:

SD42100 \$SC\_DRY\_RUN\_FEED becomes active directly, irrespective of the programmed velocity.

The values 3...9 are reserved for extensions.

10:

As configuration 0, except for thread cutting (G33, G34, G35) and tapping (G331, G332, G63). These functions are executed as programmed.

11:

As configuration 1, except for thread cutting (G33, G34, G35) and tapping (G331, G332, G63). These functions are executed as programmed.

12:

As configuration 2, except for thread cutting (G33, G34, G35) and tapping (G331, G332, G63). These functions are executed as programmed.

42110	DEFAULT_FEED	-	V1,FBFA
mm/min	Path feed default value	DOUBLE	Immediately
-			
-	-	0., 0., 0., 0., 0., 0., 0., 0., 0....	7/7 M

**Description:** Default value for path feedrate, This setting data is evaluated when the part program starts taking into account the feedrate type active at this time (see MD20150 \$MC\_GCODE\_RESET\_VALUES and MD20154 \$MC\_EXTERN\_GCODE\_RESET\_VALUES).

42120	APPROACH_FEED	-	-
mm/min	Path feedrate in approach blocks	DOUBLE	Immediately
-			
-	-	0., 0., 0., 0., 0., 0., 0., 0., 0....	7/7 M

**Description:** Default value for path feedrate in approach blocks (after repos., block search, SERUPRO etc).  
The contents of this setting data are only used when it is non-zero.  
It is evaluated like an F word programmed for G94.

42122	OVR_RAPID_FACTOR	-	\$MN_OVR_FACTOR_RAPID _TRA,\$AC_OVR
%	Add. rapid traverse override can be specified through operation	DOUBLE	Immediately
-			
-	-	100., 100., 100., 100., 100., 100., 100....	7/7 M

**Description:** Additional channel-specific rapid traverse override in %. The value is calculated to the path depending on OPI variable enableOvrRapidFactor. The value multiplies the other rapid traverse overrides (rapid traverse override of the machine control panel, override default through synchronized actions \$AC\_OVR).

42125	SERUPRO_SYNC_MASK	-	-
-	Synchronization in approach blocks	DWORD	Immediately
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	7/7 M

**Description:** A synchronized approach can be set for the search type SERUPRO with the setting data SERUPRO\_SYNC\_MASK.

SERUPRO uses the function REPOS to move from the current machine position to the target block of the search. A synchronization of the channels can be forced between the reapproach block and the target block via SERUPRO\_SYNC\_MASK which would correspond to the use of WAIT markers.

Note:

The user cannot program WAIT markers between reapproach block and target block in a part program.

SERUPRO\_SYNC\_MASK activates this internal WAIT marker, and defines for which other channels this channel is to wait.

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Example for channel 3: `$SC_SERUPRO_SYNC_MASK= 0x55`

A new block is now inserted in the Serupro approach between the reapproach block and the target block, the function of which corresponds to the following programming: `WAITM( 101, 1,3,5,7)`, i.e. a WAIT marker synchronizes the channels 1, 3, 5 and 7.

The WAIT markers used internally cannot be explicitly programmed by the user.

NOTICE:

Similarly to the part program, the user can make the error of not setting the marker in a channel, so that the other channels naturally wait for ever!

Note:

The bit mask can contain a channel that does not exist (channel gaps) without a deadlock occurring.

Example for channel 3: `$SC_SERUPRO_SYNC_MASK= 0x55` and channel 5 do not exist, so `WAITM( 101, 1,3,7)` is set.

Note: The block content corresponds to "`WAITM( 101, 1,3,5,7)`", the user does not see this block content, he sees REPOSA!

Note:

`SERUPRO_SYNC_MASK` is evaluated as soon as the part program command REPOSA is interpreted.

`SERUPRO_SYNC_MASK` can still be changed if SERUPRO is in the state "search target found".

If REPOSA has already been executed, a change to `SERUPRO_SYNC_MASK` can only become active if a new REPOS is set. This occurs, for example, by:

- Starting a new ASUB.
- STOP-JOG-AUTO-START
- STOP - select a new REPOS mode RMI/RMN/RME/RMB - START

Note:

If one uses the prog. event for search and if the NCK is at alarm 10208 then a change of `SERUPRO_SYNC_MASK` is not active unless one sets a new REPOS.

`SERUPRO_SYNC_MASK == 0` A block is NOT inserted.

Note:

If the bit for the current channel is not set in SD42125 `$SC_SERUPRO_SYNC_MASK` then a block is NOT inserted.

Example:

If `$SC_SERUPRO_SYNC_MASK= 0xE` is programmed in channel 1, then a block is NOT inserted.

This assignment is reserved for a future function!

42140	DEFAULT_SCALE_FACTOR_P	-	FBFA
-	Default scaling factor for address P	DWORD	Immediately
-			
-	-	1, 1, 1, 1, 1, 1, 1, 1...	-
			7/7 M

**Description:** The value in this machine data is active if no scaling factor P has been programmed in the block.

Related to:

`WEIGHTING_FACTOR_FOR_SCALE`

42150	DEFAULT_ROT_FACTOR_R	-	-			
-	Default rotation factor for address R	DOUBLE	Immediately			
-						
-	-	0., 0., 0., 0., 0., 0., 0., 0., 0....	-	-	7/7	M

**Description:** The value in this machine data is active if no factor for rotation R is programmed in the block.

42160	EXTERN_FIXED_FEEDRATE_F1_F9	-	FBFA			
-	Fixed feedrates F1 - F9	DOUBLE	Immediately			
-						
-	10	0., 0., 0., 0., 0., 0., 0., 0., 0....	-	-	7/7	M

**Description:** Fixed feedrate values for programming with F1 - F9. If the machine data \$MC\_FEEDRATE\_F1\_F9\_ON = TRUE is set with the programming of F1 - F9, the feedrate values are read from SD42160 \$SC\_EXTERN\_FIXED\_FEEDRATE\_F1\_F9[0] - \$SC\_EXTERN\_FIXED\_FEEDRATE\_F1\_F9[8], and activated as the machining feedrate. The rapid traverse feedrate must be entered in SD42160 \$SC\_EXTERN\_FIXED\_FEEDRATE\_F1\_F9[0].

42162	EXTERN_DOUBLE_TURRET_DIST	-	FBFA			
-	Double turret head tool distance	DOUBLE	Immediately			
-						
-	-	0., 0., 0., 0., 0., 0., 0., 0., 0....	-	-	7/7	M

**Description:** Distance between both tools of a double turret head.  
The distance is activated using G68 as additive zero point offset if MD10812 \$MN\_EXTERN\_DOUBLE\_TURRET\_ON is set to TRUE.

42200	SINGLEBLOCK2_STOPRE	-	BA			
-	Activate SBL2 debug mode	BOOLEAN	Immediately			
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/7	M

**Description:** Value = TRUE:  
A preprocessing stop is made with every block if SBL2 (single block with stop after every block) is active. This suppresses the premachining of part program blocks. This variant of the SBL2 is not true-to-contour.  
This means that a different contour characteristic might be generated as a result of the preprocessing stop than without single block or with SBL1.  
Application: Debug mode for testing part programs.

42300	COUPLE_RATIO_1	-	-			
-	Speed ratio for synchr. spindle mode, numerator, denominator	DOUBLE	Immediately			
-						
-	2	1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0...	-1.0e8	1.0e8	7/7	M

**Description:** This setting data defines the speed ratio parameters for the fixed coupling configuration defined with the channel-specific MD21300 \$MC\_COUPLE\_AXIS\_1[n].

1.4 NC setting data

-

$k_{\ddot{U}}$  = Speed ratio parameter of numerator / Speed ratio parameter of denominator  
 = \$SC\_COUPLE\_RATIO[0] / \$SC\_COUPLE\_RATIO[1]

The speed ratio parameters can be altered in the NC part program with the language instruction COUPDEF provided that this is not locked by the channel-specific MD21340 \$MC\_COUPLE\_IS\_WRITE\_PROT\_1.

However, the parameterized values of SD42300 \$SC\_COUPLE\_RATIO\_1 are not changed.

The calculation of  $k_{\ddot{U}}$  is initiated with POWER ON.

SD irrelevant for .....

User-defined coupling

Related to ....

SD42300 \$SC\_COUPLE\_RATIO\_1 currently has the same action as a machine data (e.g. active after POWER ON). The SD data are therefore displayed and input in the same way as channel-specific machine data.

42400	PUNCH_DWELLTIME	-	N4			
s	Dwell time for punching and nibbling	DOUBLE	Immediately			
-						
-	-	1.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** This data sets the dwell time between reaching the position and triggering the stroke.

The set value is rounded to an integer multiple of the interpolation cycle. (This means that the value set here can only differ slightly from that which is actually executed.)

Note:

MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB can be set so that the value written by the part program is transferred into the active file system on reset (i.e. the value is retained even after the reset).

42402	NIBPUNCH_PRE_START_TIME	-	N4			
s	Delay time (punch/nibble) with G603	DOUBLE	Immediately			
-						
-	-	.02, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** This setting data has exactly the same effect as MD26018 \$MC\_NIBBLE\_PRE\_START\_TIME. Its primary purpose is to allow the pre-start time to be altered from the NC program so that it can be adapted to different metal sheet sizes and thicknesses. However, the setting data is active only when the machine data has been set to zero.

Related to .... NIBBLE\_PRESTART\_TIME

42404	MINTIME_BETWEEN_STROKES	-	N4			
s	Minimum time between 2 strokes in seconds	DOUBLE	Immediately			
-						
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	-	-	7/7	M

**Description:** Minimum time between 2 strokes in seconds



42440	FRAME_OFFSET_INCR_PROG	-	K1,K2
-	Work offsets in frames	BOOLEAN	Immediately
-			
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	- - 7/7 M

**Description:** 0: When incremental programming is used on an axis, only the programmed position delta is traversed after a frame change. Work offsets in FRAMES are only traversed when an absolute position is specified.

1: When incremental programming is used on an axis, changes to work offsets are traversed after a frame change (standard response up to software version 3).

Related to ....

SD42442 \$SC\_TOOL\_OFFSET\_INCR\_PROG

42442	TOOL_OFFSET_INCR_PROG	-	W1,K1
-	Tool length compensations	BOOLEAN	Immediately
-			
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	- - 7/7 M

**Description:** 0: When incremental programming is used on an axis, only the programmed position delta is traversed after a frame change. Tool length offsets in FRAMES are only traversed when an absolute position is specified.

1: When incremental programming is used on an axis, changes to tool length offsets are traversed after a tool change (standard response up to SW version 3).

Related to ....

SD42440 \$SC\_FRAME\_OFFSET\_INCR\_PROG

42444	TARGET_BLOCK_INCR_PROG	-	BA
-	Set down mode after search run with calculation	BOOLEAN	Immediately
-			
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	- - 7/7 M

**Description:** If the first programming of an axis after "Search run with calculation to end of block" is incremental, the incremental value is added as a function of SD42444 \$SC\_TARGET\_BLOCK\_INCR\_PROG to the value accumulated up to the search target :

SD = TRUE: Incremental value is added to accumulated position

SD = FALSE: Incremental value is added to current actual value

The setting data is evaluated on NC start for output of the action blocks.

## 1.4 NC setting data

42450	CONTPREC	-	B1,K6
mm	Contour accuracy	DOUBLE	Immediately
-			
-	-	0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1...	0.000001 999999. 7/7 M

**Description:** Contour accuracy. This setting data can be used to define the accuracy to be maintained for the path of the geometry axes on curved contours. The lower the value and the lower the servogain factor of the geometry axes, the greater the reduction of path feed on curved contours.

Related to ....

MD20470 \$MC\_CPREC\_WITH\_FFW

SD42460 \$SC\_MINFEED

42460	MINFEED	-	B1,K6
mm/min	Minimum path feedrate for CPRECON	DOUBLE	Immediately
-			
-	-	1., 1., 1., 1., 1., 1., 1., 1....	1.e-6 1.e9 7/7 M

**Description:** Minimum path feedrate with the "Contour accuracy" function active. The feedrate is not limited to below this value unless a lower F value has been programmed or the axis dynamics do not permit it.

Related to ....

MD20470 \$MC\_CPREC\_WITH\_FFW

SD42450 \$SC\_CONTPREC

42465	SMOOTH_CONTUR_TOL	-	B1
mm	maximum contour tolerance on smoothing	DOUBLE	Immediately
-			
-	-	0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05...	0.000001 999999. 7/7 M

**Description:** This setting data defines the maximum tolerance for smoothing the contour.

Related to:

MD20480 \$MC\_SMOOTHING\_MODE,

SD42466 \$SC\_SMOOTH\_ORI\_TOL

42466	SMOOTH_ORI_TOL	-	B1
degrees	Maximum deviation of tool orientation during smoothing.	DOUBLE	Immediately
-			
-	-	0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05...	0.000001 90. 7/7 M

**Description:** This setting data defines the maximum tool orientation tolerance during smoothing.

The data determines the maximum permissible angular displacement of the tool orientation.

This data only applies if an orientation transformation is active.

Related to:

MD20480 \$MC\_SMOOTHING\_MODE,

SD42465 \$SC\_SMOOTH\_CONTUR\_TOL

42470	CRIT_SPLINE_ANGLE	-	W1,PGA
degrees	Corner limit angle for compressor	DOUBLE	Immediately
-			
-	-	36.0, 36.0, 36.0, 36.0, 36.0, 36.0, 36.0...	0.0 89.0 7/7 M

**Description:** The setting data defines the limit angle from which the compressor COMPCAD interprets a block transition as a corner. Practical values lie between 10 and 40 degrees. Values from 0 to 89 degrees inclusive are permitted.

The angle only serves as an approximate measure for corner detection. The compressor can also classify flatter block transitions as corners and eliminate larger angles as outliers on account of plausibility considerations.

42471	MIN_CURV_RADIUS	EXP, C09	-
mm	Minimum radius of curvature	DOUBLE	Immediately
-			
-	-	3.0, 3.0, 3.0, 3.0, 3.0, 3.0, 3.0, 3.0...	- - 7/7 M

**Description:** The setting data defines a typical tool radius. It is only evaluated in compressor COMPCAD. The lower the value, the greater the precision, but the slower the program execution.

42475	COMPRESS_CONTUR_TOL	-	F2,PGA
mm	maximum contour deviation with compressor	DOUBLE	Immediately
-			
-	-	0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05...	0.000001 999999. 7/7 M

**Description:** This setting data defines the maximum contour tolerance in the compressor.

42476	COMPRESS_ORI_TOL	-	F2,PGA
degrees	Maximum deviation of tool orientation with compressor	DOUBLE	Immediately
-			
-	-	0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05...	0.000001 90. 7/7 M

**Description:** This setting data defines the maximum tool orientation tolerance in the compressor. This data defines the maximum permissible angular displacement of the tool orientation.

This data is active only if an orientation transformation is active.

42477	COMPRESS_ORI_ROT_TOL	-	F2,PGA
degrees	Maximum deviation of tool rotation with compressor	DOUBLE	Immediately
-			
-	-	0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05...	0.000001 90. 7/7 M

**Description:** This setting data defines the maximum tolerance in the compressor for turning the tool orientation. This data defines the maximum permissible angular displacement of the tool rotation.

This data is only active if an orientation transformation is active.

Turning the tool orientation is only possible with 6-axis machines.

1.4 NC setting data

42480	STOP_CUTCOM_STOPRE	-	W1
-	Alarm response with tool radius compensation and preproc. stop	BOOLEAN	Immediately
-			
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	7/7 M

**Description:** If this setting data is TRUE, block execution is stopped by preprocessing stop and active tool radius compensation, and does not resume until after a user acknowledgement (START).  
If it is FALSE, machining is not interrupted at such a program point.

42490	CUTCOM_G40_STOPRE	-	W1
-	Retraction behavior of tool radius compensation with prep. stop	BOOLEAN	Immediately
-			
-	-	FALSE, FALSE, FALSE, FALSE, FALSE...	7/7 M

**Description:** FALSE:  
If there is a preprocessing stop (either programmed or generated internally by the control) before the deselection block (G40) when tool radius compensation is active, then firstly the starting point of the deselection block is approached from the last end point before the preprocessing stop. The deselection block itself is then executed, i.e. the deselection block is usually replaced by two traversing blocks. Tool radius compensation is no longer active in these blocks. The behavior is thus identical with that before the introduction of this setting data.  
TRUE:  
If there is a preprocessing stop (either programmed or generated internally by the control) before the deselection block (G40) when tool radius compensation is active, the end point of the deselection point is traversed in a straight line from the last end point before the preprocessing stop.

42494	CUTCOM_ACT_DEACT_CTRL	-	W1
-	Approach & retraction behavior with 2-1/2D tool radius compens.	DWORD	Immediately
-			
-	-	2222, 2222, 2222, 2222, 2222, 2222, 2222...	7/7 M

**Description:** This setting data controls the approach and retraction behavior with tool radius compensation if the activation or deactivation block does not contain any traversing information. It is only evaluated with 2-1/2D TRC (CUT2D or CUT2DF).

The decimal coding is as follows:

N N N N

```

| | | | ____ Approach behavior for tools with tool point direction
| | | | (turning tools)
| | | | ____ Approach behavior for tools without tool point direction
| | | | (milling tools)
| | | | ____ Retract behavior for tools with tool point direction
| | | | (turning tools)
    
```

|\_\_\_\_\_ Retract behavior for tools without tool point direction  
(milling tools)

If the position in question contains a 1, approach or retraction is always performed, even if G41/G42 or G40 stands alone in a block.

For example:

```
N100 x10 y0
N110 G41
N120 x20
```

If a tool radius of 10mm is assumed in the above example, position x10y10 is approached in block N110.

If the position in question contains the value 2, the approach or retraction movement is only performed if at least one geometry axis is programmed in the activation/deactivation block. To obtain the same results as the above example with this setting, the program must be altered as follows:

```
N100 x10 y0
N110 G41 x10
N120 x20
```

If axis information x10 is missing in block N110, activation of TRC is delayed by one block, i.e. the activation block would now be N120.

If the position in question contains a 3, retraction is not performed in a deactivation block (G40) if only the geometry axis perpendicular to the compensation plane is programmed. In this case, the motion perpendicular to the compensation plane is performed first. This is followed by the retraction motion in the compensation plane. In this case, the block after G40 must contain motion information in the compensation plane. The approach motions for values 2 and 3 are identical.

If the position in question contains a value other than 1, 2 or 3, i.e. in particular the value 0, an approach or retraction movement is not performed in a block that does not contain any traversing information.

About the term "Tools with tool point direction":

These are tools with tool numbers between 400 and 599 (turning and grinding tools), whose tool point direction has a value between 1 and 8. Turning and grinding tools with tool point direction 0 or 9 or other undefined values are treated like milling tools.

Note:

If the value of this setting data is changed within a program, we recommend programming a preprocessing stop (stopre) before the description to avoid the new value being used in program sections before that point. The opposite case is not serious, i.e. if the setting data is written, subsequent NC blocks will definitely access the new value.

42496	CUTCOM_CLSD_CONT	-	-		
-	Tool radius compensation behavior with closed contour	BOOLEAN	Immediately		
-					
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/7 M

**Description:**

FALSE:

If two intersections are created on correction of the inner side of an (almost) closed contour consisting of two successive circle blocks or a circle and a linear block, the intersection that lies on the first part contour nearer to the block end will be selected as per the default behavior.

1.4 NC setting data

A contour will be considered as (almost) closed if the distance between the starting point of the first block and the end point of the second block is smaller than 10% of the active compensation radius, but not larger than 1000 path increments (corresponds to 1mm to 3 decimal places).

TRUE:

Under the same condition as described above, the intersection that lies on the first part contour nearer to block start is selected.

42500	SD_MAX_PATH_ACCEL	-	B2
m/s <sup>2</sup>	maximum path acceleration	DOUBLE	Immediately
-			
-	-	10000., 10000., 10000., 10000., 10000....	1.0e-6
-	-		7/7
-	-		M

**Description:** Setting data for additional limitation of (tangential) path acceleration  
 Related to ...  
 MD32300 \$MA\_MAX\_AX\_ACCEL  
 SD42502 \$SC\_IS\_SD\_MAX\_PATH\_ACCEL

42502	IS_SD_MAX_PATH_ACCEL	-	B2
-	Evaluate SD42500 SC_SD_MAX_PATH_ACCEL	BOOLEAN	Immediately
-			
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-
-	-		7/7
-	-		M

**Description:** SD42500 \$SC\_SD\_MAX\_PATH\_ACCEL is included in the limit calculations if SD42502 \$SC\_IS\_SD\_MAX\_PATH\_ACCEL=TRUE  
 Related to ...  
 SD42500 \$SC\_SD\_MAX\_PATH\_ACCEL

42510	SD_MAX_PATH_JERK	-	B2
m/s <sup>3</sup>	maximum path-related jerk as setting data	DOUBLE	Immediately
-			
-	-	100000., 100000., 100000., 100000....	1.e-9
-	-		7/7
-	-		M

**Description:** As well as MD20600 \$MC\_MAX\_PATH\_JERK, the maximum path-related jerk can also limit the jerk.  
 Related to ...  
 MD20600 \$MC\_MAX\_PATH\_JERK  
 SD42512 \$SC\_IS\_SD\_MAX\_PATH\_JERK

42512	IS_SD_MAX_PATH_JERK	-	B2
-	Evaluate SD42510 SD_MAX_PATH_JERK	BOOLEAN	Immediately
-			
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-
-	-		7/7
-	-		M

**Description:** SD42510 \$SC\_SD\_MAX\_PATH\_JERK is included in the limit calculations if SD42512 \$SC\_IS\_SD\_MAX\_PATH\_JERK=TRUE  
 Related to ...  
 SD42510 \$SC\_SD\_MAX\_PATH\_JERK (SD for additional limitation of (tangential) path jerk)

42520	CORNER_SLOWDOWN_START	-	-
mm	Start of feed reduction at G62.	DOUBLE	Immediately
-			
-	-	0., 0., 0., 0., 0., 0., 0., 0., 0....	- - 7/7 M

**Description:** Traverse path distance from which the feed is reduced before the corner with G62.

42522	CORNER_SLOWDOWN_END	-	-
mm	End of feed reduction at G62.	DOUBLE	Immediately
-			
-	-	0., 0., 0., 0., 0., 0., 0., 0., 0....	- - 7/7 M

**Description:** Traverse path distance up to which the feed remains reduced after a corner with G62.

42524	CORNER_SLOWDOWN_OVR	-	-
%	Feed override reduction at G62	DOUBLE	Immediately
-			
-	-	0., 0., 0., 0., 0., 0., 0., 0., 0....	- - 7/7 M

**Description:** Override used to multiply the feed at the corner with G62.

42526	CORNER_SLOWDOWN_CRIT	-	-
degrees	Corner detection at G62	DOUBLE	Immediately
-			
-	-	0., 0., 0., 0., 0., 0., 0., 0., 0....	- - 7/7 M

**Description:** Angle from which a corner is taken into account when reducing the feed with G62.

For example SD42526 \$SC\_CORNER\_SLOWDOWN\_CRIT = 90 means that all corners of 90 degrees or a more acute angle are traversed slower with G62.

42528	CUTCOM_DECEL_LIMIT	-	-
-	Feed lowering on circles with tool radius compensation	DOUBLE	Immediately
-			
-	-	0., 0., 0., 0., 0., 0., 0., 0., 0....	0. 1. 7/7 M

**Description:** The setting data limits feed lowering of the tool center point on concave circle segments with tool radius compensation active and CFC or CFIN selected.

With CFC, the feed is defined at the contour. On concave circular arcs, feed lowering of the tool center point is created by the ratio of the contour curvature to the tool center point path curvature. The setting data is limiting this effect, reducing backing off and overheating of the tool.

For contours with varying curvatures, a mid-range curvature is used.

0: Provides the previous behavior: If the ratio between contour radius and tool center point path radius is less than or equal to 0.01 the feed is applied to the tool center point path. Less pronounced feed reductions are executed.

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>0: Feed lowering is limited to the programmed factor. At 0.01, this means that the feed of the tool center point path is possibly only 1 percent of the programmed feed value.

1: On concave contours, the tool center point feed equals the programmed feed (the behavior then corresponds to CFTCP).

42600	JOG_FEED_PER_REV_SOURCE	-	V1
-	Control revolutional feedrate in JOG	DWORD	Immediately
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-3 31 7/7 M

**Description:** The revolutional feedrate in JOG mode for geometry axes on which a frame with rotation acts.  
 0= No revolutional feedrate is active.  
 >0= Machine axis index of the rotary axis/spindle from which the revolutional feedrate is derived.  
 -1= The revolutional feedrate is derived from the master spindle of the channel in which the axis/spindle is active.  
 -2= The revolutional feedrate is derived from the axis with machine axis index == 0.  
 -3= The revolutional feedrate is derived from the master spindle of the channel in which the axis/spindle is active.No revolutional feedrate is active if the master spindle is at a standstill.  
 Related to ....  
 SD43300: \$SA\_ASSIGN\_FEED\_PER\_REV\_SOURCE (revolutional feedrate for position axes/spindles)

42650	CART_JOG_MODE	-	H1
-	Coordinate system for Cartesian jog traverse	DWORD	Immediately
-			
-	-	0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0, 0x0...	0 0x0404 7/7 M

**Description:** This SD can be used to set the reference coordinate system for Cartesian manual travel, with bits 0 to 7 provided for selecting the coordinate system for translation, bits 8 to 15 for selecting the reference system for orientation. Cartesian manual travel will not be enabled if no bit is set or if just one bit is set for translation or for orientation. This means that one bit must always be set for translation and one for orientation. Cartesian manual travel will also not be enabled if more than one bit is set for translation or orientation.  
 The meaning of the individual bits is defined as follows :

- Bit 0 : Translation in Basic Coordinate System
- Bit 1 : Translation in Workpiece Coordinate System
- Bit 2 : Translation in Tool Coordinate System
- Bit 3 : reserved
- Bit 4 : reserved
- Bit 5 : reserved
- Bit 6 : reserved
- Bit 7 : reserved
- Bit 8 : Orientation in Basic Coordinate System
- Bit 9 : Orientation in Workpiece Coordinate System
- Bit 10 : Orientation in Tool Coordinate System



Bit 11 : reserved  
 Bit 12 : reserved  
 Bit 13 : reserved  
 Bit 14 : reserved  
 Bit 15 : reserved

42660	ORI_JOG_MODE	-	-			
-	Definition of virtual kinematics for JOG	DWORD	Immediately			
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	5	7/7	M

**Description:** This SD can be used to define virtual kinematics, which become active for the manual travel of orientations.

This setting data is evaluated only by the generic 5/6-axis transformation. This data has no meaning for OEM transformations.

The following setting options are available:

- 0: The virtual kinematics are defined by the transformation.
- 1: Euler angles are traversed during jog, that is the 1st axis turns round the Z direction, the 2nd axis turns around the X direction and, if present, the 3rd axis turns around the new Z direction.
- 2: RPY angles are traversed during jog with the turning sequence XYZ, that is the 1st axis turns around the x direction, the 2nd axis turns around the Y direction and, if present, the 3rd axis turns around the new Z direction.
- 3: RPY angles are traversed during jog with the turning sequence ZYX, that is the 1st axis turns around the Z direction, the 2nd axis turns around the Y direction and, if present, the 3rd axis turns around the new X direction.
- 4: The turning sequence of the rotary axes is set by means of MD21120 \$MC\_ORIAX\_TURN\_TAB\_1.
- 5: The turning sequence of the rotary axes is set by means of MD21130 \$MC\_ORIAX\_TURN\_TAB\_2.

42670	ORIPATH_SMOOTH_DIST	-	-			
mm, degrees	Path for smoothing the orientation	DOUBLE	Immediately			
-						
-	-	0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05...	-	-	7/7	M

**Description:** Displacement by which a jump in the tool orientation is smoothed with ORIPATH path-relative orientation interpolation. There is a deviation within this displacement from the relation of the orientation to the path tangent and the surface normal vector programmed with LEAD/TILT.

If zero is entered for this path length (SD42670 \$SC\_ORIPATH\_SMOOTH\_DIST = 0.0), an intermediate block is inserted for smoothing the orientation. This means that the path motion remains at a stop in a corner and the orientation is then turned separately.

42672	ORIPATH_SMOOTH_TOL	-	-			
degrees	Tolerance for smoothing the orientation	DOUBLE	Immediately			
-						
-	-	0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05...	0.000001	-	7/7	M

**Description:** Maximum angle (in degrees) for the deviation of the tool orientation with ORIPATH path-relative orientation interpolation. This angular tolerance is used for smoothing a "kink" in the orientation path.

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42674	ORI_SMOOTH_DIST	-	-
mm, degrees	Path for orientation smoothing during smoothing	DOUBLE	Immediately
-			
-	-	0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05...	0.000001
-	-	-	7/7
-	-	-	M

**Description:** Path through which a tool orientation bend is smoothed on a block transition with G code OSD.

42676	ORI_SMOOTH_TOL	-	-
degrees	Tolerance for orientation smoothing during smoothing	DOUBLE	Immediately
-			
-	-	0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05...	0.000001
-	-	-	7/7
-	-	-	M

**Description:** Maximum angle (in degree) for the tool orientation deviation during orientation smoothing with G code OST with a bend in the orientation curve on block transitions.

42678	ORISON_TOL	-	-
degrees	Tolerance for smoothing the orientation	DOUBLE	Immediately
-			
-	-	10.00, 10.00, 10.00, 10.00, 10.00, 10.00...	-
-	-	-	7/7
-	-	-	M

**Description:** Maximum angle (in degree) for the tool orientation deviation during orientation smoothing with the G code ORISON over several blocks.  
The tolerance specification with the SD \$SC\_ORISON\_TOL is valid only if no programmed orientation tolerance (OTOL) is active.  
This behavior is the default setting. With MD20478 \$MC\_ORISON\_MODE, however, this can be changed.

42690	JOG_CIRCLE_CENTRE	-	-
mm	Center of the circle	DOUBLE	Immediately
-			
-	3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	-
-	-	-	7/7
-	-	-	M

**Description:** This setting data is used to define the circle center point in the workpiece coordinate system during JOG of circles.  
Only the relevant center point coordinates of the geometry axes in the active plane are evaluated, not the coordinate of the geometry axis vertical to the plane. This setting data is written via the user interface.  
By default the coordinate of an axis with diameter programming is in the diameter. This can be changed with MD20360 \$MC\_TOOL\_PARAMETER\_DEF\_MASK Bit 13 = 1 by indicating a radius.

42691	JOG_CIRCLE_RADIUS	-	-
mm	Circle radius	DOUBLE	Immediately
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-
-	-	-	7/7
-	-	-	M

**Description:** With this setting data, the circle radius in the machine, the maximum circle during inner machining or the minimum circle during outer machining are defined when jogging circles. This setting data is written via the user interface.

42692	JOG_CIRCLE_MODE	-	-			
-	JOG of circles mode	DWORD	Immediately			
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	0xf	7/7	M

**Description:** This setting data sets the following during JOG of circles:

Bit 0 = 0 :  
Travel to + creates traversing on a circular path in counterclockwise direction; travel to - creates traversing in clockwise direction.

Bit 0 = 1 :  
Travel to + creates traversing on a circular path in clockwise direction; travel to - creates traversing in counterclockwise direction.

Bit 1 = 0 :  
The tool radius is not taken into account in checking the limitation produced by the specified circle or by the circle segment limited by the start and end angles.

Bit 1 = 1 :  
The tool radius is taken into account in checking the limitation produced by the specified circle or by the circle segment limited by the start and end angles.

Bit 2 = 0 :  
Internal machining is performed. The circle radius in SD42691 \$SC\_JOG\_CIRCLE\_RADIUS is the maximum possible radius.

Bit 2 = 1 :  
External machining is performed. The circle radius in SD42691 \$SC\_JOG\_CIRCLE\_RADIUS is the minimum possible radius.

Bit 3 = 0 :  
Given a full circle, the radius is enlarged starting from the circle center point in the direction of the ordinate (2nd geometry axis) of the plane.

Bit 3 = 1 :  
Given a full circle, the radius is enlarged starting from the circle center point in the direction of the abscissa (1st geometry axis) of the plane.

This setting data should be written via the user interface.

42693	JOG_CIRCLE_START_ANGLE	-	-			
degrees	Circle start angle	DOUBLE	Immediately			
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	360	7/7	M

**Description:** This setting data defines the start angle during JOG of circles. The start angle refers to the abscissa of the current plane. Traversing is only possible within the range between the start and the end angle. SD42692 \$SC\_JOG\_CIRCLE\_MODE bit 0 defines the direction from the start to the end angle. If start and end angle equal zero, no limitation is active. This setting data is written via the user interface.

42694	JOG_CIRCLE_END_ANGLE	-	-			
degrees	Circle end angle	DOUBLE	Immediately			
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	360	7/7	M

**Description:** This setting data defines the end angle during JOG of circles.  
The end angle refers to the abscissa of the current plane. Traversing is only possible within the range  
between the start and the end angle. SD42692 \$SC\_JOG\_CIRCLE\_MODE bit 0 defines the direction from the start to the end angle. If start and end angle equal zero, no limitation is active.  
This setting data is written via the user interface.

42700	EXT_PROG_PATH	-	K1			
-	Program path for external subroutine call EXTCALL	STRING	Immediately			
-						
-	-	...	-	-	7/7	M

**Description:** The total path results from the string chaining of SD42700 \$SC\_EXT\_PROG\_PATH + the programmed subprogram identifier.

42750	ABSBLOCK_ENABLE	-	K1			
-	Enable base block display	BOOLEAN	Immediately			
-						
-	-	TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE...	-	-	7/7	M

**Description:** Value 0: Disable basic blocks with absolute values (basic block display)  
Value 1: Enable basic blocks with absolute values (basic block display)

42800	SPIND_ASSIGN_TAB	-	S1			
-	Spindle number converter.	BYTE	Immediately			
-						
-	21	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17...	0	21	7/7	M

**Description:** The spindle converter converts the programmed (= logical) spindle number to the physical (= internal, configured) spindle number.  
The index of the setting data (SD) corresponds to the programmed spindle number or the programmed address extension.  
The SD contains the physical spindle which actually exists.  
Special cases, errors, .....

Notes:

- The zero index (SPIND\_ASSIGN\_TAB[0]) is only used to display the master spindle selected in the channel and must not be overwritten.
- Changes to the spindle converter take effect immediately. It is therefore not advisable to change the spindle converter for spindles used in a part program from the HMI or PLC while a part program is running.
- After "delete SRAM", the numbers of the logical and physical spindles are identical.

42900	MIRROR_TOOL_LENGTH	-	W1
-	Sign change of tool length with mirror image machining	BOOLEAN	Immediately
-			
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	- - 7/7 M

**Description:**

TRUE:

If a frame with mirror image machining is active, the tool components (\$TC\_DP3[... , ...] to \$TC\_DP5[... , ...]) and the components of the base dimensions (\$TC\_DP21[... , ...] to \$TC\_DP23[... , ...]) whose associated axes are mirrored, are also mirrored, i.e. their sign is inverted. The wear values are not mirrored. If the wear values are to be mirrored too, SD42910 \$SC\_MIRROR\_TOOL\_WEAR must be set.

FALSE:

The sign for tool length components is unaffected by whether a frame with mirror image machining is active.

42910	MIRROR_TOOL_WEAR	-	W1
-	Sign change of tool wear with mirror image machining	BOOLEAN	Immediately
-			
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	- - 7/7 M

**Description:**

TRUE:

If a frame with mirror image machining is activated, the signs of the wear values of the components in question are inverted. The wear values of the components that are not assigned to mirrored axes remain unchanged.

FALSE:

The signs for wear values are unaffected by whether a frame with mirror image machining is active.

42920	WEAR_SIGN_CUTPOS	-	W1
-	Sign of tool wear depending on tool point direction	BOOLEAN	Immediately
-			
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	- - 7/7 M

**Description:**

TRUE:

In the case of tools with a relevant tool point direction (turning and grinding tools), the sign for wear of the tool length components depends on the tool point direction.

The sign is inverted in the following cases (marked with an X):

Tool point direction	Length 1	Length 2
1		
2	X	
3	X	X
4		X
5		
6		

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7 X  
 8 X  
 9

The sign for wear value of length 3 is not influenced by this setting data.  
 The SD42930 \$SC\_WEAR\_SIGN acts in addition to this setting data.

FALSE:

The sign for wear of the tool length components is unaffected by the tool point direction.

42930	WEAR_SIGN	-	W1
-	Sign of wear	BOOLEAN	Immediately
-			
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	7/7 M

**Description:** TRUE:  
 The sign for wear of the tool length components and the tool radius are inverted, i.e. if a positive value is entered, the total dimension is decreased.  
 FALSE:  
 The sign for wear of the tool length components and the tool radius is not inverted.

42935	WEAR_TRANSFORM	-	W1,W4
-	Transformations for tool components	DWORD	Immediately
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	7/7 M

**Description:** This setting data is bit-coded.  
 It determines which of the three wear components wear (\$TC\_DP12 - \$TC\_DP14), additive offsets fine (\$TC\_SCPx3 - \$TC\_SCPx5), and additive offsets coarse (\$TC\_ECPx3 - \$TC\_ECPx5) are subject to adapter transformation and transformation by an orientable tool holder, if one of the two G codes TOWMCS or TOWWCS from G code group 56 is active. If initial-setting G code TOWSTD is active, this setting data will not become active.  
 Then, the following assignment is valid:  
 Bit 0 = TRUE: Do not apply transformations to \$TC\_DP12 - \$TC\_DP14.  
 Bit 1 = TRUE: Do not apply transformations to \$TC\_SCPx3 - \$TC\_SCPx5.  
 Bit 2 = TRUE: Do not apply transformations to \$TC\_ECPx3 - \$TC\_ECPx5.  
 The bits not mentioned here are (currently) not assigned.

42940	TOOL_LENGTH_CONST	-	W1
-	Change of tool length components with change of active plane	DWORD	Immediately
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	7/7 M

**Description:** If this setting data is not equal to 0, the assignment of tool length components (length, wear, base dimensions) to geometry axes is not changed when the machining plane (G17 - G19) is changed.

The assignment of tool length components to geometry axes can be derived from the value of the setting data acc. to the following tables.

A distinction is made between turning and grinding tools (tool types 400 to 599) and other tools (typically milling tools) in the assignment.

Representation of this information in tables assumes that geometry axes 1 to 3 are called X, Y and Z. For assignment of an offset to an axis, not the axis identifier but the axis sequence is relevant.

Assignment for turning tools and grinding tools (tool types 400 to 599):

Content	Length 1	Length 2	Length 3
17	Y	X	Z
18*	X	Z	Y
19	Z	Y	X
-17	X	Y	Z
-18	Z	X	Y
-19	Y	Z	X

\* Any value which is not 0 and is not one of the six values listed, is treated as value 18.

For values that are the same but with a different sign, assignment of length 3 is always the same, lengths 1 and 2 are reversed. Assignment for all tools which are neither turning nor grinding tools (tool types < 400 or > 599):

Content	Length 1	Length 2	Length 3
17*	Z	Y	X
18	Y	X	Z
19	X	Z	Y
-17	Z	X	Y
-18	Y	Z	X
-19	X	Y	Z

\* Any value which is not 0 and is not one of the six values listed, is treated as value 17.

For values that are the same but with a different sign, assignment of length 1 is always the same, lengths 2 and 3 are reversed.

If the hundreds position of the settings data is 1, the sign of the second length component is inverted.

If the thousands position of the setting data is 1, tool orientation and tool normal vector are interpreted according to the content of the decade and unit position. Otherwise, these two vectors are derived from the current G code of group 6 (G17 - G19). This applies only, however, if the tool orientations were not explicitly specified using tool parameters \$TC\_DPvX[i, j] or \$TC\_DPvNx[i, j].

Example:

The tool orientation is not explicitly specified and G17 is active. The current tool is a milling cutter, i.e. the length components L1, L2, L3 act in the coordinate directions Z, Y, X (in this order). The tool is therefore oriented in the Z direction, i.e. the tool orientation vector is (0, 0, 1).

If now \$SC\_TOOL\_LENGTH\_CONST = 18 is set, the tool lengths are interpreted as if G18 were active, i.e. L1, L2, L3 act in Y, X, Z, but the orientation vector continues to point in the Z direction.

If additionally the thousands position is set to 1, i.e.

\$SC\_TOOL\_LENGTH\_CONST = 1018, the tool orientation vector is also modified as if G18 were active, i.e. the tool is oriented in the Y direction (tool orientation vector (0, 1, 0)). This setting thus means that tool length and tool orientation are treated equally.

42950	TOOL_LENGTH_TYPE	-	W1
-	Assignment of tool length compensation independent of tool type	DWORD	Immediately
-			
-	-	0, 0, 0, 0, 0, 0, 0, 0...	- - 7/7 M

**Description:** This setting data defines the assignment of the tool length components to the geometry axes independently of the tool type. It can assume any value between 0 and 2. Any other value is interpreted as 0.

Value

0: Standard assignment. A distinction is made between turning and grinding tools (tool types 400 to 599) and other tools (milling tools).

1: The assignment of the tool length components is independent of the actual tool type, always as for milling tools.

2: The assignment of the tool length components is independent of the actual tool type, always as for turning tools.

The setting data also affects the wear values assigned to the length components.

If SD42940 \$SSC\_TOOL\_LENGTH\_CONST is set, the tables defined there access the table for milling and turning tools defined by SD42950 \$SSC\_TOOL\_LENGTH\_TYPE irrespective of the actual tool type, if the value of the table is not equal to 0.

42960	TOOL_TEMP_COMP	-	W1
-	Temperature compensation for tool	DOUBLE	Immediately
-			
-	3	0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	- - 7/7 M

**Description:** Temperature compensation value for the tool. The compensation value acts as vector according to the current rotation of the tool direction.

This setting data will only be evaluated, if temperature compensation has been activated for tools with MD20390 \$MC\_TOOL\_TEMP\_COMP\_ON.

Apart from that, the temperature compensation type must be set in bit 2 for the "Compensation in tool direction" MD32750 \$MA\_TEP\_COMP\_TYPE.

The "Temperature compensation" is an option that has to be previously enabled.

42970	TOFF_LIMIT	-	F2
mm	Upper limit of correction value via \$AA_TOFF	DOUBLE	Immediately
-			
-	3	100000000.0, 100000000.0, 100000000.0...	- - 7/7 M

**Description:** Upper limit of the offset value which can be defined by means of synchronized actions via the \$AA\_TOFF system variable.

This limit value influences the absolutely effective amount of offset through \$AA\_TOFF.

Whether the offset value is within the limit range can be checked via the \$AA\_TOFF\_LIMIT system variable.



42974	TOCARR_FINE_CORRECTION		C08	-		
-	Fine offset TCARR ON / OFF		BOOLEAN	Immediately		
-						
-	-	FALSE, FALSE, FALSE, FALSE, FALSE, FALSE...	-	-	7/7	M

**Description:** TRUE:  
On activating an orientable tool holder, the fine offset values are considered.

FALSE:  
On activating an orientable tool holder, the fine offset are not considered.

42980	TOFRAME_MODE		-	K2		
-	Frame definition at TOFRAME, TOROT and PAROT		DWORD	Immediately		
-						
-	-	1000, 1000, 1000, 1000, 1000, 1000, 1000...	-	-	7/7	M

**Description:** This setting data defines the direction of the geometry axes on the machining plane (XY in the case of G17) in the case of the frame definition by means of (TOROTY, TOROTX) or for PAROT.

When a frame is calculated, the tool direction (Z in the case of G17) is uniquely defined so that the tool direction and vertical axis (Z in the case of G17) of the frame are parallel and lie perpendicular on the machining plane.

Rotation around the tool axis is free at first. This free rotation can be defined using this setting data so that the newly defined frame deviates as little as possible from a previously active frame.

In all cases in which the setting data is not zero, an active frame remains unchanged if the tool direction (Z in the case of G17) of the old and the new frame are the same.

SD42980 >= 2000:  
In the case of TOROT (or TOROTY and TOROTX), the rotations and translations of the frame chain are used to calculate a frame in the tool reference system frame (\$P\_TOOLFRAME) berechnet.

Machine data 21110 \$MC\_X\_AXIS\_IN\_OLD\_X\_Z\_PLANE is not evaluated.

The explanatory notes below refer to the G17 plane with the XY axes in the machining plane and the tool axis being Z.

SD42980 = 2000:  
Rotation around the Z axis is selected so that the angle between the new X axis and the old X-Z plane has the same absolute value as the angle between the new Y axis and the old Y-Z plane. This setting corresponds to the mean value of both settings which would result for values 2001 and 2002 of this setting data.

It is also applied if the value of the units digit is greater than 2.

SD42980 = 2001:  
The new X direction is selected so that it lies in the X-Z plane of the old coordinate system. The angular difference between the old and new Y axes is minimal with this setting.

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SD42980 = 2002:

The new Y direction is selected so that it lies in the Y-Z plane of the old coordinate system. The angular difference between the old and new X axes is minimal with this setting.

None of the other settings of SD42980 (0,1,2,...1000,1001..) should be used for recommissioning.

For compatibility reasons, the following settings remain valid:

0: The orientation of the coordinate system is determined by the value of machine data 21110 \$MC\_X\_AXIS\_IN\_OLD\_X\_Z\_PLANE.

1: The new X direction is selected so that it lies in the X-Z plane of the old coordinate system. The angular difference between the old and new Y axes is minimal with this setting.

2: The new Y direction is selected so that it lies in the Y-Z plane of the old coordinate system. The angular difference between the old and new X axes is minimal with this setting.

3: The average of the two settings resulting from 1 and 2 is selected.

Addition of 100: In the case of a plane change from G17 to G18 or G19, a tool matrix is generated, in which the new axis directions are parallel to the old directions. The axes are swapped cyclically accordingly (standard transformation on plane changes). If the hundreds digit equals zero, a matrix is supplied in the cases of G18 and G19 which is derived from the unit matrix by simply rotating through 90 degrees around the X axis (G18) or through 90 degrees around the Y axis (G19). Thus in each case one axis is antiparallel to an initial axis. This setting is required to remain compatible with old software versions.

Addition of 1000: The tool-frame is linked to any active basic frames and settable frames. The response is thus compatible with earlier software versions (before 5.3). If the thousands digit is not set, the tool frame is calculated so that any active basic frames and settable frames are taken into account.

42984	CUTDIRMOD	C08	-
-	Modification of \$P_AD[2] or \$P_AD[11]	STRING	Immediately
-			
-	-	...	-
			7/7 M

**Description:** States whether the tool point direction and cutting direction are to be modified on reading the corresponding system variables \$P\_AD[2] and \$P\_AD[11]. Modification is made by rotating the vector of the tool point direction or cutting direction by a specific angle in the active machining plane (G17-G19). The resulting output value is always the tool point direction or cutting direction created by the rotation or to which the rotated value is closest. the angle of rotation can be defined by one of the following six options:

- 1: The string is empty. The stated data are output unchanged.
- 2: The contents of the string is "P\_TOTFRAME". The resulting rotation is determined from the total frame.
- 3: The contents of the string is a valid frame name (e.g. \$P\_NCBFRAME[3]). The resulting rotation is then calculated from this frame.
- 4: The contents of the string has the form "Frame1 : Frame2". The resulting rotation is determined from the part frame chain that is created by chaining all frames from Frame1 to Frame2 (in each case inclusive). Frame1 and Frame2 are valid frame names such as \$P\_PFRAME or \$P\_CHBFRAME[5]"

5: The contents of the frame is the valid name of a rotary axis (machine axis). The resulting rotation is determined from the programmed end position of this rotary axis. Additionally, an offset can be stated (in degrees, e.g. "A+90).

6: The rotation is programmed explicitly (in degrees).

Optionally, the first character of the string can be written as sign (+ or -). A plus sign will not have any effect on the angle calculation, but a minus sign will invert the sign of the calculated angle.

42990	MAX_BLOCKS_IN_IPOBUFFER	-	K1			
-	maximum number of blocks in IPO buffer	DWORD	Immediately			
-						
-	-	-1, -1, -1, -1, -1, -1, -1, -1...	-	-	7/7	M

**Description:** This setting data can be used to limit the maximum number of blocks in the interpolation buffer to the maximum number specified in MD28060 \$MC\_MM\_IPO\_BUFFER\_SIZE.  
A negative value means that no limitation of the number of blocks is active in the interpolation buffer, and the number of blocks is determined solely by MD28060 \$MC\_MM\_IPO\_BUFFER\_SIZE (default setting).

42995	CONE_ANGLE	-	-			
-	Taper angle	DOUBLE	Immediately			
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	-90	90	7/7	M

**Description:** This setting data writes the taper angle for taper turning. This setting data is written via the operator interface.

42996	JOG_GEOAX_MODE_MASK	-	-			
-	JOG of geometry axis mode	DWORD	Immediately			
-						
-	-	0, 0, 0, 0, 0, 0, 0, 0...	0	0x7	7/7	M

**Description:** This setting data sets the following during JOG of geometry axes:  
Bit 0 = 1 :  
A traversing request for the 1st geometry axis is inverted, i.e. a traversing request to + triggers a traversing motion to - .  
Bit 1 = 1 :  
A traversing request for the 2nd geometry axis is inverted, i.e. a traversing request to + triggers a traversing motion to - .  
Bit 2 = 1:  
A traversing request for the 3rd geometry axis is inverted, i.e. a traversing request to + triggers a traversing motion to - .

42998	CUTMOD_PLANE_TOL	-	-			
degrees	Deviation tool tip/machining plane	DOUBLE	Immediately			
-						
-	-	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0...	0.0	89.0	7/3	M

**Description:** This setting data specifies by how many degrees the tool tip may be rotated from the machining plane when calling the CUTMOD or CUTMODK function.  
If the value of this setting data is 0, then the absolute value of the specified angle can be a maximum of 89° degrees.

43100	LEAD_TYPE	-	M3
-	Defines what is used as master value	DWORD	Reset
CTEQ			
-	-	1	0
-	-	2	7/7
-	-		M

**Description:** Defines which value is to be used as master value:

- 0: Actual value
- 1: Setpoint
- 2: Simulated master value

43102	LEAD_OFFSET_IN_POS	-	M3
-	Offset of master value if coupled to this axis	DOUBLE	Reset
-			
-	-	0.0	-1e15
-	-	1e15	7/7
-	-		M

**Description:** Offset of the master value before use on the coupling.

If this axis is a master value coupled following axis with CTABP as the curve table and X as the master value, then its position setpoint is calculated from  $LEAD\_OFFSET\_OUT\_POS + LEAD\_SCALE\_OUT\_POS * CTABP(LEAD\_OFFSET\_IN\_POS + LEAD\_SCALE\_IN\_POS * X)$

Related to ....

- SD43104 \$SA\_LEAD\_SCALE\_IN\_POS
- SD43106 \$SA\_LEAD\_OFFSET\_OUT\_POS
- SD43108 \$SA\_LEAD\_SCALE\_OUT\_POS

43104	LEAD_SCALE_IN_POS	-	M3
-	Scaling of master value if coupled to this axis	DOUBLE	Reset
-			
-	-	1.0	-1e15
-	-	1e15	7/7
-	-		M

**Description:** Scaling of the master value before use on the coupling.

If this axis is a master value coupled following axis with CTABP as the curve table and X as the master value, then its position setpoint is calculated from  $LEAD\_OFFSET\_OUT\_POS + LEAD\_SCALE\_OUT\_POS * CTABP(LEAD\_OFFSET\_IN\_POS + LEAD\_SCALE\_IN\_POS * X)$

Related to ....

- SD43102 \$SA\_LEAD\_OFFSET\_IN\_POS
- SD43106 \$SA\_LEAD\_OFFSET\_OUT\_POS
- SD43108 \$SA\_LEAD\_SCALE\_OUT\_POS

43106	LEAD_OFFSET_OUT_POS	-	M3
mm, degrees	Offset of the functional value of the curve table	DOUBLE	Reset
-			
-	-	0.0	-1e15
-	-	1e15	7/7
-	-		M

**Description:** Offset of the master value before use on the coupling.

If this axis is a master value coupled following axis with CTABP as the curve table and X as the master value, then its position setpoint is calculated from  $LEAD\_OFFSET\_OUT\_POS + LEAD\_SCALE\_OUT\_POS * CTABP(LEAD\_OFFSET\_IN\_POS + LEAD\_SCALE\_IN\_POS * X)$

Related to ....

- SD43102 \$SA\_LEAD\_OFFSET\_IN\_POS
- SD43104 \$SA\_LEAD\_SCALE\_IN\_POS

## SD43108 \$SA\_LEAD\_SCALE\_OUT\_POS

43108	LEAD_SCALE_OUT_POS	-	M3
-	Scaling of functional value of the curve table	DOUBLE	Reset
-			
-	-	1.0	-1e15
-		1e15	7/7
			M

**Description:** Scaling of the function value before use of the curve table.  
 If this axis is a master value coupled following axis with CTABP as the curve table and X as the master value, then its position setpoint is calculated from  $LEAD\_OFFSET\_OUT\_POS + LEAD\_SCALE\_OUT\_POS * CTABP(LEAD\_OFFSET\_IN\_POS + LEAD\_SCALE\_IN\_POS * X)$   
 Related to ....  
 SD43102 \$SA\_LEAD\_OFFSET\_IN\_POS  
 SD43104 \$SA\_LEAD\_SCALE\_IN\_POS  
 SD43106 \$SA\_LEAD\_OFFSET\_OUT\_POS

43120	DEFAULT_SCALE_FACTOR_AXIS	-	FBFA
-	Axial default scaling factor with G51 active	DWORD	Immediately
-			
-	-	1	-
-			7/7
			M

**Description:** If no axial scaling factor I, J, or K is programmed in the G51 block, SD43120 \$SA\_DEFAULT\_SCALE\_FACTOR\_AXIS is active. The scaling factor is only active if MD22914 \$MC\_AXES\_SCALE\_ENABLE is set.  
 Related to:  
 MD22914 \$MC\_AXES\_SCALE\_ENABLE,  
 MD22910 \$MC\_WEIGHTING\_FACTOR\_FOR\_SCALE

43200	SPIND_S	-	S1
rev/min	Speed for spindle start by VDI	DOUBLE	Immediately
-			
-	-	0.0	-
-			7/7
			M

**Description:** Spindle speed at spindle start by NC/PLC interface signals DB31, ... DBX30.1 (Spindle start clockwise rotation) and DB31, ... DBX30.2 (Spindle start counterclockwise rotation).  
 Example: \$SA\_SPIND\_S[S1] = 600  
 Spindle 1 is started at a speed of 600 rpm upon detection of the positive edge of one of the above-mentioned VDI starting signals.  
 Speed programming values are entered in the SD by setting bit 4=1 in MD35035 \$MA\_SPIND\_FUNCTION\_MASK.  
 The SD becomes active in JOG mode as a default speed by setting bit 5=1 in MD35035 \$MA\_SPIND\_FUNCTION\_MASK (exception: the value is zero).  
 Related to:  
 MD35035 \$MA\_SPIND\_FUNCTION\_MASK  
 MD10709 \$MN\_PROG\_SD\_POWERON\_INIT\_TAB  
 MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB

43202	SPIND_CONSTCUT_S	-	S1
m/min	Const cut speed for spindle start by VDI	DOUBLE	Immediately
-			
-	-	0.0	-
-	-	-	-
-	-	-	7/7
-	-	-	M

**Description:**

Definition of the constant cutting speed for the master spindle.

The setting data is evaluated at spindle start by the NC/PLC interface signals DB31, ... DBX30.1 (Spindle start clockwise rotation) and DB31, ... DBX30.2 (Spindle start counterclockwise rotation)

Cutting speed programming values are entered in the SD by setting bit 8=1 in MD35035 \$MA\_SPIND\_FUNCTION\_MASK.

Related to:

MD35035 \$MA\_SPIND\_FUNCTION\_MASK  
MD10709 \$MN\_PROG\_SD\_POWERON\_INIT\_TAB  
MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB

43206	SPIND_SPEED_TYPE	A06	-
-	Spindle speed type for spindle start through VDI	DWORD	Immediately
-			
-	-	94	93
-	-	-	973
-	-	-	7/7
-	-	-	M

**Description:**

Definition of the spindle speed type for the master spindle.

The range of values and the functionality correspond to the 15th G group "feed type".

Permissible values are the G values: 93, 94, 95, 96, 961, 97, 971 and 973. The stated values make a functional distinction between the following variants:

==> 93, 94, 95, 97 and 971: The spindle is started at the speed in SD 43200 \$SA\_SPIND\_S.

==> 96 and 961: The speed of the spindle is derived from the cutting speed of SD 43202 \$SA\_SPIND\_CONSTCUT\_S and the radius of the transverse axis.

==> 973: G973 behaves like G97, but the spindle speed limitation is not active

The default value is 94 (corresponds to G94)

The default value becomes active if the SD is written with impermissible values.

43210	SPIND_MIN_VELO_G25	-	S1
rev/min	Programmed spindle speed limitation G25	DOUBLE	Immediately
-			
-	-	0.0	-
-	-	-	-
-	-	-	7/7
-	-	-	M

**Description:**

A minimum spindle speed limit below which the spindle must not fall is entered in SPIND\_MIN\_VELO\_G25. The NCK limits the set spindle speed to this value if it is too low.

The spindle speed may only fall below the minimum as a result of:

- Spindle offset 0%
- M5
- S0
- NC/PLC interface signal DB31, ... DBX4.3 (Spindle stop)
- NC/PLC interface signal DB31, ... DBX2.1 (Servo enable)
- NC/PLC interface signal DB21-30 DBX35.7 (Channel status: Reset)

- NC/PLC interface signal DB31, ... DBX2.2 (Delete distance-to-go/Spindle reset)
- NC/PLC interface signal DB31, ... DBX18.5 (Oscillation speed)
- Cancel S value

SD irrelevant to .....

other spindle modes used in open-loop control mode (SPOS, M19, SPOSA)

Related to:

MD10709 \$MN\_PROG\_SD\_POWERON\_INIT\_TAB

MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB

43220	SPIND_MAX_VELO_G26	-	S1
rev/min	Programmable upper spindle speed limitation G26	DOUBLE	Immediately
-			
-	-	1000.0	-
-	-	-	7/7 M

**Description:** A maximum spindle speed is entered in SD43220 \$SA\_SPIND\_MAX\_VELO\_G26, which the spindle must not exceed. The NCK limits an excessive spindle speed set-point to this value.

SD irrelevant for .....

all spindle modes except open-loop control mode.

Special cases, errors, .....

The value in SD43210 \$SA\_SPIND\_MIN\_VELO\_G26 can be altered by means of:

- G26 S.... in the part program
- Operator commands via HMI

The value in SD43210 \$SA\_SPIND\_MIN\_VELO\_G26 is retained after a reset or Power Off.

Related to ....

SD43210 \$SA\_SPIND\_MIN\_VELO\_G25 (programmed spindle speed limit G25)

SD43230 \$SA\_SPIND\_MAX\_VELO\_LIMS (programmed spindle speed limit G96/961)

MD10709 \$MN\_PROG\_SD\_POWERON\_INIT\_TAB

MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB

43230	SPIND_MAX_VELO_LIMS	-	S1,Z1
rev/min	Spindle speed limitation with G96	DOUBLE	Immediately
-			
-	-	100.0	-
-	-	-	7/7 M

**Description:** Limits the spindle speed with G96, G961, G97 to the stated maximum value [degrees/second]. This setting data can be written from the block with LIMS.

Note:

MD 10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB can be set so that the value written by the part program is transferred into the active file system on reset (that is the value is retained after reset).

Related to ....

SD43210 \$SA\_SPIND\_MIN\_VELO\_G25 (programmed spindle speed limit G25)

SD43230 \$SA\_SPIND\_MAX\_VELO\_LIMS (programmed spindle speed limit with G96/961)

MD10709 \$MN\_PROG\_SD\_POWERON\_INIT\_TAB

MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB

## 1.4 NC setting data

43235	SPIND_USER_VELO_LIMIT	A06			S1,Z1	
rev/min	Maximum spindle speed	DOUBLE			Immediately	
-						
-	-	1.0e+8	-	-	7/7	M

**Description:** The user can enter a maximum spindle speed.  
The NCK limits an excessive spindle setpoint speed to this value. The SD is effective immediately.  
Corresponds with:  
MD35100 \$MA\_SPIND\_VELO\_LIMIT (maximum spindle speed)  
MD35110 \$MA\_GEAR\_STEP\_MAX\_VELO (maximum speed for gear stage change)

43240	M19_SPOS	-, A12			S1	
degrees	Spindle position for spindle positioning with M19.	DOUBLE			Immediately	
-						
-	-	0.0	-10000000.0	10000000.0	7/7	M

**Description:** Spindle position in [ DEGREES ] for spindle positioning with M19.  
The position approach mode is defined in \$SA\_M19\_SPOSMODE.  
Default positions must lie in the range  $0 \leq \text{pos} < \text{MD30330 } \$\text{MA\_MODULO\_RANGE}$ .  
Path defaults (SD43250 \$SA\_M19\_SPOSMODE = 2) can be positive or negative and are only limited by the input format.

43250	M19_SPOSMODE	-, A12			S1	
-	Spindle position approach mode for spindle positioning with M19.	DWORD			Immediately	
-						
-	-	0	0	5	7/7	M

**Description:** Spindle position approach mode for spindle positioning with M19.  
In which signify:  
0: DC (default) approach position on the shortest path.  
1: AC approach position normally.  
2: IC approach incrementally (as path), sign gives the traversing direction  
3: DC approach position on the shortest path.  
4: ACP approach position from the positive direction.  
5: ACN approach position from the negative direction.

43300	ASSIGN_FEED_PER_REV_SOURCE	-			V1,P2,S1	
-	Revolutional feedrate for positioning axes/spindles	DWORD			Immediately	
CTEQ						
-	-	0	-3	31	7/7	M

**Description:** 0= No revolutional feedrate is active.  
>0= Machine axis index of the rotary axis/spindle, from which the revolutional feedrate is derived.  
-1= The revolutional feedrate is derived from the master spindle of the channel in which the axis/spindle is active  
-2= The revolutional feedrate is derived from the axis with machine axis index == 0 or the axis with an index in MD10002 \$MN\_AXCONF\_LOGIC\_MACHAX\_TAB == 0.



-3= The revolutional feedrate is derived from the master spindle of the channel in which the axis/spindle is active. No revolutional feedrate is active if the master spindle is at a standstill.

Related to ....

SD42600 \$SSC\_JOG\_FEED\_PER\_REV\_SOURCE (revolutional feedrate for geometry axes on which a frame with rotation acts in JOG mode.)

MD10709 \$MN\_PROG\_SD\_POWERON\_INIT\_TAB

MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB

43320	JOG_POSITION	-	-			
mm, degrees	JOG position	DOUBLE	Immediately			
-						
-	-	0.0	-	-	7/7	M

**Description:** Position to be approached in JOG. Depending on MD10735 \$MN\_JOG\_MODE\_MASK bit 4 axial frames and, with an axis configured as geometry axis, the tool length offset are considered.

43340	EXTERN_REF_POSITION_G30_1	-, A12	FBFA			
-	Reference point position for G30.1	DOUBLE	Immediately			
-						
-	-	0.0	-	-	7/7	M

**Description:** Reference point position for G30.1.  
This setting data will be evaluated in CYCLE328.

43350	AA_OFF_LIMIT	-	S5,FBSY			
mm, degrees	Upper limit of offset value \$AA_OFF with clearance control	DOUBLE	PowerOn			
CTEQ						
-	-	100000000.0	0.0	1e15	7/7	M

**Description:** The upper limit of the offset value, which can be defined by means of synchronized actions via the variable \$AA\_OFF.  
This limit value acts on the absolutely effective amount of offset by means of \$AA\_OFF.  
It is used for clearance control in laser machining:  
The offset value is limited so that the laser head cannot get caught in the plate recesses.  
Whether the offset value lies within the limit range can be queried via system variable \$AA\_OFF\_LIMIT.

43400	WORKAREA_PLUS_ENABLE	-	A3			
-	Working area limitation active in positive direction	BOOLEAN	Immediately			
CTEQ						
-	-	FALSE	-	-	7/7	M

**Description:** 1: The working area limitation of the axis concerned is active in the positive direction.  
0: The working area limitation of the axis concerned is switched off in the positive direction.  
The setting data is parameterized via the operator panel in the operating area "Parameters" by activating/deactivating the working area limitation.  
SD irrelevant for .....  
G code: WALIMOF

43410	WORKAREA_MINUS_ENABLE	-	A3
-	Working area limitation active in the negative direction	BOOLEAN	Immediately
CTEQ			
-	-	FALSE	-
-	-	-	-
-	-	7/7	M

**Description:**

1: The working area limitation of the axis concerned is active in the negative direction.

0: The working area limitation of the axis concerned is switched off in the negative direction.

The setting data is parameterized via the operator panel in the operating area "Parameters" by activating/deactivating the working area limitation.

SD irrelevant for .....

G code: WALIMOF

43420	WORKAREA_LIMIT_PLUS	-	A3
mm, degrees	Working area limitation plus	DOUBLE	Immediately
-			
-	-	1.0e+8	-
-	-	-	-
-	-	7/7	M

**Description:**

The working area defined in the basic coordinate system in the positive direction of the axis concerned can be limited with axial working area limitation.

The setting data can be changed on the operator panel in the operating area "Parameters".

The positive working area limitation can be changed in the program with G26.

SD irrelevant for .....

G code: WALIMOF

Related to ....

SD43400 \$SA\_WORKAREA\_PLUS\_ENABLE

MD10709 \$MN\_PROG\_SD\_POWERON\_INIT\_TAB

MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB

43430	WORKAREA_LIMIT_MINUS	-	A3
mm, degrees	Working area limitation minus	DOUBLE	Immediately
-			
-	-	-1.0e+8	-
-	-	-	-
-	-	7/7	M

**Description:**

The working area defined in the basic coordinate system in the negative direction of the axis concerned can be limited with axial working area limitation.

The setting data can be changed on the operator panel in the operating area "Parameters".

The negative working area limitation can be changed in the program with G25.

SD irrelevant for .....

G code: WALIMOF

Related to ....

SD43410 \$SA\_WORKAREA\_MINUS\_ENABLE

MD10709 \$MN\_PROG\_SD\_POWERON\_INIT\_TAB

MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB

43500	FIXED_STOP_SWITCH	-	F1
-	Selection of travel to fixed stop	BYTE	Immediately
-			
-	-	0	0
-	-	1	7/7
			M

**Description:** The "Travel to fixed stop" function can be selected and deselected with this setting data.

SD=0 Deselect "Travel to fixed stop"

SD=1 Select "Travel to fixed stop"

The setting data can only be overwritten by the part program with the command FXS[x]=1/0 when software version 2.x is installed.

The status of the setting data is indicated on the operator panel in the "Parameters" area.

43510	FIXED_STOP_TORQUE	-	F1
%	Fixed stop clamping torque	DOUBLE	Immediately
-			
-	-	5.0	0.0
-	-	800.0	7/7
			M

**Description:** The clamping torque is entered in this setting data as a % of the maximum motor torque (corresponds to % of max. current value with FDD).

The setting data is active only if the fixed stop has been reached.

The fixed stop is considered reached when,

- with MD37060 \$MA\_FIXED\_STOP\_ACKN\_MASK, bit 1 = 0 (no acknowledgment required), the interface signal DB31, ... DBX62.5 (Fixed stop reached) is set by the NC
- with MD37060 \$MA\_FIXED\_STOP\_ACKN\_MASK, bit 1 = 1 (acknowledgment required), the interface signal DB31, ... DBX62.5 (Fixed stop reached) is set by the NC and acknowledged by interface signal DB31, ... DBX1.1 (Acknowledge fixed stop reached)

The status of the setting data is indicated on the operator panel in the "Parameters" area.

The FXST[x] command effects a block-synchronous change to this setting data. It can also be changed by the user or via the PLC. Otherwise the value is transferred from MD37010 \$MA\_FIXED\_STOP\_TORQUE\_DEF to the setting data when "Travel to fixed stop" is active.

Related to ...

MD37010 \$MA\_FIXED\_STOP\_TORQUE\_DEF (default setting for clamping torque)

43520	FIXED_STOP_WINDOW	-	F1
mm, degrees	Fixed stop monitoring window	DOUBLE	Immediately
-			
-	-	1.0	-
-	-	-	7/7
			M

**Description:** The fixed stop monitoring window is entered in this setting data.

The setting data is active only if the fixed stop has been reached.

The fixed stop is considered reached when,

- with MD37060 \$MA\_FIXED\_STOP\_ACKN\_MASK, bit 1 = 0 (no acknowledgment required) interface signal DB31, ... DBX62.5 (Fixed stop reached) is set by the NC
- with MD37060 \$MA\_FIXED\_STOP\_ACKN\_MASK, bit 1 = 1 (acknowledgment required) interface signal DB31, ... DBX62.5 (Fixed stop reached) is set by the NC and acknowledged by interface signal DB31, ... DBX1.1 (Acknowledge fixed stop reached)

## 1.4 NC setting data

If the position at which the fixed stop was detected leaves the tolerance band by more than the amount specified in SD43520 \$SA\_FIXED\_STOP\_WINDOW, then alarm 20093 "Fixed stop monitoring has responded" is output and the "FXS" function is deselected.

The status of the setting data is indicated on the operator panel in the "Parameters" area.

The FXSW[x] command effects a block-synchronous change to this setting data. It can also be changed by the user or via the PLC.

The value is otherwise transferred from MD37020 \$MA\_FIXED\_STOP\_WINDOW\_DEF to the setting data when "Travel to fixed stop" is active.

Related to ....

MD37020 \$MA\_FIXED\_STOP\_WINDOW\_DEF (default setting for fixed stop monitoring window)

43600	IPOBRAKE_BLOCK_EXCHANGE	A06, A10	K1
%	Block change criterion 'braking ramp'	DOUBLE	Immediately
-			
-	-	0.0	0
		100.0	7/7
			M

**Description:** Specifies the application time at single axis interpolation for the block change criterion braking ramp: At 100%, the block change criterion is fulfilled at the time of application of the braking ramp. At 0%, the block change criterion is identical with IPOENDA.

Note:

MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB can be set so that the value written by the part program is transferred into the active file system on reset (i.e. the value is retained even after reset).

43610	ADISPOSA_VALUE	A06, A10	P2
mm, degrees	Tolerance window 'braking ramp'	DOUBLE	Immediately
-			
-	-	0.0	-
			7/7
			M

**Description:** In case of single-axis interpolation, this value defines the size of the tolerance window which the axis must have reached in order to enable a block change in case of the block-change criterion 'braking ramp with tolerance window valid' and when reaching the corresponding % value of the braking ramp (SD43600 \$SA\_IPOBRAKE\_BLOCK\_EXCHANGE).

Note:

By means of the MD 10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB, the user can specify that the value written by the part program is transferred into the active file system in case of a reset (i.e. the value is retained even after the reset).

43700	OSCILL_REVERSE_POS1	-	P5
mm, degrees	Oscillation reversal point 1	DOUBLE	Immediately
-			
-	-	0.0	-
			7/7
			M

**Description:** Position of the oscillating axis at reversal point 1.

Note:

MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB can be set so that the value written by the part program is transferred to the active file system on reset (that is the value is retained after RESET.)

Application example(s)

NC language:       OSP1[Axis]=Position  
 Related to ....  
       SD43710 \$SA\_OSCILL\_REVERSE\_POS2  
       MD10709 \$MN\_PROG\_SD\_POWERON\_INIT\_TAB  
       MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB

43710	OSCILL_REVERSE_POS2	-	P5
mm, degrees	Oscillation reversal point 2	DOUBLE	Immediately
-			
-	-	0.0	-
			7/7
			M

**Description:**       Position of the oscillating axis at reversal point 2.

Note:

MD 10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB can be be set so that the value written by the part program is transferred to the active file system on reset (that is the value is retained after reset.)

Application example(s)

NC language:       OSP2[Axis]=Position

Related to ....

      SD43700 \$SA\_OSCILL\_REVERSE\_POS1  
       MD10709 \$MN\_PROG\_SD\_POWERON\_INIT\_TAB  
       MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB

43720	OSCILL_DWELL_TIME1	-	P5
s	Hold time at oscillation reversal point 1	DOUBLE	Immediately
-			
-	-	0.0	-
			7/7
			M

**Description:**       Hold time of the oscillating axis at reversal point 1.

Note:

MD 10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB can be be set so that the value written by the part program is transferred to the active file system on reset (that is the value is retained after reset.)

Application example(s)

NC language:       OST1[Axis]=Position

Related to ....

      SD43730 \$SA\_OSCILL\_DWELL\_TIME2  
       MD10709 \$MN\_PROG\_SD\_POWERON\_INIT\_TAB  
       MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB

43730	OSCILL_DWELL_TIME2	-	P5
s	Hold time at oscillation reversal point 2	DOUBLE	Immediately
-			
-	-	0.0	-
			7/7
			M

**Description:**       Hold time of the oscillating axis at reversal point 2.

Note:

MD 10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB can be be set so that the value written by the part program is transferred to the active file system on reset (that is the value is retained after reset.)

Application example(s)

NC language:       OST2[Axis]=Position

1.4 NC setting data

Related to ....

SD43720 \$SA\_OSCILL\_DWELL\_TIME1  
 MD10709 \$MN\_PROG\_SD\_POWERON\_INIT\_TAB  
 MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB

43740	OSCILL_VELO	-	P5
mm/min, rev/min	Feedrate of reciprocating axis	DOUBLE	Immediately
-			
-	-	0.0	-
			7/7 M

**Description:** Feed rate of the oscillating axis  
 Note:  
 MD 10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB can be be set so that the value written by the part program is transferred to the active file system on reset (that is the value is retained after reset.)  
 Application example(s)  
 NC language: FA[Axis]=F value  
 Related to ....  
 MD10709 \$MN\_PROG\_SD\_POWERON\_INIT\_TAB  
 MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB

43750	OSCILL_NUM_SPARK_CYCLES	-	P5
-	Number of spark-out strokes	DWORD	Immediately
-			
-	-	0	-
			7/7 M

**Description:** Number of sparking-out strokes performed after ending the oscillating movement  
 Application example(s)  
 NC language: OSNSC[Axis]=Stroke number  
 Note:  
 MD 10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB can be be set so that the value written by the part program is transferred to the active file system on reset (that is the value is retained after reset.)  
 Related to ....  
 MD10709 \$MN\_PROG\_SD\_POWERON\_INIT\_TAB  
 MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB

43760	OSCILL_END_POS	-	P5
mm, degrees	End position of the reciprocating axis	DOUBLE	Immediately
-			
-	-	0.0	-
			7/7 M

**Description:** Position the oscillating axis travels to after ending the sparking-out strokes.  
 Note:  
 MD 10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB can be be set so that the value written by the part program is transferred to the active file system on reset (that is the value is retained after reset.)  
 Application example(s)  
 NC language: OSE[Axis]=Position

Related to ....

MD10709 \$MN\_PROG\_SD\_POWERON\_INIT\_TAB

MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB

43770	OSCILL_CTRL_MASK	-	P5
-	Oscillation sequence control mask	DWORD	Immediately
-			
-		0	
-		-	-
-			7/7
-			M

**Description:**

Bit mask:

Bit no. | Meaning in OSCILL\_CTRL\_MASK

```

-----
--
0 (LSB) -1 | 0: Stop at the next reversal point if the
            | oscillating movement is switched off
            |
            | 1: Stop at reversal point 1 if the
            | oscillating movement is switched off
            | 2: Stop at reversal point 2 if the
            | oscillating movement is switched off
            | 3: Do not approach a reversal point when the oscillating move-
ment is switched off
            | if no sparking-out strokes are programmed
-----
--
2          | 1: Approach end position after sparking out
-----
--
3          | 1: If the oscillating movement is canceled by delete distance-
to-go,
            | then the sparking-out strokes are to be executed afterwards
            | and the end position approached if necessary
-----
--
4          | 1: If the oscillating movement is canceled by delete distance-
to-go,
            | then the corresponding reversal point
            | is approached on switch off
-----
--
5          | 1: Changed feedrate does not become active until the next
reversal point
-----
--
6          | 1: Path override is active if the feed rate is 0,
            | otherwise speed override is active
-----
--
7          | 1: In the case of rotary axes DC (shortest path)
-----
--

```

1.4 NC setting data

8 | 1: Execute sparking-out stroke as single stroke not as double stroke

-----  
--

9 | 1: On starting, first approach the starting position, see  
| SD43790 \$SA\_OSCILL\_START\_POS

-----  
--

Application example(s)

NC language: OSCTRL[Axis]=(setting options, reset options)

Related to ....

MD10709 \$MN\_PROG\_SD\_POWERON\_INIT\_TAB

MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB

43780	OSCILL_IS_ACTIVE	-	P5
-	Activate oscillation movement	BOOLEAN	Immediately
-			
-	FALSE	-	7/7 M

**Description:** Switching the oscillating movement on and off

Note:

MD 10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB can be set so that the value written by the part program is transferred to the active file system on reset (that is the value is retained after reset.)

Application example(s)

NC language: OS[Axis]=1, OS[Axis]=0

Related to ....

MD10709 \$MN\_PROG\_SD\_POWERON\_INIT\_TAB

MD10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB

43790	OSCILL_START_POS	-	-
mm, degrees	Start position of reciprocating axis	DOUBLE	Immediately
-			
-	0.0	-	7/7 M

**Description:** Position approached by the oscillating axis at the start of oscillation if this is set in SD43770 \$SA\_OSCILL\_CTRL\_MASK.

Note:

MD 10710 \$MN\_PROG\_SD\_RESET\_SAVE\_TAB can be set so that the value written by the part program is transferred to the active file system on reset (that is the value is retained after reset.)

43900	TEMP_COMP_ABS_VALUE	-	K3
-	Position-independent temperature compensation value	DOUBLE	Immediately
-			
-	0.0	-	7/7 M

**Description:** The position-independent temperature compensation value is defined by SD43900 \$SA\_TEMP\_COMP\_ABS\_VALUE.

The machine axis traverses this additional compensation value as soon as the position-independent temperature compensation has been activated (MD32750 \$MA\_TEMP\_COMP\_TYPE = 1 oder 3).

SD irrelevant for .....

MD32750 \$MA\_TEMP\_COMP\_TYPE = 0 or 2



Related to ....

MD32750 \$MA\_TEMP\_COMP\_TYPE                      Temperature compensation type  
 MD32760 \$MA\_COMP\_ADD\_VELO\_FACTOR      Velocity overshoot caused by compensation

43910	TEMP_COMP_SLOPE	-	K3
-	Lead angle for position-dependent temperature compensation	DOUBLE	Immediately
-			
-	-	0.0	-
-	-	-	7/7
-	-	-	M

**Description:**

In the case of position-dependent temperature compensation, the error curve characteristic of the temperature-dependent actual-value deviation can often be approximated by a straight line. This straight line is defined by a reference point P\_0 and a slope  $\tan\beta$ .

SD43910 \$SA\_TEMP\_COMP\_SLOPE defines the slope  $\tan\beta$ . This slope can be changed by the PLC user program as a function of the current temperature.

The axis traverses additionally the compensation value calculated for the current actual position as soon as the position-dependent temperature compensation becomes active (MD32750 \$MA\_TEMP\_COMP\_TYPE = 2 or 3).

MD32760 \$MA\_COMP\_ADD\_VELO\_FACTOR limits the maximum angle of slope  $\tan\beta_{\max}$  of the error curve. This maximum angle of slope cannot be exceeded.

SD irrelevant for .....

MD32750 \$MA\_TEMP\_COMP\_TYPE = 0 or 1

Special cases, errors, .....

When SD43910 \$SA\_TEMP\_COMP\_SLOPE is greater than  $\tan\beta_{\max}$ , the slope  $\tan\beta_{\max}$  is used to calculate the position-dependent temperature compensation value internally. No alarm is output.

Related to ....

MD32750 \$MA\_TEMP\_COMP\_TYPE                      Temperature compensation type  
 SD43920 \$SA\_TEMP\_COMP\_REF\_POSITION      Reference position for position-dependent temperature compensation  
 MD32760 \$MA\_COMP\_ADD\_VELO\_FACTOR      Velocity overshoot caused by compensation

43920	TEMP_COMP_REF_POSITION	-	K3
-	Ref. position of position-dependent temperature compensation	DOUBLE	Immediately
-			
-	-	0.0	-
-	-	-	7/7
-	-	-	M

**Description:**

In the case of position-dependent temperature compensation, the error curve characteristic of the temperature-dependent actual-value deviation can often be approximated by a straight line. This straight line is defined by a reference point P\_0 and a slope  $\tan\beta$ .

SD43920 \$SA\_TEMP\_COMP\_REF\_POSITION defines the position of the reference point P\_0. This reference position can be changed by the PLC user program as a function of the current temperature.

The axis traverses additionally the compensation value calculated for the current actual position as soon as the position-dependent temperature compensation becomes active (MD32750 \$MA\_TEMP\_COMP\_TYPE = 2 or 3).

SD irrelevant for .....

MD32750 \$MA\_TEMP\_COMP\_TYPE = 0 or 1

Related to ....

MD32750 \$MA\_TEMP\_COMP\_TYPE      Temperature compensation type  
 SD43910 \$SA\_TEMP\_COMP\_SLOPE      Angle of slope for position-dependent temperature compensation

## 1.5 Machine / setting data for SINUMERIK Operate and Cycles

Number	Identifier	Display filters	Reference			
Unit	Name	Data type	Active			
Attributes						
System	Dimension	Default value (LIN/ROT)	Minimum value (LIN/ROT)	Maximum value (LIN/ROT)	Protection	Class

**Description:** Description

51000	DISP_RES_MM	-	-			
-	Display resolution in mm	BYTE	PowerOn			
-						
-	-	3	0	6	7/3	M

**Description:** Display resolution in mm

51001	DISP_RES_MM_FEED_PER_REV	-	-			
-	Display resolution in mm feedrate/rev	BYTE	Immediately			
-						
-	-	3	0	6	7/3	M

**Description:** Display resolution in mm feedrate/rev

51002	DISP_RES_MM_FEED_PER_TIME	-	-			
-	Display resolution in mm feedrate/min	BYTE	Immediately			
-						
-	-	3	0	6	7/3	M

**Description:** Display resolution in mm feedrate/min

51003	DISP_RES_MM_FEED_PER_TOOTH	-	-			
-	Display resolution in mm feedrate/tooth	BYTE	Immediately			
-						
-	-	3	0	6	7/3	M

**Description:** Display resolution in mm feedrate/tooth

51004	DISP_RES_MM_CONST_CUT_RATE	-	-			
-	Display resolution constant cutting speed m/min	BYTE	Immediately			
-						
-	-	3	0	6	7/3	M

**Description:** Display resolution constant cutting speed m/min

51010	DISP_RES_INCH	-	-			
-	Display resolution in inch	BYTE	PowerOn			
-						
-	-	4	0	6	7/3	M

**Description:** Display resolution in inch

51011	DISP_RES_INCH_FEED_P_REV	-	-			
-	Display resolution in inch feedrate/rev	BYTE	Immediately			
-						
-	-	4	0	6	7/3	M

**Description:** Display resolution in inch feedrate/rev

51012	DISP_RES_INCH_FEED_P_TIME	-	-			
-	Display resolution in inch feedrate/min	BYTE	Immediately			
-						
-	-	4	0	6	7/3	M

**Description:** Display resolution in inch feedrate/min

51013	DISP_RES_INCH_FEED_P_TOOTH	-	-			
-	Display resolution in inch feedrate/tooth	BYTE	Immediately			
-						
-	-	4	0	6	7/3	M

**Description:** Display resolution in inch feedrate/tooth

51014	DISP_RES_INCH_CUT_RATE	-	-			
-	Display resolution constant cutting speed ft/min	BYTE	Immediately			
-						
-	-	4	0	6	7/3	M

**Description:** Display resolution constant cutting speed ft/min

51020	DISP_RES_ANGLE	-	-			
-	Display resolution of angle	BYTE	Immediately			
-						
-	-	3	0	6	7/3	M

**Description:** Display resolution of angle

51021	DISP_RES_SPINDLE	-	-			
-	Display resolution of spindles	BYTE	Immediately			
-						
-	-	0	0	6	7/3	M

**Description:** Decimal places in speed entry field

51022	DISP_RES_ROT_AX_FEED	-	-			
-	Display resolution of rotary axis feedrate	BYTE	Immediately			
-						
-	-	0	0	6	7/3	M

**Description:** Display resolution of rotary axis feedrate

51023	ACT_VALUE_SPIND_MODE	-	-			
-	Only display spindles in actual values window when in axis mode	BYTE	PowerOn			
-						
-	-	1	0	1	3/4	M

**Description:** This affects the display of the spindles in the axis actual values window. If the value is set to 1, only those spindles in axis mode are displayed, those in spindle mode are shown as gaps. If the value is set to 0, all spindles are displayed.

51024	BLOCK_SEARCH_MODE_MASK_JS	-	-			
-	Bit mask for available search modes (ShopMill, ShopTurn single-channel)	BYTE	PowerOn			
-						
-	-	1	-	-	4/3	M

**Description:** Bit mask for available search modes (ShopMill, ShopTurn single-channel)  
 Bit 0:Block search with calculation without approach  
 Bit 1:Block search with calculation with approach  
 Bit 2:reserved  
 Bit 3:Skip EXTCALL programs  
 Bit 4:reserved  
 Bit 5:Block search with test run

51025	FRAMES_ACT_IMMEDIATELY	-	-			
-	Activate active offset immediately	BYTE	PowerOn			
-						
-	-	1	0	1	4/3	M

**Description:** Active data (frames) are activated immediately after change

51026	AXES_SHOW_GEO_FIRST	-	-			
-	Actual value display with leading geometry axes	BYTE	PowerOn			
-						
-	-	1	0	1	4/3	M

**Description:** When the machine data value is 1, the geometry axes of the channel are displayed first.

51027	ONLY_MKS_DIST_TO_GO	-	-			
-	Distance-to-go display in work window	BYTE	PowerOn			
-						
-	-	0	0	1	4/3	M

**Description:** Distance-to-go display in work window

51028	BLOCK_SEARCH_MODE_MASK	-	-			
-	Bit mask for available block search modes	BYTE	PowerOn			
-						
-	-	51	-	-	4/3	M

**Description:** Bit mask for available search modes  
 Bit 0:Block search with calculation but no approach  
 Bit 1:Block search with calculation and approach  
 Bit 3:Skip EXTCALL programs

Bit 4:Block search without calculation

Bit 5:Block search with test run

51029	MAX_SKP_LEVEL	-	-			
-	Maximum number of skip levels in the NC program	BYTE	PowerOn			
-						
-	-	1	1	10	4/3	M

**Description:** The machine data defines how many skip levels are made available for operation.

51030	SPIND_MAX_POWER	-	-			
%	Maximum value of spindle power rating display	DWORD	PowerOn			
-						
-	-	100	0	255	4/3	M

**Description:** Maximum value of the permissible spindle power rating in percent; the display bar in the machine image is shown in green within the range between 0 and the value stored in SPIND\_MAX\_POWER.

51031	SPIND_POWER_RANGE	-	-			
%	Display range of spindle power rating display	DWORD	PowerOn			
-						
-	-	100	0	255	4/3	M

**Description:** Scale end value for spindle power rating in percent; value must be equal to or greater than SPIND\_MAX\_POWER.

The display bar in the machine image is shown in red in the range between the values of SPIND\_MAX\_POWER and SPIND\_POWER\_RANGE.

51032	STAT_DISPLAY_BASE	-	-			
-	Number basis for display of articulated joint STAT	BYTE	PowerOn			
-						
-	-	2	0	16	4/3	M

**Description:** Number basis for display of articulated joint STAT

00: no display

02: binary value display

10: decimal value display

16: hexadecimal value display

51033	TU_DISPLAY_BASE	-	-			
-	Number basis for display of rotary axis position TU	BYTE	PowerOn			
-						
-	-	2	0	16	4/3	M

**Description:** Number basis for display of rotary axis position TU

00: no display

02: binary value display

10: decimal value display

16: hexadecimal value display

51034	TEACH_MODE	-	-	-	-	-
-	Teach mode to be activated	DWORD	PowerOn	-	-	-
-	-	1	-	-	4/3	M

**Description:** Teach mode to be activated  
 Bit 0: default teach-in  
           Taught-in block is transferred to the program using the Accept softkey.  
 Bit 1: acceptance of teach block can be blocked by the PLC.  
           DB19.DBX13.0 = 0 block is accepted.  
           DB19.DBX13.0 = 1 block is not accepted.  
 Bit 2: block selection only explicitly  
 Bit 16-31 reserved for OEM.

51035	WRITE_FRAMES_FINE_LIMIT	-	-	-	-	-
-	Input limit for all WO fine	DOUBLE	PowerOn	-	-	-
-	-	0.999	-	-	4/3	M

**Description:** Input limit for all work offsets fine

51036	ENABLE_COORDINATE_REL	-	-	-	-	-
-	Enable REL coordinate system	BYTE	PowerOn	-	-	-
-	-	0	0	1	7/3	M

**Description:** Display REL coordinate system  
 0 = No relative coordinate system selectable  
 1 = REL coordinate system can be selected as an alternative to the work/SZS coordinate system

51037	ENABLE_COORDINATE_ACS	-	-	-	-	-
-	Enable settable coordinate system	BYTE	PowerOn	-	-	-
-	-	0	0	1	7/3	M

**Description:** Activate settable coordinate system  
 0 = WCS coordinate system is displayed  
 1 = SZS coordinate system is displayed  
       (SZS is WCS reduced by the offset components defined in MD24030)

51038	SET_ACT_VALUE	-	-	-	-	-
-	Set actual value selection	BYTE	PowerOn	-	-	-
-	-	1	0	1	7/3	M

**Description:** Set actual value selection  
 0 = Set actual value is not offered.  
 1 = if a user frame (settable work offset e.g. G54) is active, it will be used. In G500 Set actual values is not offered (system frame is no longer used).

51039	PROGRAM_CONTROL_MODE_MASK	-	-			
-	Options for machine - program influence	DWORD	PowerOn			
-						
-	-	1	-	-	7/3	M

**Description:** Options for machine - program influence:  
Bit 0: program test function available

51040	SWITCH_TO_MACHINE_MASK	-	-			
-	Automatic operating area switchover to machine	BYTE	PowerOn			
-						
-	-	0	-	-	7/3	M

**Description:** Automatic area switchover dependent upon machine  
Bit 0: No automatic switch to Machine operating area when the program is selected in the Program Manager.  
Bit 1: No automatic switch to Machine operating area when the operating mode is changed over via the machine control panel (MCP).  
Bit 2: No automatic switch to Machine operating area when the program is selected in the Programs operating area.  
Bit 3: No automatic start of block search when the program is selected / executed in the Programs operating area.

51041	ENABLE_PROGLIST_USER	-	-			
-	Activation of PLC program list, USER area	BYTE	Immediately			
-						
-	-	0	0	1	7/3	M

**Description:** Activates the PLC program list of the USER area. The programs entered there can be selected by the PLC for processing.

51042	ENABLE_PROGLIST_INDIVIDUAL	-	-			
-	Activation of PLC program list, INDIVIDUAL area	BYTE	Immediately			
-						
-	-	0	0	1	7/3	M

**Description:** Activates the PLC program list of the INDIVIDUAL area. The programs entered here can be selected by the PLC for processing.

51043	ENABLE_PROGLIST_MANUFACT	-	-			
-	Activation of PLC program list, MANUFACTURER area	BYTE	Immediately			
-						
-	-	0	0	1	7/3	M

**Description:** Activates the PLC program list of the MANUFACTURER area. The programs entered here can be selected by the PLC for processing.

51044	ACCESS_SHOW_SBL2	-	-			
-	Display protection level SBL2	BYTE	PowerOn			
-						
-	-	7	0	7	4/3	M

**Description:** Display protection level SBL2

51045	ACCESS_TEACH_IN	-	-			
-	Protection level TEACH IN	BYTE	PowerOn			
-						
-	-	4	0	7	4/3	M

**Description:** Protection level TEACH IN

51046	ACCESS_CLEAR_RPA	-	-			
-	Protection level delete R variables	BYTE	PowerOn			
-						
-	-	4	0	7	4/3	M

**Description:** Protection level delete R variables

51047	ACCESS_READ_GUD_LUD	-	-			
-	Read user variable protection level	BYTE	PowerOn			
-						
-	-	7	0	7	4/3	M

**Description:** Read user variable protection level

51048	ACCESS_WRITE_GUD_LUD	-	-			
-	Write protection level of user variables	BYTE	PowerOn			
-						
-	-	7	0	7	4/3	M

**Description:** Write protection level of user variables

51049	ACCESS_WRITE_PRG_COND	-	-			
-	Write program control protection level	BYTE	PowerOn			
-						
-	-	7	0	7	4/3	M

**Description:** Write program control protection level

51050	ACCESS_WRITE_PROGRAM	-	-			
-	Write part program protection level	BYTE	PowerOn			
-						
-	-	4	0	7	4/3	M

**Description:** Write part program protection level

51051	ACCESS_WRITE_RPA	-	-			
-	Protection level write R variables	BYTE	PowerOn			
-						
-	-	7	0	7	4/3	M

**Description:** Protection level write R variables

51052	ACCESS_WRITE_SEA	-	-			
-	Protection level write setting data	BYTE	PowerOn			
-						
-	-	7	0	7	4/3	M

**Description:** Protection level write setting data



51053	ACCESS_WRITE_BASEFRAME	-	-
-	Write basic work offset protection level	BYTE	PowerOn
-			
-	-	7	0
		7	4/3
			M

**Description:** Write basic work offset (basic frame) protection level

51054	ACCESS_WRITE_CYCFRAME	-	-
-	Write cycle frame protection level	BYTE	PowerOn
-			
-	-	7	0
		7	4/3
			M

**Description:** Write cycle frame protection level

51055	ACCESS_WRITE_EXTFRAME	-	-
-	Write external WO protection level	BYTE	PowerOn
-			
-	-	7	0
		7	4/3
			M

**Description:** Write external work offset protection level

51056	ACCESS_WRITE_PARTFRAME	-	-
-	Write table reference protection level	BYTE	PowerOn
-			
-	-	7	0
		7	4/3
			M

**Description:** Write table reference protection level

51057	ACCESS_WRITE_SETFRAME	-	-
-	Write basic reference protection level	BYTE	PowerOn
-			
-	-	7	0
		7	4/3
			M

**Description:** Write basic reference protection level

51058	ACCESS_WRITE_TOOLFRAME	-	-
-	Write basic tool reference protection level	BYTE	PowerOn
-			
-	-	7	0
		7	4/3
			M

**Description:** Write basic tool reference protection level

51059	ACCESS_WRITE_TRAFRAME	-	-
-	Write transformation frame protec. level	BYTE	PowerOn
-			
-	-	7	0
		7	4/3
			M

**Description:** Write transformation frame protec. level

51060	ACCESS_WRITE_USERFRAME	-	-
-	Write settable work offset protection level	BYTE	PowerOn
-			
-	-	4	0
		7	4/3
			M

**Description:** Write settable work offset (G54 ... G599) protection level

51061	ACCESS_WRITE_WPFRAME	-	-			
-	Write workpiece reference protection level	BYTE	PowerOn			
-						
-	-	7	0	7	4/3	M

**Description:** Write workpiece reference protection level

51062	ACCESS_WRITE_FINE	-	-			
-	Write protection level for fine offset of all work offsets	BYTE	PowerOn			
-						
-	-	6	0	7	4/3	M

**Description:** Write protection level for fine offset of all work offsets

51063	ACCESS_SET_ACT_VALUE	-	-			
-	Set actual value protection level	BYTE	PowerOn			
-						
-	-	4	0	7	4/3	M

**Description:** Set actual value protection level

51064	ACCESS_WRITE_PROGLIST	-	-			
-	Write protection level of program list in USER area	BYTE	Immediately			
-						
-	-	4	0	7	4/3	M

**Description:** Minimum protection level required to change the program list in the USER area (program manager)

51065	NUM_DISPLAYED_CHANNELS	-	-			
-	Number of channels displayed simultaneously	BYTE	PowerOn			
-						
-	-	1	1	4	4/3	M

**Description:** Setting of the number of channels to be displayed simultaneously in the machine operating area and in the multi-channel editor.

51066	ORDER_DISPLAYED_CHANNELS	-	-			
-	Channel numbers of the channels displayed	STRING	PowerOn			
-						
-	-	1;	-	-	4/3	M

**Description:** Contains the numbers of the channels to be displayed under machine in the multi-channel view, in the desired order and separated by commas, semicolons or spaces.

51067	ENABLE_HANDWHEEL_WINDOW	-	-			
-	Show handwheel window	BYTE	PowerOn			
-						
-	-	1	0	1	4/2	M

**Description:** If the machine data is set to 0, the window for handwheel assignment is hidden

## 1.5 Machine / setting data for SINUMERIK Operate and Cycles

51068	SPIND_DRIVELOAD_FROM_PLC1	-	-			
-	Machine axis index of spindle 1 utilization display from PLC	BYTE	PowerOn			
-						
-	-	0	0	31	4/2	M

**Description:** Machine axis index of a spindle (analog), which refers to the data for the utilization display in the T,F,S window from the PLC (DB19.DBB6).

51069	SPIND_DRIVELOAD_FROM_PLC2	-	-			
-	Machine axis index of spindle 2 utilization display from PLC	BYTE	PowerOn			
-						
-	-	0	0	31	4/2	M

**Description:** Machine axis index of a spindle (analog), which refers to the data for the utilization display in the T,F,S window from the PLC (DB19.DBB7).

51070	ACCESS_CAL_TOOL_PROBE	-	-			
-	Protection level for calibration of the tool probe (ShopTurn)	BYTE	PowerOn			
-						
-	-	4	0	7	4/3	M

**Description:** Protection level for calibration of the tool probe (ShopTurn)

51071	ACCESS_ACTIVATE_CTRL_E	-	-			
-	Protection level of Ctrl-Energy	BYTE	PowerOn			
-						
-	-	1	0	7	4/3	M

**Description:** Protection level for activating, disabling and enabling energy saving profiles.

51072	ACCESS_EDIT_CTRL_E	-	-			
-	Protection level of Ctrl-Energy for changing profiles	BYTE	PowerOn			
-						
-	-	2	0	7	4/3	M

**Description:** Protection level of Ctrl-Energy: Definition of energy saving profiles

51073	ACCESS_SET_SOFTKEY_ACCESS	-	-			
-	Protection level of "Adapt softkeys"	BYTE	PowerOn			
-						
-	-	3	0	7	4/3	M

**Description:** Protection level for the softkey "Adapt softkeys", which is used to change the access levels of other softkeys.

51160	ACCESS_WRITE_CA_MACH_JOG	-	-			
-	Write protection level collision monitoring machine jog	BYTE	PowerOn			
-						
-	-	6	0	7	7/1	M

**Description:** This machine data defines the protection level from which the machine/machine collision monitoring can be activated or deactivated under jog.

51161	ACCESS_WRITE_CA_MACH_AUTO	-	-			
-	Write protection level, collision monitoring machine automatic	BYTE	PowerOn			
-						
-	-	3	0	7	7/1	M

**Description:** This machine data defines the protection level from which the machine/machine collision monitoring can be activated or deactivated under automatic.

51162	ACCESS_WRITE_CA_TOOL	-	-			
-	Write protection level collision monitoring tool	BYTE	PowerOn			
-						
-	-	1	0	7	7/4	M

**Description:** This machine data defines the protection level from which the collision monitoring for tools can be activated or deactivated.

51198	ACCESS_READ_TM_ALL_PARAM	-	-			
-	Protection level tool management details - read all parameters	BYTE	PowerOn			
-						
-	-	1	0	7	7/4	M

**Description:** Protection level tool management details - read all parameters

51199	ACCESS_WRITE_TM_GRIND	-	-			
-	Protection level of tool management for writing grinding data	BYTE	PowerOn			
-						
-	-	4	0	7	7/4	M

**Description:** Protection level of tool management for writing grinding data

51200	ACCESS_WRITE_TM_GEO	-	-			
-	Write tool offset geometry data protection level	BYTE	PowerOn			
-						
-	-	5	0	7	7/4	M

**Description:** Write tool offset geometry data protection level

51201	ACCESS_WRITE_TM_WEAR	-	-			
-	Write tool offset wear data protection level	BYTE	PowerOn			
-						
-	-	6	0	7	7/4	M

**Description:** Write tool offset wear data protection level

51202	ACCESS_WRITE_TM_WEAR_DELTA	-	-			
-	Protection level for tool offset restricted writing of wear data	BYTE	PowerOn			
-						
-	-	7	0	7	7/4	M

**Description:** Protection level for restricted writing of tool wear values  
S. MD 54213: TM\_WRITE\_DELTA\_LIMIT

51203	ACCESS_WRITE_TM_SC	-	-			
-	Write tool offset sum offset protection level	BYTE	PowerOn			
-						
-	-	7	0	7	7/4	M

**Description:** Write tool offset sum offset protection level

51204	ACCESS_WRITE_TM_EC	-	-			
-	Write tool offset use offsets protection level	BYTE	PowerOn			
-						
-	-	7	0	7	7/4	M

**Description:** Write tool offset use offsets protection level

51205	ACCESS_WRITE_TM_SUPVIS	-	-			
-	Write tool offset monitoring data protection level	BYTE	PowerOn			
-						
-	-	7	0	7	7/4	M

**Description:** Write tool offset monitoring data protection level  
One authorization applies to all limit values: quantity, service life, wear and the monitoring type.

51206	ACCESS_WRITE_TM_ASSDNO	-	-			
-	Write tool offset unique D number protection level	BYTE	PowerOn			
-						
-	-	7	0	7	7/4	M

**Description:** Write tool offset unique D number protection level

51207	ACCESS_WRITE_TM_WGROUP	-	-			
-	Write tool offset wear groups protection level	BYTE	PowerOn			
-						
-	-	7	0	7	7/4	M

**Description:** Write tool offset wear groups (magazine location / magazine) protection level

51208	ACCESS_WRITE_TM_ADAPT	-	-			
-	Write tool offset adapter data protection level	BYTE	PowerOn			
-						
-	-	7	0	7	7/4	M

**Description:** Write tool offset tool adapter geometry data protection level

51209	ACCESS_WRITE_TM_NAME	-	-			
-	Write tool offset tool name protection level	BYTE	PowerOn			
-						
-	-	4	0	7	7/4	M

**Description:** Write tool offset tool name and duplo data protection level

51210	ACCESS_WRITE_TM_TYPE	-	-			
-	Write tool offset tool type protection level	BYTE	PowerOn			
-						
-	-	4	0	7	7/4	M

**Description:** Write tool offset tool type protection level

51211	ACCESS_READ_TM	-	-			
-	Read tool offset data protection level	BYTE	PowerOn			
-						
-	-	7	0	7	7/4	M

**Description:** Read tool offset data protection level

51212	TM_WRITE_WEAR_ABS_LIMIT	-	-			
mm	Maximum tool wear value	DOUBLE	PowerOn			
-						
-	-	0.999	0	10	7/4	M

**Description:** With TM\_WRITE\_WEAR\_ABS\_LIMIT, the max. possible value of a tool wear is limited absolutely, independently of the current protection level (keyswitch position), i.e. also independently of ACCESS\_WRITE\_TM\_WEAR. Absolute and incremental wear limitation can be combined, i.e. the wear can be changed incrementally up to the absolute limit. S. MD 51213.

51213	TM_WRITE_WEAR_DELTA_LIMIT	-	-			
mm	Maximum difference value restricted tool wear input	DOUBLE	PowerOn			
-						
-	-	0	0	10	7/4	M

**Description:** When entering tool offsets, the value of the change from the previous value to the new value cannot exceed the value set here.

With TM\_WRITE\_WEAR\_DELTA\_LIMIT, the change to a tool wear can be limited incrementally, if the current protection level is the same as or higher than the one set in ACCESS\_WRITE\_TM\_WEAR\_DELTA. With the current protection level being the same or higher than ACCESS\_WRITE\_TM\_WEAR, an incremental limitation is no longer performed. Absolute and incremental wear limitation can be combined, i.e. the wear can be changed up to the absolute limit. S. MD 51212

51214	TM_WRITE_LIMIT_MASK	-	-			
-	Validity of the restricted tool wear input	BYTE	PowerOn			
-						
-	-	7	0	7	7/4	M

**Description:** Validity of the restricted tool wear input

Bit 0:use for cutting edge data, wear

Bit 1:use for SC data, sum offsets

Bit 2:use for EC data, use offsets

Bit 0+1+2:use for all data, wear, SC, EC

51215	ACCESS_WRITE_TM_ALL_PARAM	-	-			
-	Protection level TM details - write all parameters	BYTE	PowerOn			
-						
-	-	1	0	7	7/4	M

**Description:** Protection level TM details - write all parameters

51216	ACCESS_TM_TOOL_CREATE	-	-			
-	Protection level TM create tool	BYTE	PowerOn			
-						
-	-	4	0	7	7/4	M

**Description:** Protection level TM create tool

51217	ACCESS_TM_TOOL_DELETE	-	-			
-	Protection level TM delete tool	BYTE	PowerOn			
-						
-	-	4	0	7	7/4	M

**Description:** Protection level TM delete tool

51218	ACCESS_TM_TOOL_LOAD	-	-			
-	Protection level TM load tool	BYTE	PowerOn			
-						
-	-	4	0	7	7/4	M

**Description:** Protection level TM load tool

51219	ACCESS_TM_TOOL_UNLOAD	-	-			
-	Protection level TM unload tool	BYTE	PowerOn			
-						
-	-	4	0	7	7/4	M

**Description:** Protection level TM unload tool

51220	ACCESS_TM_TOOL_MOVE	-	-			
-	Protection level TM relocate tool	BYTE	PowerOn			
-						
-	-	4	0	7	7/4	M

**Description:** Protection level TM relocate tool

51221	ACCESS_TM_TOOL_REACTIVATE	-	-			
-	Protection level TM reactivate tool	BYTE	PowerOn			
-						
-	-	4	0	7	7/4	M

**Description:** Protection level TM reactivate tool

51222	ACCESS_TM_TOOL_MEASURE	-	-			
-	Protection level TM measure tool	BYTE	PowerOn			
-						
-	-	4	0	7	7/4	M

**Description:** Protection level TM measure tool  
Direct jump from tool list to measuring screen

51223	ACCESS_TM_TOOLEEDGE_CREATE	-	-			
-	Protection level TM create tool cutting edge	BYTE	PowerOn			
-						
-	-	4	0	7	7/4	M

**Description:** Protection level TM create tool cutting edge

51224	ACCESS_TM_TOOLEDGE_DELETE	-	-			
-	Protection level TM delete tool cutting edge	BYTE	PowerOn			
-						
-	-	4	0	7	7/4	M

**Description:** Protection level TM delete tool cutting edge

51225	ACCESS_TM_MAGAZINE_POS	-	-			
-	Protection level TM position magazine	BYTE	PowerOn			
-						
-	-	4	0	7	7/4	M

**Description:** Protection level TM position magazine

51226	FUNCTION_MASK_SIM	-	-			
-	Function mask Simulation	DWORD	PowerOn			
-						
-	-	0	-	-	7/3	M

**Description:** Function mask Simulation  
 Bit 0: No automatic start on simulation selection  
 Bit 1: Deactivate simulation  
 Bit 6: Enable handwheel as simulation override (values from DB19.DBW400)  
 Bit 7: Interpretation of handwheel values from DB19.DBW400)

51228	FUNCTION_MASK_TECH	-	-			
-	Function mask Cross-technology	DWORD	PowerOn			
-						
-	-	0	-	-	7/3	M

**Description:** Function mask, all technologies  
 Bit 0: G code programming without multi-channel data  
 If bit 0 = 1, no multi-channel data will be offered for job lists which only contain G code programs.  
 Bit 1: Enable print function of Editor

51230	ENABLE_LADDER_DB_ADDRESSES	-	-			
-	DB address activation in the PLC ladder viewer	BOOLEAN	Immediately			
-						
-	-	1	0	1	7/2	M

**Description:** DB address activation in the PLC ladder viewer

51231	ENABLE_LADDER_EDITOR	-	-			
-	PLC ladder editor activation	BOOLEAN	Immediately			
-						
-	-	1	0	1	7/2	M

**Description:** PLC ladder editor activation

51233	ENABLE_GSM_MODEM	-	-			
-	GSM modem activation for Easy Message	BOOLEAN	PowerOn			
-						
-	-	0	0	1	7/2	M

**Description:** GSM modem activation for Easy Message



51235	ACCESS_RESET_SERV_PLANNER	-	-			
-	Protection level for acknowledgement of maintenance tasks	BYTE	Immediately			
-						
-	-	3	0	7	4/2	M

**Description:** Protection level for acknowledgement of maintenance tasks

51600	MEA_CAL_WP_NUM	-	-			
-	Number of calibration data fields for workpiece probes	BYTE	Immediately			
-						
-	-	12	0	12	7/2	M

**Description:** The workpiece probe calibration data refer to the workpiece coordinate system (Work) !  
In the data fields, the workpiece probe calibration data of the technologies Milling and Turning are stored!

51601	MEA_CAL_EDGE_NUM	-	-			
-	Number of geometry data fields of gauging block, workpiece probe	BYTE	Immediately			
-						
-	-	3	0	3	7/2	M

**Description:** The gauging block is exclusively used to calibrate the workpiece probe of the Turning technology!

51602	MEA_CAL_TP_NUM	-	-			
-	Number of calibration data fields for tool probes	BYTE	Immediately			
-						
-	-	6	0	6	7/2	M

**Description:** The value of this parameter corresponds to the number of tool probe calibration data records set up for the machine coordinate system (Machine).

51603	MEA_CAL_TPW_NUM	-	-			
-	Number of calibration data fields for tool probes	BYTE	Immediately			
-						
-	-	6	0	6	7/2	M

**Description:** The value of this parameter corresponds to the number of tool probe calibration data records set up for the workpiece coordinate system (Work).

51618	MEA_CM_ROT_AX_POS_TOL	-	-			
degrees	Tolerance of rotary axis positions - measuring with orientable toolholder	DOUBLE	Immediately			
-						
-	-	0.5	-1	1	7/3	M

**Description:** Parameter for measuring with orientable tool carrier  
Entries in parameter \$MN\_MEA\_CM\_ROT\_AX\_POS\_TOL are effective only if \$MNS\_MEA\_FUNCTION\_MASK bit2 or bit16 is set by MD 51740.  
The real angle position of the rotary axes can deviate from the programmed one (exact stop fine window).

This deviation depends on the position control features of the axis. The maximum deviation expected on the concrete axis must be entered in this parameter. When the tolerance is exceeded, alarm 61442 "Toolholder not in parallel with the geometry axes" is displayed.

51740	MEA_FUNCTION_MASK	-	-			
-	Function mask for measuring cycles	DWORD	Immediately			
-						
-	-	11	-	-	7/3	M

**Description:**

Function screen form for measuring cycles

Bit 0: Activation of the calibration status monitoring of workpiece measurement for measurements in automatic mode

- 0: Calibration monitoring not active
- 1: Calibration monitoring active

The status of the following states is monitored between calibration and measurement:

- Working plane (G17, 18, 19)
- Probe type (mono probe, multi probe)
- Longitudinal reference of the probe (center of probe ball, circumference of probe ball)
- Programmed velocity of probe

These monitoring functions are always active with "Measurement in JOG" and cannot be deactivated.

Bit 1: Length relationship of the workpiece probe, milling technology

- 0: Tool length L1, in relation to the center of the probe ball
- 1: Tool length L1, in relation to the circumference of the probe ball

Bit 2: Support of orientable tool carriers during workpiece measurement with tool offset

- 0: No support of orientable tool carriers.
- 1: Support of a probe or tool positioned by an orientable tool carrier (kinematic type "T") with reference to the specific carrier positions 0°, 90°, 180° and 270°.

Bit 3: Correction of the position of the mono probe during workpiece measurement

- 0: No correction
- 1: If the workpiece probe is a mono probe, the alignment of its switching direction (spindle position) is corrected by the angle value in `_CORA`.

Bit 4: The workpiece probe is fixed to the machine, and cannot be positioned

- 0: The workpiece probe is in a main spindle
- 1: The workpiece probe is permanently fixed to the machine and cannot be positioned around its axis.

Not all measurement versions are available. If an impermissible measurement version is selected when the cycle is run, alarm 61373 Probe is not SPOS capable is output.

Bit 15: Workpiece measurement, measuring block is traversed with path behavior G60 exact stop at the end of block

- 0: The measuring block is traversed in the path control mode G64.

1: The measuring block is traversed with path behavior G60 exact stop at the end of block.

Bit16: Support of orientable tool carriers during tool measurement turning

0: No support of orientable tool carriers.

1: Support of a tool positioned by an orientable tool carrier (kinematic type "T")

51750	J_MEA_M_DIST	-	-			
mm	Measuring path for measuring with ShopMill, in automatic mode	DOUBLE	Immediately			
-						
-	-	5	-10000	10000	7/5	M

**Description:** This parameter defines the measuring path in front of and behind the measuring setpoint.

51751	J_MEA_M_DIST_MANUELL	-	-			
mm	Measuring path, for "Measure in JOG"	DOUBLE	Immediately			
-						
-	-	10	-10000	10000	7/5	M

**Description:** This parameter defines the measuring path in front of and behind the measuring setpoint.

51752	J_MEA_M_DIST_TOOL_LENGTH	-	-			
mm	Measuring path for tool length measuring, for "Measure in JOG"	DOUBLE	Immediately			
-						
-	-	2	-10000	10000	7/5	M

**Description:** This parameter defines the measuring path in front of and behind the measuring setpoint.

51753	J_MEA_M_DIST_TOOL_RADIUS	-	-			
mm	Measuring path for tool radius measuring, for "Measure in JOG"	DOUBLE	Immediately			
-						
-	-	1	-10000	10000	7/5	M

**Description:** This parameter defines the measuring path in front of and behind the measuring setpoint.

51757	J_MEA_COLL_MONIT_FEED	-	-			
mm/min	Feedrate in the plane w. active collision detection, for "Measure in JOG"	DOUBLE	Immediately			
-						
-	-	1000	0	100000	7/5	M

**Description:** Feedrate in the working plane w. active collision detection

51758	J_MEA_COLL_MONIT_POS_FEED	-	-			
mm/min	Infeed rate with active collision detection, for "Measure in JOG"	DOUBLE	Immediately			
-						
-	-	1000	0	100000	7/5	M

**Description:** Feedrate of the infeed axis with active collision detection, for "Measure in JOG".

51770	J_MEA_CAL_RING_DIAM	-	-
mm	Calibration ring diameter, for "Measure in JOG"	DOUBLE	Immediately
-			
-	12	-1, -1, -1, -1, -1, -1, -1, -1 -1...	10000 7/5 M

**Description:** Calibration ring diameter, for probe sphere calibration in the plane, for "Measure in JOG"

51772	J_MEA_CAL_HEIGHT_FEEDAX	-	-
mm	Calibration height in the infeed axis, for probe length calibration	DOUBLE	Immediately
-			
-	12	-99999, -99999, - 99999, -99999, - 99999...	-100000 100000 7/5 M

**Description:** Calibration height in the infeed axis for probe length calibration, for "Measure in JOG"

The calibration height must be entered with reference to the the workpiece coordinate system (Work)!

51780	J_MEA_T_PROBE_DIAM_RAD	-	-
mm	Diameter of the tool probe for radius measurement, for "Measure in JOG"	DOUBLE	Immediately
-			
-	6	0, 0, 0, 0, 0, 0	0 10000 7/5 M

**Description:** Effective grinding wheel diameter of the tool probe for radius measurement on milling tools, for "Measure in JOG"

51784	J_MEA_T_PROBE_APPR_AX_DIR	-	-
-	Approach direction in the plane on the tool probe, for "Measure in JOG"	DWORD	Immediately
-			
-	6	-1, -1, -1, -1, -1, -1	-2 2 7/5 M

**Description:** Approach direction in the plane on the tool probe, for "Measure in JOG"

- = -2 negative direction 2nd measuring axis
- = -1 negative direction 1st measuring axis
- = 0 or 1 positive direction 1st measuring axis
- = 2 psoitive direction 2nd measuring axis

51786	J_MEA_T_PROBE_MEASURE_DIST	-	-
mm	Measur. path for tool measur. w. stationary spindle, for "Measure in JOG"	DOUBLE	Immediately
-			
-	-	10	-10000 10000 7/5 M

**Description:** Measuring path for tool probe calibration and tool measuring with stationary spindle, in front of and behind the expected switching position.

52000	DISP_COORDINATE_SYSTEM	-	-			
-	Coordinate system position	BYTE	PowerOn			
-						
-	-	0	0	47	7/3	M

**Description:**

With this MD you adapt the operator panel of the coordinate system to the machine's coordinate system. Depending on the selected position, all help screens, the sequence graphic, the simulation and the input fields with the circular direction specified will change automatically.

Also note MD 52210 \$MCS\_FUNCTION\_MASK\_DISP, bit 1.

52005	DISP_PLANE_MILL	-	-			
-	Plane selection Milling	BYTE	Immediately			
-						
-	-	0	0	19	7/3	M

**Description:**

Plane selection Milling

0: plane selection on the operator panel

17: always G17

18: always G18

19: always G19

52006	DISP_PLANE_TURN	-	-			
-	Plane selection Turning	BYTE	Immediately			
-						
-	-	18	0	19	7/0	M

**Description:**

Plane selection Turning

0: plane selection on the operator panel

17: always G17

18: always G18

19: always G19

52010	DISP_NUM_AXIS_BIG_FONT	-	-			
-	Number of actual values with large font	BYTE	PowerOn			
-						
-	-	3	0	31	7/3	M

**Description:**

Number of actual values with large font

52011	ADJUST_NUM_AXIS_BIG_FONT	-	-			
-	Adapt number of act val w large font dynamically to no. of geometry axes	BYTE	PowerOn			
-						
-	-	0	0	2	7/3	M

**Description:**

Adapt the number of actual values with large font if the number of geometry axes changes, e.g. due to transformations like TRANSMIT or TRACYL.

0 = Only MD 52010 "DISP\_NUM\_AXIS\_BIG\_FONT" is valid. The number is assigned as a fixed value.

1 = Only the geometry axes are displayed in large font. MD 52010 "DISP\_NUM\_AXIS\_BIG\_FONT" is ignored.

2 = The number of geometry axes plus the content of MD 52010 "DISP\_NUM\_AXIS\_BIG\_FONT" are displayed in large font.

52200	TECHNOLOGY	-	-			
-	Technology	BYTE	PowerOn			
-						
-	-	0	0	2	7/1	M

**Description:** Technology  
 0: no specific configuration  
 1: turning  
 2: milling  
 Also note MD 52201 \$MCS\_TECHNOLOGY\_EXTENSION.

52201	TECHNOLOGY_EXTENSION	-	-			
-	Extended technology	BYTE	PowerOn			
-						
-	-	0	0	2	7/1	M

**Description:** Extended technology  
 0: no specific configuration  
 1: turning  
 2: milling  
 Also note MD 52200 \$MCS\_TECHNOLOGY.  
 Example:  
 Turning machine with milling technology  
 MD 52200 \$MCS\_TECHNOLOGY = 1  
 MD 52201 \$MCS\_TECHNOLOGY\_EXTENSION = 2

52206	AXIS_USAGE	-	-			
-	Meaning of the axes in the channel	BYTE	PowerOn			
-						
-	20	0, 0	-	-	7/3	M

**Description:** Meaning of the axes in the channel  
 0 = no special meaning  
 1 = tool spindle (driven tool)  
 2 = auxiliary spindle (driven tool)  
 3 = main spindle (turning)  
 4 = separate C axis of the main spindle (turning)  
 5 = counterspindle (turning)  
 6 = separate C axis of the counterspindle (turning)  
 7 = linear axis of the counterspindle (turning)  
 8 = tailstock (turning)  
 9 = steady rest (turning)  
 10 = B axis (turning)  
 11 = reserved  
 12 = B axis of the counterspindle (turning)  
 13 = Transverse travel X of the counterspindle (turning)

52207	AXIS_USAGE_ATTRIB		-	-		
-	Axis attributes		DWORD	PowerOn		
-						
-	20	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0	-	-	7/3	M

**Description:** Axis attributes

Bit 0: Rotates around 1st geometry axis (in the case of rotary axes)

Bit 1: Rotates around 2nd geometry axis (in the case of rotary axes)

Bit 2: Rotates around 3rd geometry axis (in the case of rotary axes)

Bit 3: Positive direction of rotation is counterclockwise (in the case of rotary axes. Rotary axes are always viewed in the negative geometry axis direction. In the case of lathes, a spindle is always viewed from the inside.

Bit 4: Displayed direction of rotation for M3 is counterclockwise (in the case of spindles). The viewing direction can be selected. Either viewed outward from the inside or from the outside toward the spindle.

However, the same selection must be made for all spindles.

Bit 5: Direction of rotation M3 corresponds to minus rotary axis (in the case of spindles)

This bit must be set in the same way as PLC bit DBnn.DBX17.6!  
(nn = 31 + machine axis index)

Bit 6: Display rotary axis as offset target for measuring

Bit 7: Offer rotary axis in position pattern

Bit 8: Offer rotation axis to accept blank (milling machines)

Bit 9: Spindle is not SPOS-capable

52210	FUNCTION_MASK_DISP		-	-		
-	Function mask Display		DWORD	PowerOn		
-						
-	-	3	-	-	7/3	M

**Description:** Function mask display

Bit 0: Measuring system for programs always in basic system

Bit 1: Front view for turning in school coordinate system

Bit 2: Hide "T,S,M" softkey in JOG area

Bit 3: Generate automatic end-of-program in MDI (with the "Delete blocks" softkey)

Bit 4: Show follow-on tool in T, F, S windows

Bit 5: Hide "Actual MCS values" softkey

Bit 6: Hide tool radius/diameter in T, F, S windows

Bit 7: Hide tool lengths in T, F, S windows

Bit 8: Hide tool icon in T, F, S windows

52211	FUNCTION_MASK_DISP_ZOA		-	-		
-	Function screen for displaying overview of work offsets		DWORD	PowerOn		
-						
-	-	2097141	-	-	7/3	M

**Description:** Function screen for displaying overview of work offsets

Bit 0: Display Machine position

Bit 1: reserved

- Bit 2: Display DRF offset
- Bit 3: Display \$AA\_OFF position offset
- Bit 4: Display \$P\_PARTFRAME
- Bit 5: Display \$P\_SETFRAME
- Bit 6: Display \$P\_EXTSFRAME
- Bit 7: Display \$P\_ISO1FRAME
- Bit 8: Display \$P\_ISO2FRAME
- Bit 9: Display \$P\_ISO3FRAME
- Bit 10: Display \$P\_ACTBFRAME
- Bit 11: Display \$P\_IFFRAME
- Bit 12: Display \$P\_TOOLFRAME
- Bit 13: Display \$P\_WPFRAME
- Bit 14: Display \$P\_TRAFRAME
- Bit 15: Display \$P\_PFRAME
- Bit 16: Display \$P\_ISO4FRAME
- Bit 17: Display \$P\_CYCFRAME
- Bit 18: Display sum of work offsets
- Bit 19: Display offset of active tool
- Bit 20: Display Work position

52212	FUNCTION_MASK_Tech	-	-			
-	Function mask Cross-technology	DWORD	Immediately			
-						
-	-	0	-	-	7/3	M

**Description:** Function mask, all technologies

- Bit 0: Enable swivel
- Bit 1: No optimized travel along software limit switches
- Bit 2: Startup logic for step drill (ShopTurn)
- Bit 3: Call block search cycle for ShopMill/ShopTurn
- Bit 4: Startup logic via cycle (ShopTurn)
- Bit 5: Call block search cycle for SERUPRO
- Bit 6: Work offset ZV cannot be entered as an absolute value (ShopTurn)
- Bit 7: Detect expiry of tool lives in the program (ShopMill/ShopTurn)
- Bit 8: Manual machine (ShopMill/ShopTurn)
- Bit 9: Selection/deselection of work offset via softkey
- Bit 10: Reserved
- Bit 11: Switch off layer check for drilling and milling tools (ShopTurn)

52214	FUNCTION_MASK_MILL	-	-			
-	Function mask Milling	DWORD	Immediately			
-						
-	-	0	-	-	7/3	M

**Description:** Function screen form Milling

- Bit 0: Enable cylinder surface transformation (ShopMill)
- Bit 1: Offer table for accepting blank (at milling machines)  
(This bit must only be set, if, at the machine table, there is a rotation axis and a fixed table to accept the blank.)
- Bit 2: Reserved
- Bit 3: Enable inside/rear machining



- Bit 4: Enable spindle clamping (C axis)  
 Bit 5: Enable spindle control tool spindle via user interface  
 Bit 6: Enable spindle control of turning spindle via user interface

52216	FUNCTION_MASK_DRILL	-	-			
-	Function mask Drilling	DWORD	Immediately			
-						
-	-	0	-	-	7/3	M

**Description:** Function screen form, drilling  
 Bit 0: CYCLE84 Show input fields, Technology  
 Bit 1: CYCLE840 Show input fields, Technology  
 Bit 2: Thread tapping also without encoder (ShopMill)

52218	FUNCTION_MASK_TURN	-	-			
-	Function mask Turning	DWORD	Immediately			
-						
-	-	0	-	-	7/3	M

**Description:** Function mask Turning  
 Bit 0: Enable zoom under manual for tool measurement  
 Bit 1: Enable parts gripper for cut-off  
 Bit 2: Enable tailstock  
 Bit 3: Enable spindle control of main spindle via user interface  
 Bit 4: Enable spindle control of counterspindle via user interface  
 Bit 5: Enable spindle control of tool spindle via user interface  
 Bit 6: Enable balance cutting for dual-channel stock removal  
 Bit 7: Retraction during stock removal along contour with G1  
 Bit 8: Enter spindle chuck data in program  
 Bit 9: Additional entry of tailstock data in program  
 Bit 12: Deactivate thread synchronization  
     0: Thread synchronization is possible  
     1: Deactivate thread synchronization function  
     The operator screen form to set the synchronization points is not displayed, and in the thread cycles, the thread cut is not calculated with the synchronization point.  
 Bit 13: Stock removal along the contour with CYCLE95 (828D programGUIDE without Advanced Technology)  
 When the bit is set, the screen form for CYCLE95 is opened with the Contour turning/stock removal softkey.  
 Secondary conditions:  
 - 828D  
 - programGUIDE  
 - without the Advanced Technology option

52229	ENABLE_QUICK_M_CODES	-	-			
-	Enable fast M functions	BYTE	Immediately			
-						
-	-	0	-	-	7/3	M

**Description:** Enable fast M functions  
 Bit 0: Coolant OFF

Bit 1: Coolant 1 ON  
 Bit 2: Coolant 2 ON  
 Bit 3: Coolant 1 and 2 ON

52230	M_CODE_ALL_COOLANTS_OFF	-	-			
-	M code for all coolants OFF	DWORD	Immediately			
-						
-	-	9	0	32767	7/3	M

**Description:** M code for all coolants OFF

52231	M_CODE_COOLANT_1_ON	-	-			
-	M code for coolant 1 ON	DWORD	Immediately			
-						
-	-	8	0	32767	7/3	M

**Description:** M code for coolant 1 ON

52232	M_CODE_COOLANT_2_ON	-	-			
-	M code for coolant 2 ON	DWORD	Immediately			
-						
-	-	7	0	32767	7/3	M

**Description:** M code for coolant 2 ON

52233	M_CODE_COOLANT_1_AND_2_ON	-	-			
-	M code for both coolants ON	DWORD	Immediately			
-						
-	-	-1	-1	32767	7/3	M

**Description:** M code for coolant 1 + 2 ON

52240	NAME_TOOL_CHANGE_PROG	-	-			
-	Tool change program for G code steps	STRING	Immediately			
-						
-	-		-	-	7/3	M

**Description:** Tool change program for G code steps

52244	SUB_SPINDLE_PARK_POS_Y	-	-			
mm	Parking position of the Y axis with counterspindle	DOUBLE	Immediately			
-						
-	-	0	-	-	7/3	M

**Description:** Parking position of the Y axis with counterspindle

52248	REV_2_BORDER_TOOL_LENGTH	-	-			
mm	Limit value tool length X for 2nd turret	DOUBLE	Immediately			
-						
-	-	0	-	-	7/3	M

**Description:** Limit value of tool length X for the 2nd turret:  
 Limit value = 0: only one turret available  
 Tool length X < limit value: tool belongs to 1st turret/multifix  
 Tool length X >= limit value: tool belongs to 2nd turret/multifix

52250	M_CODE_CHUCK_OPEN	-	-			
-	M code for Open chuck with non-rotating spindle	STRING	Immediately			
-						
-	2	-	-	-	7/3	M

**Description:** M code for Open chuck with non-rotating spindle.  
 Example: "M34" or "M1=34"  
 Elements:  
   [0]: Main spindle  
   [1]: Counterspindle

52251	M_CODE_CHUCK_OPEN_ROT	-	-			
-	M code for Open chuck with rotating spindle	STRING	Immediately			
-						
-	2	-	-	-	7/3	M

**Description:** M code for Open chuck with rotating spindle.  
 Example: "M34" or "M1=34"  
 Elements:  
   [0]: Main spindle  
   [1]: Counterspindle

52252	M_CODE_CHUCK_CLOSE	-	-			
-	M code for Close chuck	STRING	Immediately			
-						
-	2	-	-	-	7/3	M

**Description:** M code for Close chuck  
 Example: "M34" or "M1=34"  
 Elements:  
   [0]: Main spindle  
   [1]: Counterspindle

52253	M_CODE_TAILSTOCK_FORWARD	-	-			
-	M code for quill forward	STRING	Immediately			
-						
-	2	-	-	-	7/3	M

**Description:** M code for quill forward.  
 E.g.: "M55" or "M1=55"  
 Elements:  
   [0]: Quill opposite main spindle  
   [1]: Quill opposite counterspindle

52254	M_CODE_TAILSTOCK_BACKWARD	-	-			
-	M code for quill backward	STRING	Immediately			
-						
-	2	-	-	-	7/3	M

**Description:** M code for quill backward.  
 E.g.: "M54" or "M1=54"

Elements:

- [0]: Quill opposite main spindle
- [1]: Quill opposite counterspindle

52260	MACHINE_JOG_INTERRUPT_PRIO	-	-			
-	Priority for start ASUB under machine JOG	BYTE	Immediately			
-						
-	-	1	1	8	7/3	M

**Description:** Priority for start ASUB under machine JOG

52270	TM_FUNCTION_MASK	-	-			
-	Function mask Tool management	DWORD	PowerOn			
-						
-	-	0	-	-	7/3	M

**Description:** Function mask for tool management

- Bit 0:Create tool on magazine location not allowed. Tools can only be created outside the magazine.
- Bit 1:Load/unload disable if machine is not in reset. Tools can only be loaded/unloaded if the appropriate channel is in reset state.
- Bit 2:Load/unload disable on emergency stop.Tools can only be loaded/unloaded if emergency stop is not active.
- Bit 3:Load/unload or relocating tool to/from spindle is disabled. Tools cannot be loaded to or unloaded or relocated from the spindle.
- Bit 4:Loading is executed directly in the spindle. Tools are loaded exclusively directly in the spindle.
- Bit 5:Use grinding configuration file for creating the tool lists. Only grinding tools are offered.
- Bit 6:Relocating a tool to/from the spindle is permitted despite a block (see Bit3).
- Bit 7:Create tool using the tool number. Specify the tool's T number when creating the tool.
- Bit 8:Hide Relocate tool. The function 'Relocate tool' is hidden on the user interface.
- Bit 9:Hide Position magazine. The function 'Position magazine' is hidden on the user interface.
- Bit 10:Reactivate tool using Position magazine. Prior to reactivation, the tool is positioned on the loading position.
- Bit 11:Reactivate tool in all monitoring modes. When reactivating a tool, all monitoring modes enabled in the NC are reactivated for this tool, even the monitoring modes, which have not been set for the relevant tool, but are available in the background only.
- Bit 12:Hide Reactivate tool. The function 'Reactivate tool' is hidden on the user interface.

52271	TM_MAG_PLACE_DISTANCE	-	-			
mm	Distance betw. indiv. magazine locations	DOUBLE	PowerOn			
-						
-	-	70	0	10000	7/3	M

**Description:** Distance between individual magazine locations.  
Is used for graphical display of magazine and tools in tool management.

52272	TM_TOOL_LOAD_DEFAULT_MAG	-	-			
-	Default magazine for tool loading	BYTE	PowerOn			
-						
-	-	0	0	30	7/3	M

**Description:** Default magazine for tool loading  
0 = no default magazine

52273	TM_TOOL_MOVE_DEFAULT_MAG	-	-			
-	Default magazine for tool relocation	BYTE	PowerOn			
-						
-	-	0	0	30	7/3	M

**Description:** Default magazine for tool relocation  
0 = no default magazine

52274	TM_TOOL_LOAD_STATION	-	-			
-	Number of load station	BYTE	PowerOn			
-						
-	-	0	0	16	7/3	M

**Description:** Number of the loading station  
0 = All configured stations are taken into account

52281	TOOL_MCODE_FUNC_ON	-	-			
-	M code for tool-specific function ON	DWORD	Immediately			
-						
-	4	-1, -1, -1, -1	-1	32767	7/3	M

**Description:** M code for tool-specific function ON  
Value -1 means that the M function is not output. If both M commands of a function equal -1, the corresponding field will not be displayed in the user interface

52282	TOOL_MCODE_FUNC_OFF	-	-			
-	M code for tool-specific function OFF	DWORD	Immediately			
-						
-	4	-1, -1, -1, -1	-1	32767	7/3	M

**Description:** M code for tool-specific function OFF  
Value -1 means that the M function is not output. If both M commands of a function equal -1, the corresponding field will not be displayed in the user interface.

52290	SIM_DISPLAY_CONFIG	-	-			
-	Location of status display of the channel in the simulation (OP019 only)	BYTE	Immediately			
-						
-	-	0x0F	-	-	7/3	M

**Description:** Location of status display of the channel in the simulation  
Only one of the 4 corners can be selected:  
Bit 0 = Top left corner  
Bit 1 = Top right corner  
Bit 2 = Bottom left corner

Bit 3 = Bottom right corner  
This MD is active only on the OP019.

52740	MEA_FUNCTION_MASK	-	-			
-	Function mask for measuring cycles	DWORD	Immediately			
-						
-	-	65536	-	-	7/3	M

**Description:** Function mask for measuring cycles

Bit 0: Measurement input workpiece probe

- 0: Workpiece probe at CNC measurement input 1, active - default
- 1: Workpiece probe at CNC measurement input 2, active

Bit 1: Workpiece measurement. Functional behavior of a third geometry axis (Y axis) in turning technology on the basis of the working plane G18.

- 0: An existing third geometry axis (Y axis, applicate) is not supported by the measuring cycles.
- 1: Setpoint input and parameterization (SETVAL, \_TUL, \_TLL, SZO) relate to the third geometry axis (Y axis).

However, the tool length or work offset is offset in the active components in the second geometry axis (X axis, ordinate) (that means measure in Y and offset in X). The offset target can be influenced with parameter \_KNUM.

Bit 14: reserved

Bit 15: reserved

Bit 16: Measurement input tool probe

- 0: Tool probe at CNC measurement input 1, active
- 1: Tool probe at CNC measurement input 2, active - default

52750	J_MEA_FIXPOINT	-	-			
mm	Z value for measuring fixed point	DOUBLE	Immediately			
-						
-	-	0	-	-	7/3	M

**Description:** Z value for measuring against fixed point

52751	J_MEA_MAGN_GLAS_POS	-	-			
mm	Zoom-in position for tool measurement	DOUBLE	Immediately			
-						
-	2	0	-	-	7/3	M

**Description:** Zoom-in position for tool measurement

- [0] = Position in the 1st axis
- [1] = Position in the 2nd axis

52800	ISO_M_ENABLE_POLAR_COORD	-	-			
-	Polar coordinates	BYTE	Immediately			
-						
-	-	0	0	1	7/3	M

**Description:** Polar coordinates

- 0: OFF
- 1: ON

52802	ISO_ENABLE_INTERRUPTS	-	-			
-	Interrupt process	BYTE	Immediately			
-						
-	-	0	0	1	7/3	M

**Description:** Interrupt process  
 0: OFF  
 1: ON

52804	ISO_ENABLE_DRYRUN	-	-			
-	Machining skipped at DRYRUN	BYTE	Immediately			
-						
-	-	0	0	1	7/3	M

**Description:** Maching skipped during tapping G74/G84 at DRYRUN  
 0: OFF  
 1: ON

52806	ISO_SCALING_SYSTEM	-	-			
-	Basic system	BYTE	Immediately			
-						
-	-	0	0	2	7/7	M

**Description:** Basic system:  
 0: not defined  
 1: METRIC  
 2: INCH

52808	ISO_SIMULTAN_AXES_START	-	-			
-	Simultaneous approach to the boring position on all programmed axes	BYTE	Immediately			
-						
-	-	0	0	1	7/3	M

**Description:** Simultaneous approach to the boring position on all programmed axes  
 0: OFF  
 1: ON

52810	ISO_T_DEEPHOLE_DRILL_MODE	-	-			
-	Deep hole drilling with chipbreaking/stock removal	BYTE	Immediately			
-						
-	-	0	0	1	7/3	M

**Description:** Select the type of deep hole drilling  
 0: deep hole drilling with chipbreaking  
 1: deep hole drilling with stock removal

53220	AXIS_MCS_POSITION	-	-			
mm	Position of axis in the Machine	DOUBLE	Immediately			
-						
-	3	0	-	-	7/3	M

**Description:** Position of axis in the Machine:  
 The 3 field elements specify the position in X, Y, Z.

For linear axes, the value corresponds to the zero point of the axis in the Machine.

For rotary axes, the position of the rotary axis is defined in the Machine.

53230	SIM_START_POSITION	-	-			
mm, degrees	Axis position at start of simulation	DOUBLE	Immediately			
-						
-	-	0	-	-	7/3	M

**Description:** Axis position at start of simulation  
Simulation is only possible if a value not equal to 0 has been set for at least one geometry axis.

53240	SPINDLE_PARAMETER	-	-			
mm	Spindle chuck data	DOUBLE	Immediately			
-						
-	3	0	-	-	7/7	M

**Description:** Spindle chuck data:  
[0]: Chuck dimension  
[1]: Stop dimension  
[2]: Jaw dimension

53241	SPINDLE_CHUCK_TYPE	-	-			
-	Spindle jaw type	BYTE	Immediately			
-						
-	-	0	-	-	7/7	M

**Description:** Spindle jaw type:  
0 = Clamping from outside  
1 = Clamping from inside

53242	TAILSTOCK_PARAMETER	-	-			
mm	Tailstock data	DOUBLE	Immediately			
-						
-	2	0	-	-	7/7	M

**Description:** Tailstock data:  
[0]: Tailstock diameter  
[1]: Tailstock length

53250	CLAMPING_TOLERANCE	-	-			
mm, degrees	Permissible tolerance when an axis jams	DOUBLE	Immediately			
-						
-	-	0.1	0	10	7/3	M

**Description:** Permissible tolerance when an axis jams.  
When jamming, an axis can be pushed somewhat out of its position.  
With this machine data you define up to which tolerance level the axis does not have to be repositioned.



54215	TM_FUNCTION_MASK_SET	-	-			
-	Function mask Tool management	DWORD	PowerOn			
-						
-	-	0	-	-	7/4	M

**Description:**

Function mask, tool management

Bit 0:Diameter display for rotary tools. It is not the radius value but the diameter that is displayed for rotary tools.

Bit 1:Default direction of rotation for all turning tools is M4. Direction of rotation M4 is assigned by default when turning tools are created.

Bit 2:Create tool without suggesting name.

Bit 3:Input disable for tool name and tool type in the case of loaded tools. Once tools have been loaded, the tool name and the tool type cannot be changed.

Bit 4:Input disable for loaded tools unless the channel is not in reset.

Bit 5:Accrue tool wear entries additively. Tool wear data entries are added to the existing wear value.

Bit 6:Entry of tool ID in numerical format. The tool ID may only be entered using numbers.

Bit 7:Hide tool monitoring parameters. The tool monitoring parameters are hidden on the user interface.

Bit 8:Diameter display for transverse axis geometry. The geometry value for the transverse axis is displayed as the diameter value.

Bit 9:Diameter display for transverse axis wear. The wear value for the transverse axis is displayed as the diameter value.

Bit 10:Enable loading / relocation of tool in buffer locations. The magazine number can be entered in the load dialog box. The magazine number 9998 is then used to access the buffer location.

Bit 11:Creation of new tools in gripper locations is disabled.

Bit 12:Measuring tools are not are not unloaded when the "Unload all" function is executed.

54600	MEA_WP_BALL_DIAM	-	-			
mm	Effective diameter of the probe sphere for the workpiece probe	DOUBLE	Immediately			
-						
-	12	0, 0, 0, 0, 0, 0, 0, 0...	0	10000	7/7	M

**Description:**

Effective sphere diameter of the probe sphere for the workpiece probe.

The value of this parameter is created by the operation "Calibrate workpiece probe"!

54601	MEA_WP_TRIG_MINUS_DIR_AX1	-	-			
mm	Trigger point of the 1st measuring axis in negative direction	DOUBLE	Immediately			
-						
-	12	0, 0, 0, 0, 0, 0, 0, 0...	-100000	100000	7/7	M

**Description:**

Trigger point of the 1st measuring axis (abscissa) in negative traversing direction (X at G17) of the workpiece probe.

The term "negative traversing direction" refers to the currently active workpiece zero point reference!

The value of this parameter is created by the operation "Calibrate workpiece probe"!

54602	MEA_WP_TRIG_PLUS_DIR_AX1	-	-
mm	Trigger point of the 1st measuring axis in positive direction	DOUBLE	Immediately
-			
-	12	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** Trigger point of the 1st measuring axis (abscissa) in positive traversing direction (X at G17) of the workpiece probe.  
The term "positive traversing direction" refers to the currently active workpiece zero point reference!  
The value of this parameter is created by the operation "Calibrate workpiece probe"!

54603	MEA_WP_TRIG_MINUS_DIR_AX2	-	-
mm	Trigger point of the 2nd measuring axis in negative direction	DOUBLE	Immediately
-			
-	12	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** Trigger point of the 2nd measuring axis (ordinate) in negative traversing direction (Y at G17) of the workpiece probe.  
The term "negative traversing direction" refers to the currently active workpiece zero point reference!  
The value of this parameter is created by the operation "Calibrate workpiece probe"!

54604	MEA_WP_TRIG_PLUS_DIR_AX2	-	-
mm	Trigger point of the 2nd measuring axis in positive direction	DOUBLE	Immediately
-			
-	12	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** Trigger point of the 2nd measuring axis (ordinate) in positive traversing direction (Y at G17) of the workpiece probe.  
The term "positive traversing direction" refers to the currently active workpiece zero point reference!  
The value of this parameter is created by the operation "Calibrate workpiece probe"!

54605	MEA_WP_TRIG_MINUS_DIR_AX3	-	-
mm	Trigger point of the 3rd measuring axis in negative direction	DOUBLE	Immediately
-			
-	12	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** Trigger point of the 3rd measuring axis (applicator) in negative traversing direction (Z at G17) of the workpiece probe.  
The term "negative traversing direction" refers to the currently active workpiece zero point reference!  
The value of this parameter is created by the operation "Calibrate workpiece probe"!

54606	MEA_WP_TRIG_PLUS_DIR_AX3	-	-
mm	Trigger point of the 3rd measuring axis in positive direction	DOUBLE	Immediately
-			
-	12	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** Trigger point of the 3rd measuring axis (applicator) in positive traversing direction (Z at G17) of the workpiece probe.

The term "positive traversing direction" refers to the currently active workpiece zero point reference!

The value of this parameter is created by the operation "Calibrate workpiece probe"!

54607	MEA_WP_POS_DEV_AX1	-	-
mm	Position deviation of the probe sphere in the 1st measuring axis	DOUBLE	Immediately
-			
-	12	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** The position deviation in the 1st measuring axis represents a geometrical offset of the center point of the probe sphere related to the electrical center point of the probe in this axis!  
The value of this parameter is created by the operation "Calibrate workpiece probe"!

54608	MEA_WP_POS_DEV_AX2	-	-
mm	Position deviation of the probe sphere in the 2nd measuring axis	DOUBLE	Immediately
-			
-	12	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** The position deviation in the 2nd measuring axis represents a geometrical offset of the center point of the probe sphere related to the electrical center point of the probe in this axis!  
The value of this parameter is created by the operation "Calibrate workpiece probe"!

54609	MEA_WP_STATUS_RT	-	-
-	Calibration status axis positions	DOUBLE	Immediately
-			
-	12	0, 0, 0, 0, 0, 0, 0, 0...	- - 7/7 M

**Description:** Calibration status of the axis positions reserved for internal use!  
The value of this parameter is created by the operation "Calibrate workpiece probe"!

54610	MEA_WP_STATUS_GEN	-	-
-	Calibration status in general	DOUBLE	Immediately
-			
-	12	0, 0, 0, 0, 0, 0, 0, 0...	- - 7/7 M

**Description:** Calibration status in general reserved for internal use!  
The value of this parameter is created by the operation "Calibrate workpiece probe"!

54611	MEA_WP_FEED	-	-
mm/min	Measuring feed for calibration	DOUBLE	Immediately
-			
-	12	0, 0, 0, 0, 0, 0, 0, 0...	0 5000 7/7 M

**Description:** Measure workpiece measuring feed for calibration  
This measuring feed is used for all subsequent workpiece measuring programs in conjunction with the probe field.

54615	MEA_CAL_EDGE_BASE_AX1	-	-
mm	Calibration groove base of the 1st measuring axis	DOUBLE	Immediately
-			
-	3	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** Calibration groove base of the 1st measuring axis (abscissa, Z at G18)  
This parameter is a geometrical component of the calibration groove and must be supplied by the user!

54617	MEA_CAL_EDGE_PLUS_DIR_AX1	-	-
mm	Calibration groove edge in positive direction of the 1st measuring axis	DOUBLE	Immediately
-			
-	3	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** Calibration groove edge in positive direction of the 1st measuring axis (abscissa, Z at G18)  
This parameter is a geometrical component of the calibration groove and must be supplied by the user!

54618	MEA_CAL_EDGE_MINUS_DIR_AX1	-	-
mm	Calibration groove edge in negative direction of the 1st measuring axis	DOUBLE	Immediately
-			
-	3	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** Calibration groove edge in negative direction of the 1st measuring axis (abscissa, Z at G18)  
This parameter is a geometrical component of the calibration groove and must be supplied by the user!

54619	MEA_CAL_EDGE_BASE_AX2	-	-
mm	Calibration groove base of the 2nd measuring axis	DOUBLE	Immediately
-			
-	3	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** Calibration groove base of the 2nd measuring axis (ordinate, X at G18)  
This parameter is a geometrical component of the calibration groove and must be supplied by the user!

54620	MEA_CAL_EDGE_UPPER_AX2	-	-
mm	Calibration groove upper edge of the 2nd measuring axis	DOUBLE	Immediately
-			
-	3	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** Calibration groove upper edge of the 2nd measuring axis (ordinate, X at G18)  
This parameter is a geometrical component of the calibration groove and must be supplied by the user!

54621	MEA_CAL_EDGE_PLUS_DIR_AX2	-	-
mm	Calibration groove edge in positive direction of the 2nd measuring axis	DOUBLE	Immediately
-			
-	3	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** Calibration groove edge in positive direction of the 2nd measuring axis (ordinate, X at G18)  
This parameter is a geometrical component of the calibration groove and must be supplied by the user!

54622	MEA_CAL_EDGE_MINUS_DIR_AX2	-	-
mm	Calibration groove edge in negative direction of the 2nd measuring axis	DOUBLE	Immediately
-			
-	3	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** Calibration groove edge in negative direction of the 2nd measuring axis (ordinate, X at G18)  
This parameter is a geometrical component of the calibration groove and must be supplied by the user!

54625	MEA_TP_TRIG_MINUS_DIR_AX1	-	-
mm	Trigger point of the 1st measuring axis in negative direction	DOUBLE	Immediately
-			
-	6	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** Trigger point of the 1st measuring axis in negative direction (abscissa, X at G17, Z at G18)  
The trigger point refers to the machine coordinate system (Machine).  
Prior to calibration the approximate trigger point must be entered in the machine coordinate system!  
The exact value of this parameter is created by the operation "Calibrate workpiece probe"!

54626	MEA_TP_TRIG_PLUS_DIR_AX1	-	-
mm	Trigger point of the 1st measuring axis in positive direction	DOUBLE	Immediately
-			
-	6	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** Trigger point of the 1st measuring axis in positive direction (abscissa, X at G17, Z at G18)  
The trigger point refers to the machine coordinate system (Machine).  
Prior to calibration the approximate trigger point must be entered in the machine coordinate system!  
The exact value of this parameter is created by the operation "Calibrate workpiece probe"!

54627	MEA_TP_TRIG_MINUS_DIR_AX2	-	-
mm	Trigger point of the 2nd measuring axis in negative direction	DOUBLE	Immediately
-			
-	6	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** Trigger point of the 2nd measuring axis in negative direction (ordinate, Y at G17, X at G18)

The trigger point refers to the machine coordinate system (Machine).  
Prior to calibration the approximate trigger point must be entered in the machine coordinate system!

The exact value of this parameter is created by the operation "Calibrate workpiece probe"!

54628	MEA_TP_TRIG_PLUS_DIR_AX2	-	-			
mm	Trigger point of the 2nd measuring axis in positive direction	DOUBLE	Immediately			
-						
-	6	0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	-100000	100000	7/7	M

**Description:** Trigger point of the 2nd measuring axis in positive direction (ordinate, Y at G17, X at G18)

The trigger point refers to the machine coordinate system (Machine).  
Prior to calibration the approximate trigger point must be entered in the machine coordinate system!

The exact value of this parameter is created by the operation "Calibrate workpiece probe"!

54629	MEA_TP_TRIG_MINUS_DIR_AX3	-	-			
mm	Trigger point of the 3rd measuring axis in negative direction	DOUBLE	Immediately			
-						
-	6	0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	-100000	100000	7/7	M

**Description:** Trigger point of the 3rd measuring axis in negative direction (applicator, Z at G17, Y at G18)

The trigger point refers to the machine coordinate system (Machine).  
Prior to calibration the approximate trigger point must be entered in the machine coordinate system!

The exact value of this parameter is created by the operation "Calibrate workpiece probe"!

54630	MEA_TP_TRIG_PLUS_DIR_AX3	-	-			
mm	Trigger point of the 3rd measuring axis in positive direction	DOUBLE	Immediately			
-						
-	6	0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	-100000	100000	7/7	M

**Description:** Trigger point of the 3rd measuring axis in positive direction (ordinate, Y at G17, X at G18)

The trigger point refers to the machine coordinate system (Machine).  
Prior to calibration, the approximate trigger point must be entered in the machine coordinate system!

The exact value of this parameter is created by the operation "Calibrate tool probe"!

54631	MEA_TP_EDGE_DISK_SIZE	-	-			
mm	Tool probe edge length/wheel diameter	DOUBLE	Immediately			
-						
-	6	0, 0, 0, 0, 0, 0, 0, 0, 0, 0...	0	1000	7/7	M

**Description:** Effective edge length or grinding wheel diameter of the tool probe.  
This data is important for the "Milling" technology when measuring the length of milling tools.

54632	MEA_TP_AX_DIR_AUTO_CAL			-	-	
-	Automatic tool probe calibration, enable axes/directions			DWORD	Immediately	
-						
-	6	133, 133, 133, 133, 133, 133, 133, 133...	-	-	7/7	M

**Description:** Enabling axes and traversing directions for the "Automatic calibration" of milling tool probes in the machine coordinate system (Machine).  
The default setting refers in X and Y to the plus and minus directions respectively, in Z only to the minus direction.  
The parameter is divided into six components, the functions of which are assigned to calibration data records 1 to 6.  
Meaning of the parameter components  
Decimal position:  
Units                   1st geometry axis (X)  
Tens:                    2nd geometry axis (Y)  
Hundreds: 3rd geometry axis (Z)  
Value:  
=0: axis not enabled  
=1: only minus direction possible  
=2: only plus direction possible  
=3: both directions possible

54633	MEA_TP_TYPE			-	-	
-	Tool probe type cube / wheel			DOUBLE	Immediately	
-						
-	6	0, 0, 0, 0, 0, 0, 0, 0...	0	999	7/7	M

**Description:** Tool probe type  
0: cube  
101: wheel in XY, working plane G17  
201: wheel in ZX, working plane G18  
301: wheel in YZ, working plane G19

54634	MEA_TP_CAL_MEASURE_DEPTH			-	-	
mm	Distance between the upper tool probe edge and the lower milling tool edge			DOUBLE	Immediately	
-						
-	6	2, 2, 2, 2, 2, 2, 2, 2...	-1000	1000	7/7	M

**Description:** Distance between the upper tool probe edge and the lower milling tool edge.  
For tool probe calibration this distance defines the calibration depth and for milling tool measuring the measuring depth!  
This parameter does not apply to turning tool measuring!

54635	MEA_TP_STATUS_GEN			-	-	
-	Calibration status in general			DOUBLE	Immediately	
-						
-	6	0, 0, 0, 0, 0, 0	-	-	7/7	M

**Description:** Calibration status general, reserved for internal use  
The value of this parameter is assigned when the "Calibrate tool probe" procedure is executed.

54636	MEA_TP_FEED	-	-
mm/min	Measuring feed for tool probe calibration in the Machine	DOUBLE	Immediately
-			
-	6	0, 0, 0, 0, 0, 0, 0, 0...	0 5000 7/7 M

**Description:** Measuring feed for tool probe calibration in Machine  
This measuring feed is used for all subsequent tool measuring programs in conjunction with the probe field.

54640	MEA_TPW_TRIG_MINUS_DIR_AX1	-	-
mm	Trigger point of the 1st measuring axis in negative direction	DOUBLE	Immediately
-			
-	6	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** Trigger point of the 1st measuring axis in negative direction (abscissa, X at G17, Z at G18)  
The trigger point refers to the workpiece coordinate system (Work).  
Prior to calibration the approximate trigger point must be entered in the workpiece coordinate system!  
The exact value of this parameter is created by the operation "Calibrate tool probe"!

54641	MEA_TPW_TRIG_PLUS_DIR_AX1	-	-
mm	Trigger point of the 1st measuring axis in positive direction	DOUBLE	Immediately
-			
-	6	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** Trigger point of the 1st measuring axis in positive direction (abscissa, X at G17, Z at G18)  
The trigger point refers to the workpiece coordinate system (Work).  
Prior to calibration the approximate trigger point must be entered in the workpiece coordinate system!  
The exact value of this parameter is created by the operation "Calibrate tool probe"!

54642	MEA_TPW_TRIG_MINUS_DIR_AX2	-	-
mm	Trigger point of the 2nd measuring axis in negative direction	DOUBLE	Immediately
-			
-	6	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** Trigger point of the 2nd measuring axis in negative direction (ordinate, Y at G17, X at G18)  
The trigger point refers to the workpiece coordinate system (Work).  
Prior to calibration the approximate trigger point must be entered in the workpiece coordinate system!  
The exact value of this parameter is created by the operation "Calibrate tool probe"!

54643	MEA_TPW_TRIG_PLUS_DIR_AX2	-	-
mm	Trigger point of the 2nd measuring axis in positive direction	DOUBLE	Immediately
-			
-	6	0, 0, 0, 0, 0, 0, 0, 0...	-100000 100000 7/7 M

**Description:** Trigger point of the 2nd measuring axis in positive direction (ordinate, Y at G17, X at G18)



The trigger point refers to the workpiece coordinate system (Work).

Prior to calibration the approximate trigger point must be entered in the workpiece coordinate system!

The exact value of this parameter is created by the operation "Calibrate tool probe"!

54644	MEA_TPW_TRIG_MINUS_DIR_AX3	-	-			
mm	Trigger point of the 3rd measuring axis in negative direction	DOUBLE	Immediately			
-						
-	6	0, 0, 0, 0, 0, 0, 0, 0, 0...	-100000	100000	7/7	M

**Description:** Trigger point of the 3rd measuring axis in negative direction (applicator, Z at G17, Y at G18)

The trigger point refers to the workpiece coordinate system (Work).

Prior to calibration the approximate trigger point must be entered in the workpiece coordinate system!

The exact value of this parameter is created by the operation "Calibrate tool probe"!

54645	MEA_TPW_TRIG_PLUS_DIR_AX3	-	-			
mm	Trigger point of the 3rd measuring axis in positive direction	DOUBLE	Immediately			
-						
-	6	0, 0, 0, 0, 0, 0, 0, 0, 0...	-100000	100000	7/7	M

**Description:** Trigger point of the 3rd measuring axis in positive direction (applicator, Z at G17, Y at G18)

The trigger point refers to the workpiece coordinate system (Work).

Prior to calibration the approximate trigger point must be entered in the workpiece coordinate system!

The exact value of this parameter is created by the operation "Calibrate tool probe"!

54646	MEA_TPW_EDGE_DISK_SIZE	-	-			
mm	Tool probe edge length/wheel diameter	DOUBLE	Immediately			
-						
-	6	0, 0, 0, 0, 0, 0, 0, 0, 0...	0	1000	7/7	M

**Description:** Effective edge length or grinding wheel diameter of the tool probe. Milling tools are normally measured with wheel-shaped probes while turning tools are measured with square probes.

54647	MEA_TPW_AX_DIR_AUTO_CAL	-	-			
-	Automatic tool probe calibration, enable axes/directions	DWORD	Immediately			
-						
-	6	133, 133, 133, 133, 133, 133, 133, 133...	-	-	7/7	M

**Description:** Enabling axes and traversing directions for "Automatic calibration" in the workpiece coordinate system (Work) of milling tool probes. The default setting refers in X and Y to the plus and minus direction respectively, in Z only to the minus direction. The parameter is divided into six components, the functions of which are assigned to calibration data records 1 to 6. Meaning of the parameter components

Decimal position:  
 Units            1st geometry axis (X)  
 Tens:            2nd geometry axis (Y)  
 Hundreds: 3rd geometry axis (Z)  
 Value:  
 =0: axis not enabled  
 =1: only minus direction possible  
 =2: only plus direction possible  
 =3: both directions possible

54648	MEA_TPW_TYPE	-	-			
-	Tool probe type cube / wheel	DOUBLE	Immediately			
-						
-	6	0, 0, 0, 0, 0, 0, 0, 0...	-	-	7/7	M

**Description:**      Tool probe type  
 0:            cube  
 101: wheel in XY, working plane G17  
 201: wheel in ZX, working plane G18  
 301: wheel in YZ, working plane G19

54649	MEA_TPW_CAL_MEASURE_DEPTH	-	-			
mm	Distance between the upper tool probe edge and the lower milling tool edge	DOUBLE	Immediately			
-						
-	6	2, 2, 2, 2, 2, 2, 2, 2...	0	999	7/7	M

**Description:**      Distance between the upper tool probe edge and the lower milling tool edge.  
 For tool probe calibration this distance defines the calibration depth and for milling tool measuring the measuring depth!  
 This parameter does not apply to turning tool measuring!

54650	MEA_TPW_STATUS_GEN	-	-			
-	Calibration status in general	DOUBLE	Immediately			
-						
-	6	0, 0, 0, 0, 0, 0	-	-	7/7	M

**Description:**      Calibration status general, reserved for internal use  
 The value of this parameter is assigned when the "Calibrate tool probe" procedure is executed.

54651	MEA_TPW_FEED	-	-			
mm/min	Measuring feed for tool probe calibration in the Work	DOUBLE	Immediately			
-						
-	6	0, 0, 0, 0, 0, 0, 0, 0...	0	5000	7/7	M

**Description:**      Measuring feed for tool probe calibration in Work  
 This measuring feed is used for all subsequent tool measuring programs in conjunction with the probe field.

54652	MEA_INPUT_TOOL_PROBE_SUB	-	-
-	Tool probe available/active on the counterspindle	BYTE	Immediately
-			
-	6	0, 0, 0, 0, 0, 0	0
		11	7/2
			M

**Description:** CNC measurement input for tool probe with reference to the counterspindle  
`$_SNS_MEA_INPUT_TOOL_PROBE_SUB[[n]`  
 =0: Toolsetter no.= n+1, with reference to the main spindle,  
 CNC measurement input corresponds to the value of  
`$_MCS_MEA_FUNCTION_MASK`, bit16  
 (Input values 1 to 9 have the same functional effect as input 0!)  
 =10: Toolsetter no.= n+1, with reference to the counterspindle,  
 units digit =0 corresponds to CNC measurement input 1  
 =11: Toolsetter no.= n+1, with reference to the counterspindle,  
 units digit =1 corresponds to CNC measurement input 2

54670	MEA_CM_MAX_PERI_SPEED	-	-
m/min	Max. permissible peripheral speed of the tool to be measured	DOUBLE	Immediately
-			
-	2	100, 100	0
		100000	7/7
			M

**Description:** Max. permissible peripheral speed of the tool to be measured when the spindle rotates.  
 Monitoring parameter for tool measuring with rotating spindle

54671	MEA_CM_MAX_REVOLUTIONS	-	-
rev/min	Maximum tool speed for tool measuring	DOUBLE	Immediately
-			
-	2	1000, 1000	0
		100000	7/7
			M

**Description:** Max. permissible tool speed for tool measuring with rotating spindle.  
 The speed is automatically reduced when this value is exceeded.  
 Monitoring parameter for tool measuring with rotating spindle

54672	MEA_CM_MAX_FEEDRATE	-	-
mm/min	Maximum feed for contact of the tool with the probe	DOUBLE	Immediately
-			
-	2	20, 20	0
		100000	7/7
			M

**Description:** Max. permissible feed for contact of the tool to be measured with the probe when the spindle rotates.  
 Monitoring parameter for tool measuring with rotating spindle

54673	MEA_CM_MIN_FEEDRATE	-	-
mm/min	Minimum feed for 1st contact of the tool with the probe	DOUBLE	Immediately
-			
-	2	1, 1	0
		100000	7/7
			M

**Description:** Min. feed for first contact of the tool to be measured with the probe when the spindle rotates.  
 Too small feeds for large tool radii are thus avoided!  
 Monitoring parameter for tool measuring with rotating spindle

54674	MEA_CM_SPIND_ROT_DIR	-	-			
-	Direction of spindle rotation for tool measuring	DOUBLE	Immediately			
-						
-	2	4, 4	3	4	7/7	M

**Description:** Direction of spindle rotation for tool measuring with rotating spindle (default: 4 = M4)  
 Notice: if the spindle is already rotating when the measuring cycle is called, the direction of rotation is maintained independently of \$SNS\_MEA\_CM\_SPIND\_ROT\_DIR!  
 Monitoring parameter for tool measuring with rotating spindle

54675	MEA_CM_FEEDFACTOR_1	-	-			
-	Feedrate factor 1, for tool measuring	DOUBLE	Immediately			
-						
-	2	10, 10	-	-	7/7	M

**Description:** Feedrate factor 1, for tool measuring with rotating spindle  
 =0: single probing with the feedrate calculated by the cycle (but at least with the value of \$SNS\_MEA\_CM\_MIN\_FEEDRATE)  
 >=1: first probing with calculated feedrate (but at least with the value of \$SNS\_MEA\_CM\_MIN\_FEEDRATE).  
 Monitoring parameter for tool measuring with rotating spindle

54676	MEA_CM_FEEDFACTOR_2	-	-			
-	Feedrate factor 2, for tool measuring	DOUBLE	Immediately			
-						
-	2	0, 0	-	-	7/7	M

**Description:** Feedrate factor 2, for tool measuring with rotating spindle  
 =0: second probing with the feedrate calculated by the cycle (only effective with MEA\_CM\_FEEDFACTOR\_1 > 0)  
 >=1: second probing with calculated feedrate, feedrate factor 2  
 Third probing with calculated feedrate (tool speed is influenced by SD54749 \$SNS\_MEA\_FUNCTION\_MASK\_TOOL, Bit 12)  
 Notice: - Feedrate factor 2 should be smaller than feedrate factor 1!  
 - If the value of feedrate factor 2 is 0, a third probing will not be not performed!  
 Monitoring parameter for tool measuring with rotating spindle

54677	MEA_CM_MEASURING_ACCURACY	-	-			
mm	Required measuring accuracy, for tool measuring	DOUBLE	Immediately			
-						
-	2	0.005, 0.005	0	100000	7/7	M

**Description:** Required measuring accuracy for tool measuring  
 The value of this parameter always refers to the last contact of the tool with the probe!  
 Monitoring parameter for tool measuring with rotating spindle

54689	MEA_T_PROBE_MANUFACTURER	-	-			
-	Tool probe type (manufacturer)	BYTE	Immediately			
-						
-	-	0	0	2	7/5	M

**Description:** Tool probe type (manufacturer)  
 These indications are required for tool measuring with rotating spindle.  
 =0: no indication  
 =1: TT130 (Heidenhain)  
 =2: TS27R (Renishaw)

54691	MEA_T_PROBE_OFFSET	-	-			
-	Measurement result offset for tool measuring	BYTE	Immediately			
-						
-	-	0	0	2	7/5	M

**Description:** Measurement result offset for tool measuring with rotating spindle.  
 =0: no offset  
 =1: cycle-internal offset (only effective with SD54690  
 \$SNS\_MEA\_T\_PROBE\_MANUFACTURER<>0)  
 =2: offset through user-defined offset table

54692	MEA_T_CIRCULAR_ARC_DIST	-	-			
mm	Arc distance for single cutting edge measuring from the radius	DOUBLE	Immediately			
-						
-	-	0.25	0	5	7/7	M

**Description:** Describes the distance in relation to the contour of the tool for finding the "highest point of the longest cutting edge" for single cutting edge measuring of tool radii.  
 If the data value is ZERO, not the "highest point on the longest cutting edge" is searched for, but instead the measured value obtained by sampling while the spindle is rotating is used.

54693	MEA_T_MAX_STEPS	-	-			
-	Max. number of contacts for single cutting edge measuring from the radius	BYTE	Immediately			
-						
-	-	10	0	15	7/7	M

**Description:** Maximum number of contacts for finding the "highest point of the longest cutting edge" for single cutting edge measuring of tool radii.  
 If the data value is ZERO, not the "highest point on the longest cutting edge" is searched for, but instead the measured value obtained by sampling while the spindle is rotating is used.

54695	MEA_RESULT_OFFSET_TAB_RAD1	-	-
mm	Offset table (measure tool radius with rotating spindle)	DOUBLE	Immediately
-			
-	5	0, 0, 0, 0, 0	- - 7/5 M

**Description:** Parameter for user-defined measurement result offset for tool measuring with rotating spindle

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD1[0] ... this element always has value ZERO

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD1[1] ... 1st tool radius

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD1[2] ... 2nd tool radius

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD1[3] ... 3rd tool radius

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD1[4] ... 4th tool radius

54696	MEA_RESULT_OFFSET_TAB_RAD2	-	-
mm	Offset table 1st peripheral speed (radius)	DOUBLE	Immediately
-			
-	5	0, 0, 0, 0, 0	- - 7/5 M

**Description:** Parameter for user-defined measurement result offset for tool measuring with rotating spindle

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD2[0] ... 1st peripheral speed

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD2[1] ... offset value for radius regarding 1st radius and 1st peripheral speed

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD2[2] ... offset value for radius regarding 2nd radius and 1st peripheral speed

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD2[3] ... offset value for radius regarding 3rd radius and 1st peripheral speed

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD2[4] ... offset value for radius regarding 4th radius and 1st peripheral speed

54697	MEA_RESULT_OFFSET_TAB_RAD3	-	-
mm	Offset table 2nd peripheral speed (radius)	DOUBLE	Immediately
-			
-	5	0, 0, 0, 0, 0	- - 7/5 M

**Description:** Parameter for user-defined measurement result offset for tool measuring with rotating spindle

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD3[0] ... 2nd peripheral speed

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD3[1] ... offset value for radius regarding 1st radius and 2nd peripheral speed

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD3[2] ... offset value for radius regarding 2nd radius and 2nd peripheral speed

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD3[3] ... offset value for radius regarding 3rd radius and 2nd peripheral speed

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD3[4] ... offset value for radius regarding 4th radius and 2nd peripheral speed

54698	MEA_RESULT_OFFSET_TAB_RAD4	-	-
mm	Offset table 3rd peripheral speed (radius)	DOUBLE	Immediately
-			
-	5	0, 0, 0, 0, 0	- - 7/5 M

**Description:** Parameter for user-defined measurement result offset for tool measuring with rotating spindle

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD4 [0] ... 3rd peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD4 [1] ... offset value for radius regarding 1st radius and 3rd peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD4 [2] ... offset value for radius regarding 2nd radius and 3rd peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD4 [3] ... offset value for radius regarding 3rd radius and 3rd peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD4 [4] ... offset value for radius regarding 4th radius and 3rd peripheral speed

54699	MEA_RESULT_OFFSET_TAB_RAD5	-	-
mm	Offset table 4th peripheral speed (radius)	DOUBLE	Immediately
-			
-	5	0, 0, 0, 0, 0	- - 7/5 M

**Description:** Parameter for user-defined measurement result offset for tool measuring with rotating spindle

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD5 [0] ... 4th peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD5 [1] ... offset value for radius regarding 1st radius and 4th peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD5 [2] ... offset value for radius regarding 2nd radius and 4th peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD5 [3] ... offset value for radius regarding 3rd radius and 4th peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD5 [4] ... offset value for radius regarding 4th radius and 4th peripheral speed

54700	MEA_RESULT_OFFSET_TAB_RAD6	-	-
mm	Offset table 5th peripheral speed (radius)	DOUBLE	Immediately
-			
-	5	0, 0, 0, 0, 0	- - 7/5 M

**Description:** Parameter for user-defined measurement result offset for tool measuring with rotating spindle

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD6 [0] ... 5th peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD6 [1] ... offset value for radius regarding 1st radius and 5th peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD6 [2] ... offset value for radius regarding 2nd radius and 5th peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD6 [3] ... offset value for radius regarding 3rd radius and 5th peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_RAD6 [4] ... offset value for radius regarding 4th radius and 5th peripheral speed

54705	MEA_RESULT_OFFSET_TAB_LEN1	-	-
mm	Offset table (measure tool length with rotating spindle)	DOUBLE	Immediately
-			
-	5	0, 0, 0, 0, 0	- - 7/5 M

**Description:** Parameter for user-defined measurement result offset for tool measuring with rotating spindle

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN1 [0] ... this element always has value ZERO

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN1 [1] ... 1st tool radius

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN1 [2] ... 2nd tool radius

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN1 [3] ... 3rd tool radius

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN1 [4] ... 4th tool radius

54706	MEA_RESULT_OFFSET_TAB_LEN2	-	-
mm	Offset table 1st peripheral speed (length)	DOUBLE	Immediately
-			
-	5	0, 0, 0, 0, 0	- - 7/5 M

**Description:** Parameter for user-defined measurement result offset for tool measuring with rotating spindle

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN2 [0] ... 1st peripheral speed

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN2 [1] ... offset value for radius regarding 1st radius and 1st peripheral speed

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN2 [2] ... offset value for radius regarding 2nd radius and 1st peripheral speed

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN2 [3] ... offset value for radius regarding 3rd radius and 1st peripheral speed

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN2 [4] ... offset value for radius regarding 4th radius and 1st peripheral speed

54707	MEA_RESULT_OFFSET_TAB_LEN3	-	-
mm	Offset table 2nd peripheral speed (length)	DOUBLE	Immediately
-			
-	5	0, 0, 0, 0, 0	- - 7/5 M

**Description:** Parameter for user-defined measurement result offset for tool measuring with rotating spindle

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN3 [0] ... 2nd peripheral speed

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN3 [1] ... offset value for radius regarding 1st radius and 2nd peripheral speed

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN3 [2] ... offset value for radius regarding 2nd radius and 2nd peripheral speed

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN3 [3] ... offset value for radius regarding 3rd radius and 2nd peripheral speed

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN3 [4] ... offset value for radius regarding 4th radius and 2nd peripheral speed



54708	MEA_RESULT_OFFSET_TAB_LEN4			-	-	
mm	Offset table 3rd peripheral speed (length)			DOUBLE	Immediately	
-						
-	5	0, 0, 0, 0, 0	-	-	7/5	M

**Description:** Parameter for user-defined measurement result offset for tool measuring with rotating spindle

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN4 [0] ... 3rd peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN4 [1] ... offset value for radius regarding 1st radius and 3rd peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN4 [2] ... offset value for radius regarding 2nd radius and 3rd peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN4 [3] ... offset value for radius regarding 3rd radius and 3rd peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN4 [4] ... offset value for radius regarding 4th radius and 3rd peripheral speed

54709	MEA_RESULT_OFFSET_TAB_LEN5			-	-	
mm	Offset table 4th peripheral speed (length)			DOUBLE	Immediately	
-						
-	5	0, 0, 0, 0, 0	-	-	7/5	M

**Description:** Parameter for user-defined measurement result offset for tool measuring with rotating spindle

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN5 [0] ... 4th peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN5 [1] ... offset value for radius regarding 1st radius and 4th peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN5 [2] ... offset value for radius regarding 2nd radius and 4th peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN5 [3] ... offset value for radius regarding 3rd radius and 4th peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN5 [4] ... offset value for radius regarding 4th radius and 4th peripheral speed

54710	MEA_RESULT_OFFSET_TAB_LEN6			-	-	
mm	Offset table 5th peripheral speed (length)			DOUBLE	Immediately	
-						
-	5	0, 0, 0, 0, 0	-	-	7/5	M

**Description:** Parameter for user-defined measurement result offset for tool measuring with rotating spindle

\$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN6 [0] ... 5th peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN6 [1] ... offset value for radius regarding 1st radius and 5th peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN6 [2] ... offset value for radius regarding 2nd radius and 5th peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN6 [3] ... offset value for radius regarding 3rd radius and 5th peripheral speed  
 \$SNS\_MEA\_RESULT\_OFFSET\_TAB\_LEN6 [4] ... offset value for radius regarding 4th radius and 5th peripheral speed

54740	MEA_FUNCTION_MASK	-	-			
-	Function mask for measuring cycles	DWORD	Immediately			
-						
-	-	8	-	-	7/5	M

**Description:**

Function mask for measuring cycles

Bit 0: Repeat of workpiece measurement after exceeding the measuring difference (parameter `_TDIF`) and/or safe area (parameter `_TSA`)

0: The measurement is not repeated if the measuring difference and/or safe area is exceeded. A corresponding alarm, which can be acknowledged by "RESET", is displayed.

1: The measurement is repeated a maximum of 4 times if the measuring difference and/or safe area is exceeded.

Bit 1: Repeat of workpiece measurement with alarm and cycle stop at M0

If bit 0 of SD54740 `$_SNS_MEA_FUNCTION_MASK` is set to "1", then the following behavior can be selected with this bit:

0: No alarm, no M0 in the repeat measurements

1: The NC command "M0" is generated in each repeat measurement, and the repeat must be started with NC START. The corresponding alarm, which can be acknowledged by "NC START", is displayed for each of the repeat measurements

Bit 2: Workpiece measurement: M0 with tolerance alarms 62304 oversize, 62305 undersize, 62306 permissible measuring difference exceeded

0: M0 is not generated in the event of the alarms 62304 "oversize", 62305 "undersize" or 62306 "permissible measuring difference exceeded".

These alarms do not interrupt the program execution, there is just a display!

1: The NC command "M0" is generated when these alarms occur.

Bit 3: Accept calibrated workpiece probe radius in the tool data.

This parameter refers functionally only to CYCLE976.

0: Calibrated workpiece probe radius not accepted in the tool data

1: With the calibration variant "with probe ball calculation", the determined "effective probe ball diameter" (54600 `$_SNS_MEA_WP_BALL_DIAM`) is converted to a radius value, and entered in the tool radius geometry memory of the active workpiece probe.

Bit 4: The calibration and measuring planes are different in turning and milling technology.

0: Different working planes for calibration and measurement are not permitted for workpiece measurement.

If the planes are different, alarm 61341 probe not calibrated in active plane is output at cycle runtime.

1: Different working planes for calibration and measurement are permitted for workpiece measurement.

Bit16: Repeat measurement of the tool after exceeding the measuring difference (parameter `_TDIF`) and/or safe area (parameter `_TSA`)

0: The measurement is not repeated if the measuring difference and/or safe area is exceeded. A corresponding alarm, which can be acknowledged by "RESET", is displayed.

1: The measurement is repeated a maximum of 4 times if the measuring difference and/or safe area is exceeded.

Bit17: Repeat of tool measurement with alarm and cycle stop at M0

If bit 16 of SD54740 `$_SNS_MEA_FUNCTION_MASK` is set to "1", then the following behavior can be selected with this bit:

0: No alarm, no M0 in the repeat measurements

1: The NC command "M0" is generated in each repeat measurement, and the repeat must be started with NC START.

The corresponding alarm, which can be acknowledged by "NC START", is displayed for each of the repeat measurements.

Bit 18: Tool measurement: M0 after exceeding the permissible measuring difference

0: M0 is not generated in the event of alarm 62306 "permissible measuring difference exceeded".

This alarm does not interrupt the program execution, there is just a display!

1: The NC command "M0" is generated if this alarm occurs.

Bit19: Tool measuring milling machine: spindle speed reduction during last touching

0: Last touching without spindle speed reduction

1: Last touching with spindle speed reduction

54750	MEA_ALARM_MASK	-	-			
-	Expert mode for cycle alarms	DWORD	Immediately			
-						
-	-	0	-	-	7/5	M

**Description:** Bit 0-7 workpiece measurement  
 Bit 0 =1 alarms with cycle-internal states and codings are displayed (expert mode)!  
 Bit 1-7 reserved  
 Bit 8-16 tool measuring  
 Bit 0-7 reserved

54760	MEA_FUNCTION_MASK_PIECE	-	-			
-	Setting f. input screen, measuring cycles in Automatic, workpiece measuring	DWORD	Immediately			
-						
-	-	514	-	-	7/5	M

**Description:** Setting for input mask, Measuring cycles in Automatic, Workpiece measurement  
 Bit1 Show selection of softkey 3D measurement  
 Bit3 Enable selection of probe calibration data field  
 Bit4 Select Calibrate input measuring feed 1)  
 Bit6 Enable selection of WO compensation in basic frame (SETFRAME)  
 Bit7 Enable selection of WO compensation in channel-specific basic frame  
 Bit8 Enable selection of WO compensation in global basic frame  
 Bit9 Enable selection of WO compensation in settable frame  
 Bit10 Enable selection of WO compensation coarse and fine  
 Bit11 Select Tool offset Geometry and wear  
 Bit12 Select Tool offset Not inverted and inverted  
 Bit13 Select Tool offset L1, R or L1, L2, L3 R  
 Bit14 Select Tool offset Work offset (\_TZL)  
 Bit15 Select Tool offset Dimensional difference check (\_TDIF)  
 Bit 16 Select Workpiece measurement with spindle reversal  
 Bit 17 Select Align workpiece probe in switching direction  
 Bit18 Select Number of measurements (\_NMSP)  
 Bit19 Select Offset with averaging (\_TMV) 1)  
 Bit20 Select Empirical values (\_EVNUM)

Bit21 Select Additive setup offset  
 Bit22 Select Calibrate to unknown or known center point  
 Bit24 Select Calibrate with/without positional deviation  
 Bit25 Select zero offset when measuring the angularity of the spindle  
 If WO compensation bit 6..10 is not selected, then offer "Measure only".  
 If WO compensation bit 6..10 is selected, then always also offer compensation  
 in active WO in the input screen  
 For averaging, display the following parameters: \_K\_TMV, \_EVNUM  
 1) Input measuring feed applies to Automatic and JOG

54762	MEA_FUNCTION_MASK_TOOL	-	-			
-	Setting for input screen, measuring cycles in Automatic, tool measuring	DWORD	Immediately			
-						
-	-	0	-	-	7/5	M

**Description:** Setting for input mask, Measuring cycles in Automatic, Tool measurement  
 54762 MEA\_FUNCTION\_MASK\_TOOL  
 Bit3 Enable selection of tool probe calibration data field  
 Bit4 Select Calibrate input measuring feed (VMS) 1)  
 Bit5 Select Input feed and spindle speeds for contacting  
 Bit7 Select Measure in Machine and Work  
 Bit8 Select Measure absolute and incremental  
 Bit9 Select Tool offset geometry and wear  
 Bit10 Select Single cutting edge measuring  
 Bit11 Select Spindle reversal when calibrating on the plane  
 Bit12 Select Number of measurements (\_NMSP)  
 Bit13 Select Empirical values (\_EVNUM)  
 1) Measuring feed input applies to Automatic and JOG

54764	MEA_FUNCTION_MASK_TURN	-	-			
-	Setting for input mask, Measuring cycles in Automatic, Workpiece turning	DWORD	Immediately			
-						
-	-	0	-	-	7/5	M

**Description:** 54764 MEA\_FUNCTION\_MASK\_TURN  
 Setting for input mask, Measuring cycles Turning in Automatic  
 Bit0 Measure inside/outside diameter with reversal  
 Bit1 Measure inside/outside diameter "travel under turning center"?

54780	J_MEA_FUNCTION_MASK_PIECE	-	-			
-	Settings for input screen Workpiece measurement in JOG	DWORD	Immediately			
-						
-	-	512	-	-	7/5	M

**Description:** Settings for input mask Workpiece measuring in JOG  
 Bit2 Activate compensation for electronic workpiece probe  
 Bit3 Select probe calibration data field, release  
 Bit5 Select WO as basis for measuring  
 Bit6 Select WO compensation in basic frame, release

## 1.5 Machine / setting data for SINUMERIK Operate and Cycles

Bit7 Select WO compensation in channel basic frame, release  
 Bit8 Select WO compensation in global basic frame, release  
 Bit9 Select WO compensation in settable frame, release

54782	J_MEA_FUNCTION_MASK_TOOL	-	-			
-	Settings for input screen Tool measuring in JOG	DWORD	Immediately			
-						
-	-	0	-	-	7/5	M

**Description:** Settings for input mask Tool measuring in JOG  
 Bit2 Enable automatic tool measurement  
 Bit3 Enable selection of tool probe calibration data field  
 Bit10 Select single cutting edge measuring  
 Bit 11 Select spindle reversal when calibrating on the plane

55200	MAX_INP_FEED_PER_REV	-	-			
mm/rev	Upper limit feedrate/rev	DOUBLE	Immediately			
-						
-	-	1	0	15	7/4	M

**Description:** Feedrate input upper limit for mm/rev

55201	MAX_INP_FEED_PER_TIME	-	-			
mm/min	Upper limit feedrate/min	DOUBLE	Immediately			
-						
-	-	10000	0	100000	7/4	M

**Description:** Feedrate input upper limit for mm/min

55202	MAX_INP_FEED_PER_TOOTH	-	-			
mm	Upper limit feedrate/tooth	DOUBLE	Immediately			
-						
-	-	1	0	5	7/4	M

**Description:** Feedrate input upper limit for mm/tooth

55212	FUNCTION_MASK_TECH_SET	-	-			
-	Function mask Cross-technology	BYTE	Immediately			
-						
-	-	6	-	-	7/4	M

**Description:** Function mask Cross-technology  
 Bit 0: Tool preselection active  
 Bit 1: Calculate thread depth from thread pitch  
 Bit 2: Refer to Table for thread diameter and depth

55214	FUNCTION_MASK_MILL_SET	-	-			
-	Function mask Milling	DWORD	Immediately			
-						
-	-	5	-	-	7/4	M

**Description:** Function mask Milling  
 Bit 0: Default setting - milling cycles with synchronous operation  
 Bit 2: Depth calculation in milling cycles without parameter SC

55216	FUNCTION_MASK_DRILL_SET	-	-			
-	Function mask Drilling	DWORD	Immediately			
-						
-	-	24	-	-	7/4	M

**Description:**

Screen form for drilling

Bit 1: Boring CYCLE86: Take into consideration rotation of the tool plane when positioning the spindle

Bit 2: Boring CYCLE86: When positioning the spindle, take into account swiveled table kinematics (toolholder)

Bit 3: Tapping CYCLE84: Monitoring machine data 31050 and 31060 of the spindle

Bit 4: Tapping CYCLE840: Monitoring machine data 31050 and 31060 of the spindle

Bit 6: Boring CYCLE86: Adapt spindle position to the orientation of the tool  
Tool orientation can be realized using TOOLCARR or TRAORI before the cycle is called.

If bit 6=1, then bits 1 and 2 are no longer effective.

Bit 7: Boring CYCLE86: Adapt the direction of the retraction path in the plane to active mirroring

0: Retraction in the plane is realized as programmed

1: When mirroring is active, when retracting in the plane, the direction is adapted in the cycle to the active mirroring.

55218	FUNCTION_MASK_TURN_SET	-	-			
-	Function mask Turning	DWORD	Immediately			
-						
-	-	1	-	-	7/4	M

**Description:**

Function mask Turning

Bit 0: New thread table during thread cutting

Bit 1:Reserved (CYCLE93)

Bit 2:Reserved (CYCLE93)

Bit 3: Chamfer in CYCLE930 as chamfer length (CHF)

55220	FUNCTION_MASK_MILL_TOL_SET	-	-			
-	Function mask High Speed Settings CYCLE832	DWORD	Immediately			
-						
-	-	0	-	-	7/5	M

**Description:**

Function mask High Speed Settings CYCLE832

Bit 0: Display input fields technology

Bit 1: Settings as agreed in the following setting data:

\$SCS\_MILL\_TOL\_FACTOR\_NORM

\$SCS\_MILL\_TOL\_FACTOR\_ROUGH

\$SCS\_MILL\_TOL\_FACTOR\_SEMIFIN

\$SCS\_MILL\_TOL\_FACTOR\_FINISH

\$SCS\_MILL\_TOL\_VALUE\_NORM

\$SCS\_MILL\_TOL\_VALUE\_ROUGH

\$SCS\_MILL\_TOL\_VALUE\_SEMIFIN

\$SCS\_MILL\_TOL\_VALUE\_FINISH

## 1.5 Machine / setting data for SINUMERIK Operate and Cycles

55221	FUNCTION_MASK_SWIVEL_SET	-	-			
-	Function mask Swivel CYCLE800	DWORD	Immediately			
-						
-	-	0	-	-	7/3	M

**Description:** Function screen form Swivel CYCLE800  
 Bit 0: Display input field "No swivel"  
 Bit 1: =0: Selection text retract "Z" or retract "Z XY"  
       =1: Selection text retract to "fixed position 1" or "fixed position 2"  
 Bit 2: Allow selection "Deselection" of the swivel data block  
 Bit 3: Show active swivel plane under Swivel in JOG  
 The settings of the Swivel function mask affect all swivel data sets  
 Bit 4: =0: Evaluation of input values in pole position of machine kinematics  
       =1: Compatibility  
 Bit 5: Reserved  
 Bit 6: Do not offer "direct" swivel mode under swivel in JOG

55230	CIRCLE_RAPID_FEED	-	-			
mm/min	Positional feed on circular paths	DOUBLE	Immediately			
-						
-	-	10000	100	100000	7/4	M

**Description:** Rapid traverse feedrate in mm/min for positioning on circle path

55231	MAX_INP_RANGE_GAMMA	-	-			
degrees	Maximum input area alignment angle gamma	DOUBLE	Immediately			
-						
-	-	5	0	90	7/4	M

**Description:** Maximum input area alignment angle gamma

55232	SUB_SPINDLE_REL_POS	-	-			
mm	Retract position Z for counterspindle	DOUBLE	Immediately			
-						
-	-	0	-	-	7/4	M

**Description:** Z retraction position for the counterspindle

55260	MAJOG_SAFETY_CLEARANCE	-	-			
mm	Safety clearance for machine JOG	DOUBLE	Immediately			
-						
-	-	1	-	-	7/4	M

**Description:** Safety clearance for machine JOG

55261	MAJOG_RELEASE_PLANE	-	-			
mm	Retraction plane for machine JOG	DOUBLE	Immediately			
-						
-	-	100	-	-	7/4	M

**Description:** Retraction plane for machine JOG

55410	MILL_SWIVEL_ALARM_MASK	-	-			
-	Hide and unhide cycle alarms for CYCLE800	DWORD	Immediately			
-						
-	-	0	-	-	7/5	M

**Description:** Hide and unhide cycle alarms CYCLE800  
 Bit 0: error analysis 62186 - active work offset G%4 and base (base relation) include rotations  
 Bit 1: error analysis 62187 - active base and base relation (G500) include rotations

55420	MILL_SWIVEL_RESET_RETRACT	-	-			
-	Initial setting swivel: retract	BYTE	Immediately			
-						
-	-	0	0	5	7/5	M

**Description:** Initial setting swivel: retract  
 With this setting data, the status adopted by the toggler "Retract" in the mask "Swivel plane" when activating the "Initial setting" softkey can be set:  
 0 = no change  
 1 = no  
 2 = Z  
 3 = Z XY  
 4 = Tool direction max.  
 5 = Tool direction inc.

55421	MILL_SWIVEL_RESET_TRACK	-	-			
-	Initial setting swivel: tool correction	BYTE	Immediately			
-						
-	-	0	0	2	7/5	M

**Description:** Initial setting swivel: Tool correction  
 With this setting data, the status adopted by the toggler "Tool correction" in the mask "Swivel plane" after activating the softkey "Initial setting" can be set:  
 0 = no change  
 1 = do not correct  
 2 = correct

55441	MILL_TOL_FACTOR_ROUGH	-	-			
-	Rotary axes tolerance factor for roughing CYCLE832 of G group 59	DOUBLE	Immediately			
-						
-	-	10	0	1000	7/5	M

**Description:** Rotary axes tolerance factor for roughing CYCLE832 of G group 59

55442	MILL_TOL_FACTOR_SEMIFIN	-	-			
-	Rotary axes tolerance factor for prefinishing CYCLE832 of G group 59	DOUBLE	Immediately			
-						
-	-	10	0	1000	7/5	M

**Description:** Rotary axes tolerance factor for prefinishing CYCLE832 of G group 59



55443	MILL_TOL_FACTOR_FINISH	-	-			
-	Rotary axes tolerance factor for finishing CYCLE832 of G group 59	DOUBLE	Immediately			
-						
-	-	10	0	1000	7/5	M

**Description:** Rotary axes tolerance factor for finishing CYCLE832 of G group 59

55446	MILL_TOL_VALUE_ROUGH	-	-			
mm	Tolerance value for roughing CYCLE832 (High Speed Settings)	DOUBLE	Immediately			
-						
-	-	0.1	0	10	7/5	M

**Description:** Tolerance value for roughing CYCLE832

55447	MILL_TOL_VALUE_SEMIFIN	-	-			
mm	Tolerance value for smooth-finishing CYCLE832 (High Speed Settings)	DOUBLE	Immediately			
-						
-	-	0.05	0	10	7/5	M

**Description:** Tolerance value for prefinishing CYCLE832

55448	MILL_TOL_VALUE_FINISH	-	-			
mm	Tolerance value for finishing CYCLE832 (High Speed Settings)	DOUBLE	Immediately			
-						
-	-	0.01	0	10	7/5	M

**Description:** Tolerance value for finishing CYCLE832

55460	MILL_CONT_INITIAL_RAD_FIN	-	-			
mm	Contour pocket milling: approach circle radius finishing	DOUBLE	Immediately			
-						
-	-	0	0	100	7/4	M

**Description:** This data affects the radius of the approach circle during contour pocket finishing.

0: the radius is selected to maintain a safety clearance to the finishing allowance in the starting point.

>0: the radius is selected to maintain the value of this setting data to the finishing allowance in the starting point.

55481	DRILL_TAPPING_SET_GG12	-	-			
-	Setting tapping G group 12: block change behavior at exact stop	DOUBLE	Immediately			
-						
-	2	0	0	3	7/4	M

**Description:** Settings for tapping G group 12 cycle CYCLE84 and CYCLE840:  
G group 12: block change behavior at exact stop (G60)

55482	DRILL_TAPPING_SET_GG21	-	-			
-	Setting tapping G group 21: acceleration profile	DOUBLE	Immediately			
-						
-	2	0	0	3	7/4	M

**Description:** Settings for tapping G group 21 cycle CYCLE84  
G group 21: acceleration profile (SOFT, BRISK, ...)

55483	DRILL_TAPPING_SET_GG24	-	-			
-	Setting tapping G group 24: precontrol	DOUBLE	Immediately			
-						
-	2	0	0	2	7/4	M

**Description:** Settings for tapping G group 24 cycle CYCLE84 and CYCLE840:  
G group 24: precontrol (FFWON, FFWOF)

55484	DRILL_TAPPING_SET_MC	-	-			
-	Setting tapping: spindle operation at MCALL	DOUBLE	Immediately			
-						
-	2	0	0	1	7/4	M

**Description:** Setting for tapping cycle CYCLE84 spindle operation at MCALL  
0= reactivate spindle operation at MCALL  
1= maintain position-controlled spindle operation at MCALL

55489	DRILL_MID_MAX_ECCENT	-	-			
mm	Max. center offset f. center boring	DOUBLE	Immediately			
-						
-	-	0.5	0	10	7/4	M

**Description:** Maximum center offset for center boring

55490	DRILL_SPOT_DIST	-	-			
mm	Preboring depth drill and thread milling	DOUBLE	Immediately			
-						
-	-	1	0	100	7/4	M

**Description:** Preboring depth for drill and thread milling

55500	TURN_FIN_FEED_PERCENT	-	-			
%	Roughing feedrate for complete machining in %	BYTE	Immediately			
-						
-	-	100	1	100	7/4	M

**Description:** When selecting Complete machining (roughing and finishing), the percentage of the entered feedrate F as specified in this setting data is used for finishing.

55505	TURN_ROUGH_O_RELEASE_DIST	-	-			
mm	Return distance stock removal for external machining	DOUBLE	Immediately			
-						
-	-	1	-1	100	7/4	M

**Description:** This setting data defines the distance by which the tool is returned from the contour during stock removal of an outer corner. This does not apply to stock removal of a contour.  
-1: the distance is specified internally.

55506	TURN_ROUGH_I_RELEASE_DIST	-	-			
mm	Return distance stock removal for internal machining	DOUBLE	Immediately			
-						
-	-	0.5	-1	100	7/4	M

**Description:** This setting data defines the distance by which the tool is returned from the contour during stock removal of an inner corner. This does not apply to stock removal of a contour.  
-1: the distance is specified internally.

55510	TURN_GROOVE_DWELL_TIME	-	-			
s	Tool clearance time for grooving at the base (neg. value=rotations)	DOUBLE	Immediately			
-						
-	-	-1	-100	100	7/4	M

**Description:** If a tool clearance time occurs in a cycle, e.g. deep hole drilling, grooving, the value of this setting data is used

- negative value in spindle revolutions
- positive value in seconds

55540	TURN_PART_OFF_CTRL_DIST	-	-			
mm	Path for cut-off check	DOUBLE	Immediately			
-						
-	-	0.1	0	10	7/4	M

**Description:** Path for cut-off check

55541	TURN_PART_OFF_CTRL_FEED	-	-			
mm/min	Feedrate for cut-off check	DOUBLE	Immediately			
-						
-	-	0	-	-	7/4	M

**Description:** Feedrate for cut-off check

55542	TURN_PART_OFF_CTRL_FORCE	-	-			
%	Force for cut-off check in %	DOUBLE	Immediately			
-						
-	-	10	1	100	7/4	M

**Description:** Force in percent for cut-off check

55543	TURN_PART_OFF_RETRACTION	-	-			
mm	Retraction path prior to cut-off with counterspindle	DOUBLE	Immediately			
-						
-	-	0	0	1	7/4	M

**Description:** Retraction path prior to cut-off with counterspindle

55550	TURN_FIXED_STOP_DIST	-	-			
mm	Counterspindle: path for travel to fixed stop	DOUBLE	Immediately			
-						
-	-	10	0.001	1000	7/4	M

**Description:** In this setting data you specify the distance to the programmed target position, after which the counterspindle travels with a special feedrate during travel to fixed stop (see 55551 \$SCS\_TURN\_FIXED\_STOP\_FEED).

55551	TURN_FIXED_STOP_FEED	-	-			
mm/min	Counterspindle: feedrate for travel to fixed stop	DOUBLE	Immediately			
-						
-	-	0	-	-	7/4	M

**Description:** In this setting data you specify the feedrate with which the counterspindle travels to a fixed stop. In setting data 55550 \$SCS\_TURN\_FIXED\_STOP\_DIST you specify the distance after which the tool travels in this feedrate.

55552	TURN_FIXED_STOP_FORCE	-	-			
%	Counterspindle: force for travel to fixed stop in %	DOUBLE	Immediately			
-						
-	-	10	1	100	7/4	M

**Description:** In this setting data you specify at which percentage of the driving force the counterspindle is to stop during travel to fixed stop.

55553	TURN_FIXED_STOP_RETRACTION	-	-			
mm	Counterspindle: retraction path prior to chucking after fixed stop	DOUBLE	Immediately			
-						
-	-	0	0	1	7/4	M

**Description:** Retraction path prior to chucking after travel to fixed stop

55580	TURN_CONT_RELEASE_ANGLE	-	-			
degrees	Contour turning: retraction angle	DOUBLE	Immediately			
-						
-	-	45	0	90	7/4	M

**Description:** This setting data defines the angle by which the tool is retracted from the contour during contour turning roughing.

55581	TURN_CONT_RELEASE_DIST	-	-			
mm	Contour turning: retraction value	DOUBLE	Immediately			
-						
-	-	1	0.01	10	7/4	M

**Description:** This setting data defines the value by which the tool is retracted in both axes during contour turning roughing.

55582	TURN_CONT_TRACE_ANGLE	-	-			
degrees	Contour turning: minimum angle for rounding along contour	DOUBLE	Immediately			
-						
-	-	5	0	90	7/4	M

**Description:** This setting data specifies the angle between the cutting edge and the contour, at which the contour is rounded in order to remove residual material.

55583	TURN_CONT_VARIABLE_DEPTH	-	-			
%	Contour turning: percentage for variable cutting depth	BYTE	Immediately			
-						
-	-	20	0	50	7/4	M

**Description:** Percentage for variable cutting depth during contour turning

55584	TURN_CONT_BLANK_OFFSET	-	-			
mm	Contour turning: blank allowance	DOUBLE	Immediately			
-						
-	-	1	0	100	7/4	M

**Description:** This setting data specifies the distance to the blank, after which contour turning is switched from G0 to G1 in order to adjust any possible blank allowances.

55585	TURN_CONT_INTERRUPT_TIME	-	-			
s	Contour turning: feed interrupt time (neg. values = revolutions)	DOUBLE	Immediately			
-						
-	-	-1	-	-	7/4	M

**Description:** Feed interrupt time during contour turning, contour grooving and plunge turning

- negative value in spindle revolutions
- positive value in seconds

This setting data is effective only if setting data 55586 is  
\$SCS\_TURN\_CONT\_INTER\_RETRACTION = 0.

55586	TURN_CONT_INTER_RETRACTION	-	-			
mm	Contour turning: retraction path after feed interrupt	DOUBLE	Immediately			
-						
-	-	1	0	10	7/4	M

**Description:** Retraction path feed interrupt during contour turning, contour grooving and plunge turning:

>0: retraction path after feed interrupt (setting data 55585  
\$SCS\_TURN\_CONT\_INTERRUPT\_TIME is ineffective!)  
=0: no retraction path

55587	TURN_CONT_MIN_REST_MAT_AX1	-	-			
%	Contour turning: minimum difference dimension residual machining axis 1	DOUBLE	Immediately			
-						
-	-	50	0	1000	7/4	M

**Description:** This MD defines the limit value for stock removal of residual material in the direction of the 1st axis.

Example:

If this MD is set to 50% and if the finishing allowance is 0.5mm, the residual material which is thinner than 0.25mm is not removed in a separate machining step, but during finishing.

55588	TURN_CONT_MIN_REST_MAT_AX2	-	-			
%	Contour turning: minimum difference dimension residual machining axis 2	DOUBLE	Immediately			
-						
-	-	50	0	1000	7/4	M

**Description:** This MD defines the limit value for stock removal of residual material in the direction of the 2nd axis.

Example:

If this MD is set to 50% and if the finishing allowance is 0.5mm, the residual material which is thinner than 0.25mm is not removed in a separate machining step, but during finishing.

55595	TURN_CONT_TOOL_BEND_RETR	-	-			
mm	Contour plunge turning: retraction path due to tool bending	DOUBLE	Immediately			
-						
-	-	0.1	0	1	7/4	M

**Description:** Retraction due to tool bending during plunge turning

55596	TURN_CONT_TURN_RETRACTION	-	-			
mm	Contour plunge turning: retraction depth prior to turning	DOUBLE	Immediately			
-						
-	-	0.1	0	1	7/4	M

**Description:** Retraction depth prior to plunge turning

55613	MEA_RESULT_DISPLAY	-	-			
-	Selection of measurement result display	BYTE	Immediately			
-						
-	-	0	0	10	7/7	M

**Description:** Measurement results screen display  
 =0: No measurement results screen  
 =1: The measurement results screen is visible for a fixed time of 8 seconds  
 =3: When the measurement results screen is visible, the cycle is stopped by an internal M0;  
       on NC start the measuring cycle is resumed and the measurement results screen is deselected.  
 =4: The measurement results screen only appears in the case of cycle alarms 61303, 61304, 61305, 61306.

55618	MEA_SIM_ENABLE	-	-			
-	Selection of measuring cycle response in a simulated environment	BYTE	Immediately			
-						
-	-	1	0	9	7/5	M

**Description:** Selection of measuring cycle response in a simulated environment (HMI)  
 = 0: Measuring cycles are not executed (measuring cycle is skipped internally)

= 1: Measuring cycles are executed. Real axes are required!  
 During calibration no values are entered in the probe data fields,  
 no measurement result is displayed,  
 the measuring cycle is not logged,  
 the travel is performed without collision detection.

55619	MEA_SIM_MEASURE_DIFF	-	-			
mm	Value for simulated error of measurement	DOUBLE	Immediately			
-						
-	-	0	-100	100	7/5	M

**Description:** With this parameter simulated measurement errors can be specified on the measuring points.  
 Provided that SD55618 \$SCS\_MEA\_SIM\_ENABLE=1 is used and that the measuring cycles are executed in a simulated environment of HMI a measurement difference can be entered in this parameter. The value of the measurement difference must be smaller than the measuring path in parameter \_FA!  
 Otherwise cycle alarm 61301 "Probe does not switch" is output during active simulation.

55622	MEA_EMPIRIC_VALUE_NUM	-	-			
-	Number of empirical values	DWORD	Immediately			
-						
-	-	20	0	1000	7/5	M

**Description:** Number of empirical values

55623	MEA_EMPIRIC_VALUE	-	-			
mm	Empirical value memory	DOUBLE	Immediately			
-						
-	20	0	-100000	100000	7/7	M

**Description:** In its default setting the empirical value memory consists of 20 memory elements.  
 Using parameter \$SCS\_MEA\_EMPIRIC\_VALUE\_NUM the number of memory elements can be defined! Currently, however, these 20 memory elements cannot be changed!  
 In the empirical value memory, empirical values can be stored which are cleared with the currently calculated difference between the setpoint and the actual value.  
 Using parameter \_EVNUM the empirical value element to be cleared is addressed!

55624	MEA_AVERAGE_VALUE_NUM	-	-			
-	Number of mean values	DWORD	Immediately			
-						
-	-	20	0	1000	7/5	M

**Description:** Number of mean values

55625	MEA_AVERAGE_VALUE	-	-			
-	Mean value memory	DOUBLE	Immediately			
-						
-	20	0	-100000	100000	7/7	M

**Description:** In its default setting the mean value memory consists of 20 memory elements. Using parameter \$SCS\_MEA\_AVERAGE\_VALUE\_NUM the number of memory elements can be defined! Currently, however, these 20 memory elements cannot be changed!

In the mean value memory, the mean values calculated in connection with functionality "Automatic tool offset with mean value creation" are stored.

Using parameter \_EVNUM the mean value element to be used is addressed!

55628	MEA_TP_FEED_MEASURE	-	-			
mm/min	Feed for calibrating a tool probe	DOUBLE	Immediately			
-						
-	-	300	0	5000	7/7	M

**Description:** MEA\_TP\_FEED\_MEASURE  
Feed for calibrating a tool probe with stationary spindle in AUTO and JOG

55630	MEA_FEED_MEASURE	-	-			
mm/min	Feed for calibrating a workpiece probe	DOUBLE	Immediately			
-						
-	-	300	0	5000	7/7	M

**Description:** MEA\_FEED\_MEASURE  
Feed for calibrating a workpiece probe in Automatic and JOG

55632	MEA_FEED_RAPID_IN_PERCENT	-	-			
%	Rapid traverse velocity in per cent, for intermediate positioning	DOUBLE	Immediately			
-						
-	-	50	0	100	7/7	M

**Description:** Traverse velocities for positioning in the measuring cycle between the measuring positions, with rapid traverse velocity in per cent, with collision detection not active

Note:

If necessary, adapt the value of the rapid traverse velocity in per cent to the probe type used and to the machine characteristics! This means that the maximum deflection of the actual probe type must be considered!!

Explanations:

In the measuring cycles any intermediate positions are calculated prior to the actual set of measurements. These positions can be approached

- with collision detection (SD55740 \$SCS\_MEA\_FUNCTION\_MASK Bit0/Bit16=1 or
- without collision detection (SD55740 \$SCS\_MEA\_FUNCTION\_MASK Bit0/Bit16=0).

Depending on this setting different velocities are used for the approach:

- with collision detection (SD55740 \$SCS\_MEA\_FUNCTION\_MASK Bit0/Bit16=1): With SD55634 \$SCS\_MEA\_FEED\_PLAN\_VALUE the traversing feed is performed in the plane and with SD55636 \$SCS\_MEA\_FEED\_FEEDAX\_VALUE during traversing in the feed axis (applicate).



If the probe switches when these intermediate positions are approached, the movement is stopped and the alarm "Probe collision" is output.

- without collision detection (SD55740 \$SCS\_MEA\_FUNCTION\_MASK Bit0/Bit16=0):

The intermediate positions are approached with the maximum axis velocity (rapid traverse) in per cent as specified in SD55632

\$SCS\_MEA\_FEED\_RAPID\_IN\_PERCENT.

With SD55632 \$SCS\_MEA\_FEED\_RAPID\_IN\_PERCENT=0 and SD55632

\$SCS\_MEA\_FEED\_RAPID\_IN\_PERCENT=100 the maximum axis velocity is effective.

55634	MEA_FEED_PLANE_VALUE	-	-			
mm/min	Traverse velocity for intermediate positioning in the plane	DOUBLE	Immediately			
-						
-	-	1000	0	5000	7/7	M

**Description:**

MEA\_FEED\_MEASURE

Measure measuring feed of workpiece in Automatic and JOG

55636	MEA_FEED_FEEDAX_VALUE	-	-			
mm/min	Positioning velocity in the infeed axis	DOUBLE	Immediately			
-						
-	-	1000	0	10000	7/7	M

**Description:**

Traversing speed for intermediate positioning in the measuring cycle in the infeed axis, with and without collision detection

Note:

If necessary, adapt the value of the speed in the infeed axis to the probe type used and to the

machine characteristics! This means that the maximum deflection of the actual probe type must be considered!!

Explanations:

In the measuring cycles any intermediate positions are calculated prior to the actual set of measurements. These positions can be approached

- with collision detection (SD55740 \$SCS\_MEA\_FUNCTION\_MASK Bit0/Bit16=1) or
- without collision detection (SD55740 \$SCS\_MEA\_FUNCTION\_MASK Bit0/Bit16=0).

Depending on this setting different speeds are used for the approach:

- with collision detection (SD55740 \$SCS\_MEA\_FUNCTION\_MASK Bit0/Bit16=1):  
With SSD55636 \$SCS\_MEA\_FEED\_FEEDAX\_VALUE the traversing feed is performed in the infeed axis (applicate).

If the probe switches when these intermediate positions are approached, the movement is stopped and the alarm "Probe collision" is output.

- without collision detection (SD55740 \$SCS\_MEA\_FUNCTION\_MASK Bit0/Bit16=0):

The intermediate positions are approached with the maximum axis velocity (rapid traverse) in per cent as specified in SD55632

\$SCS\_MEA\_FEED\_RAPID\_IN\_PERCENT.

With SD55632 \$SCS\_MEA\_FEED\_RAPID\_IN\_PERCENT=0 and SD55632

\$SCS\_MEA\_FEED\_RAPID\_IN\_PERCENT=100 the maximum axis velocity is effective.

55638	MEA_FEED_FAST_MEASURE	-	-			
mm/min	Rapid measuring feed	DOUBLE	Immediately			
-						
-	-	900	0	10000	7/7	M

**Description:** Rapid measuring feed  
Note:  
If necessary, adjust the value of the velocity to the probe type used and to the machine characteristics!  
This means that the maximum deflection of the actual probe type must be considered!!  
The use of "Rapid measuring feed" depends of SD55740 \$SCS\_MEA\_FUNCTION\_MASK Bit4!

55640	MEA_FEED_CIRCLE	-	-			
mm/min	Circular feed for measuring circle segment	DOUBLE	Immediately			
-						
-	-	1000	0	5000	7/7	M

**Description:** MEA\_FEED\_CIRCLE  
Circular feed for measuring circle segment

55642	MEA_EDGE_SAVE_ANG	-	-			
degrees	Additional safe angle for measuring corner	DOUBLE	Immediately			
-						
-	-	0	0	10	7/7	M

**Description:** Set \$SCS\_MEA\_EDGE\_SAVE\_ANG=10 for compatibility programs.  
The set angle is added to the measured angle as a safety angle.

55740	MEA_FUNCTION_MASK	-	-			
-	Function mask for measuring cycles	DWORD	Immediately			
-						
-	-	81921	-	-	7/4	M

**Description:** Function mask for measuring cycles  
Bit 0: Collision monitoring by workpiece probe with intermediate positioning  
0: No collision monitoring  
1: In the case of positionings which are calculated from the measuring cycles and executed between the measuring points, the motion is canceled as soon as the probe returns a switching signal. A corresponding alarm message is displayed.  
Bit 1: Coupling of the spindle orientation to the coordinate rotation in the active plane, for workpiece measurement with a multi probe in automatic mode  
0: The spindle orientation is not coupled to the coordinate rotation in the plane.  
1: If multi probes are used, the spindle is oriented as a function of the active coordinate rotation in the plane (rotations around the infeed axis (applicate)).  
The axis-parallel orientation of the probe ball contact points (calibrated trigger points) with reference to the geometry axes is thus retained.  
The direction of rotation of the spindle is determined by SD55740 \$SCS\_MEA\_FUNCTION\_MASK Bit2.

Note:

Coordinate rotation in the active plane means:

- Rotation around the Z axis with G17
- Rotation around the Y axis with G18
- Rotation around the X axis with G19

NOTICE!

The coupling is canceled by the measuring cycle if

- The rotations around the 1st or 2nd measuring axis (abscissa or ordinate with G17) between the calibration and the actual measuring situation are not identical !!!
- The workspindle is not position-controlled (SPOS is not possible)
- A mono probe is used (\_PRNUM=xlxx)!
- There is no alarm or message when the measuring cycle cancels the coupling!

Bit 2: Direction of rotation of the spindle positioning for workpiece measurement in relation to active coupling of the spindle orientation to the coordinate rotation in the active plane

0: The spindle is positioned according to default.

- Angle of the coordinate rotation in the plane 0°: spindle positioning 0°
- Angle of the coordinate rotation in the plane 90°: spindle positioning 270°
- 1: The spindle is positioned in the opposite direction (matched angle values).
- Angle of the coordinate rotation in the plane 0°: spindle positioning 0°
- Angle of the coordinate rotation in the plane 90°: spindle positioning 90°

Bit 3: Number of repetitions of workpiece measurement if the probe does not switch

0: A maximum of 5 attempts to measure are made, then the measuring cycle alarm "Probe not switching" is output.

1: The measuring cycle alarm "Probe not switching" is generated after the first unsuccessful attempt to measure.

Bit 4: Measuring feed for workpiece measurement

0: The feed generated in the cycle or the feed programmed in the parameter \_VMS is used for the measuring traverse.

1: The probe is initially traversed with "Fast measuring feed" SD55638 \$SCS\_MEA\_FEED\_FAST\_MEASURE, when it touches the measuring object, it then retracts 2 mm from the measuring point. Now the actual measuring traverse is made with the feed from \_VMS.

The function "Fast measuring feed" is only realized if the value in parameter \_FA >=1!

Bit 5: Retraction velocity from the measuring point during workpiece measurement

0: The retraction from the measuring point takes place with the same velocity as for intermediate positioning (SD55634 \$SCS\_MEA\_FEED\_PLANE\_VALUE).

1: The retraction velocity is the percentage of the rapid traverse velocity specified in SD55632 \$SCS\_MEA\_FEED\_RAPID\_IN\_PERCENT, and is only effective with active collision monitoring (SD55740 \$SCS\_MEA\_FUNCTION\_MASK Bit0).

Bit 6: Workpiece measuring, probe activation/deactivation for positioning of spindles

0: No deactivation of the workpiece probe before positioning of spindles  
1: Deactivation of the workpiece probe before positioning of spindles

Bit 7: Measure kinematics, normalization basis of orientation vectors  
0: Normalization based on calculated orientation vectors (V1xyz, V2xyz)  
1: Normalization based on input values (TCARR) of orientation vectors (V1xyz, V2xyz)

Bit 8: Measure kinematics, measuring with TRAORI or TCARR (CYCLE800) active  
0: Measuring without TRAORI or TCARR (CYCLE800) active  
1: Measuring with TRAORI or TCARR (CYCLE800) active

Bit14: Coupling of the spindle orientation to the coordinate rotation around the infeed axis for workpiece measurement with a multi probe in measuring in JOG mode  
0: The current spindle orientation at NC START of the measuring task while measuring in JOG is used as the starting position for the following sequence!  
1: When multi probes are used, the spindle is oriented as a function of the active coordinate rotation around the infeed axis (applicate). The axis-parallel orientation of the probe ball contact points (calibrated trigger points) with reference to the geometry axes is thus retained. The direction of rotation of the spindle is determined by SD55740 \$SCS\_MEA\_FUNCTION\_MASK Bit2.

Note:  
Coordinate rotation in the active plane means:  
- Rotation around the Z axis with G17  
  
- Rotation around the Y axis with G18  
  
- Rotation around the X axis with G19

NOTICE!  
The coupling is canceled by the measuring cycle if  
- The rotations around the 1st or 2nd measuring axis (abscissa or ordinate with G17) between the calibration and the actual measuring situation are not identical !!!  
- The workspindle is not position-controlled (SPOS is not possible)  
- A mono probe is used!  
- There is no alarm or message when the measuring cycle cancels the coupling!

Bit15: Workpiece measurement calibration in a hole with a known or unknown center in measuring in JOG  
0: Calibration in a hole with an unknown center  
1: Calibration in a hole with a known center

Bit16: Collision monitoring with tool measurement  
0: No collision monitoring  
1: In the case of positionings which are calculated from the measuring cycles and executed between the measuring points, the motion is canceled as soon as the probe returns a switching signal. A corresponding alarm message is displayed.

Bit 17: Number of repetitions of tool measurement if the probe does not switch  
0: A maximum of 5 attempts to measure are made, then the measuring cycle alarm "Probe not switching" is output.

## 1.5 Machine / setting data for SINUMERIK Operate and Cycles

1: The measuring cycle alarm "Probe not switching" is generated after the first unsuccessful attempt to measure.

Bit 18: Measuring feed for tool measurement

0: The feed generated in the cycle or the feed programmed in the parameter `_VMS` is used for the measuring traverse.

1: The probe is initially traversed with "Fast measuring feed" `SD55638 $SCS_MEA_FEED_FAST_MEASURE`, when it touches the measuring object, it then retracts 2 mm from the measuring point. Now the actual measuring traverse is made with the feed from `_VMS`.

The function "Fast measuring feed" is only realized if the value in parameter `_FA`  $\geq 1$ !

Bit19: Retraction velocity from the measuring point during tool measurement

0: The retraction from the measuring point takes place at the same velocity as for intermediate positioning (`SD55634 $SCS_MEA_FEED_PLANE_VALUE`).

1: The retraction velocity is the percentage of the rapid traverse velocity specified in `SD55632 $SCS_MEA_FEED_RAPID_IN_PERCENT`, and is only effective with active collision monitoring (`SD55740 $SCS_MEA_FUNCTION_MASK Bit16`).

55800	ISO_M_DRILLING_AXIS_IS_Z	-	-			
-	Drilling axis depends on the plane / always Z	BYTE	Immediately			
-						
-	-	0	0	1	7/6	M

**Description:** Selection of the drilling axis  
 0: drilling axis is vertical to the active plane  
 1: drilling axis is always "Z", independently of the active plane

55802	ISO_M_DRILLING_TYPE	-	-			
-	Tapping type	BYTE	Immediately			
-						
-	-	0	0	3	7/6	M

**Description:** Tapping type  
 0: tapping without compensating chuck  
 1: tapping with compensating chuck  
 2: deep hole tapping with chip breakage  
 3: deep hole tapping with stock removal

55804	ISO_M_RETRACTION_FACTOR	-	-			
%	Factor for retraction speed (0...200%)	DWORD	Immediately			
-						
-	-	100	0	200	7/6	M

**Description:** Factor for retraction speed (0...200%)

55806	ISO_M_RETRACTION_DIR	-	-			
-	Retraction direction at G76/87	BYTE	Immediately			
-						
-	-	0	0	4	7/6	M

**Description:** Retraction direction for precision drilling and reverse countersinking G76/G87  
 0: G17(-X) G18(-Z) G19(-Y)  
 1: G17(+X) G18(+Z) G19(+Y)

1.6 Compile cycles

- 2: G17(-X) G18(-Z) G19(-Y)
- 3: G17(+Y) G18(+X) G19(+Z)
- 4: G17(-Y) G18(-X) G19(-Z)

55808	ISO_T_RETRACTION_FACTOR			-	-	
%	Factor for retraction speed			DWORD	Immediately	
-						
-	-	100	0	200	7/6	M

**Description:** Factor (1-200%) for retraction speed at tapping G84/G88

55810	ISO_T_DWELL_TIME_UNIT			-	-	
-	Dwell time evaluation			BYTE	Immediately	
-						
-	-	0	0	1	7/6	M

**Description:** Dwell time evaluation for deep hole drilling G83/G87  
 0: seconds  
 1: revolutions

## 1.6 Compile cycles

Number	Identifier			Display filters	Reference	
Unit	Name			Data type	Active	
Attributes						
System	Dimension	Default value (LIN/ROT)	Minimum value (LIN/ROT)	Maximum value (LIN/ROT)	Protection	Class

**Description:** Description

61516	CC_PROTECT_PAIRS			-	-	
-	Axis collision protection configuration			DWORD	Reset	
-						
-	8	0	0	0	7/2	M

**Description:** This MD defines the axis pairs that must be protected against mutual collision. The machine axis number of the first axis is entered in the decades of 1s and 10s. The number of the second machine axis must be entered in the decades of 100s and 1000s.  
 Example:  
`$MN_CC_PROTECT_PAIRS[0] = 1201 ; axis_1 = 1 axis_2 = 12`  
 When zero is entered, collision protection is deactivated.

61517	CC_PROTECT_SAFE_DIR	-	-			
-	Axis collision protection. Definition of the retraction direction.	DWORD	Reset			
-						
-	8	0	0	0	7/2	M

**Description:** In this MD the direction of retraction for both axes of a collision-protected axis pair is entered. Entry in the decade of 1s and 10s defines the direction of retraction of the first axis. Entry in the decade of 100s and 1000s defines that of the second axis. A value > 0 means retraction in the plus direction. 0 means retraction in the minus direction.

The value can only be changed only if collision protection for the axis pair is inactive!

61518	CC_PROTECT_OFFSET	-	-			
mm, degrees	Axis collision protection. Position offset	DOUBLE	Reset			
-						
-	8	0.0	0.0	0.0	7/2	M

**Description:** Position offset for the collision detection of the two axes defined in MD\_60972.

The following applies to calculation of distance d between axes AX1 and AX2:  
 $d = \text{abs}(\text{POS}[\text{AX1}] + \$\text{MN\_CC\_PROTECT\_OFFSET}[\text{n}] - \text{POS}[\text{AX2}])$

The axis collision protection function guarantees that the following condition is always fulfilled:  
 $d > \$\text{MN\_CC\_PROTECT\_WINDOW} + \$\text{MN\_CC\_PROTECT\_WINDOW\_INCR}[\text{n}]$

This considers the current axis velocities and the acceleration/braking capacities of the axes in order to be able to brake the axes in time if required.

The value can be changed only if collision protection for the axis pair is inactive!

61519	CC_PROTECT_WINDOW	-	-			
mm, degrees	Axis collision protection. Minimum distance	DOUBLE	Reset			
-						
-	8	10.0	0.0	10000.0	7/2	M

**Description:** Minimum distance that must be kept by the axes.

The value can be changed even if the protection is active. In this case, however, the axes must have a safe distance between them.

61532	CC_PROTECT_DIR_IS_REVERSE	-	-			
-	Axis collision protection. Detection of the reversed direction.	DWORD	Reset			
-						
-	8	0	-	-	7/2	M

**Description:** This machine data is used to detect the reversed direction of the axes of a collision-protected pair of axes.

## 1.6 Compile cycles

61533	CC_PROTECT_WINDOW_EXTENSION			-	-	
mm, degrees	Axis collision protection. Increase in the minimum distance			DOUBLE	NEW CONF	
-						
-	8	10.0	0.0	10000.0	7/2	M

**Description:** Increasing the distance that must be kept from the axes.  
The value can be changed even if the protection is active in the part program.

61534	CC_PROTECT_A_DBD_INDEX			-	-	
-	Axis collision protection. Defining the \$A_DBD index			DWORD	Reset	
-						
-	-	-1	-	-	7/2	M

**Description:** The global axis screen form of axes, where braking operations are initiated due to the violation of the protection window, is mapped to variable \$A\_DBD. The index is defined using this machine data. For index -1, an axis screen form is not output.

62500	CLC_AXNO			-	-	
-	Axis assignment for clearance control			DWORD	PowerOn	
-						
-	-	0	-2	CC_MAXNUM_ AXES_PER_CHAN	7/2	M

**Description:** n=0: Deactivates the clearance control  
n > 0:  
Activates the 1D clearance control for the channel axis with the axis number indicated under n. This axis must not be a modulo rotary axis.  
n < 0: Activates the 3D clearance control.  
Activation of the 3D clearance control requires configuration of at least one of the two possible 5-axis transformations in the channel.  
-1: with n = -1 the first 5-axis transformation (16 ≤ transformer type ≤ 149) configured with \$MC\_TRAFO\_TYPE\_n in the 1st channel is selected for clearance control.  
-2: with n = -2 the second 5-axis transformation configured in the 1st channel is selected.  
The overlaid motion acts on the axes configured as linear axes in the first three elements of \$MC\_TRAFO\_AXES\_IN\_n of the selected transformation.  
Configuration of 3- and 4-axis transformations is permissible (2D clearance control).  
Restriction:

- Only one of the linear axes involved in clearance control must be configured as master axis of a gantry grouping.
- No axis of the clearance control must be configured as slave axis of a gantry grouping.
- Erroneous configurations are rejected after power ON with CLC alarm 75000.



62502	CLC_ANALOG_INPUT	-	-			
-	Analog input for clearance control	DWORD	-			
-						
-	-	1	1	8	7/2	M

**Description:** The machine data defines the number of the analog input that is used for the clearance sensor.

Differing from the functions realized in the interpolator (synchronized actions) the input of the clearance control cannot be influenced via PLC interface DB10 DBW148ff.

62504	CLC_SENSOR_TOUCHED_INPUT	-	-			
-	Input bit assignment for "Sensor collision" signal	DWORD	PowerOn			
-						
-	-	0	-40	40	7/2	M

**Description:** This machine data defines the digital input that is used for collision detection.

Requirements:

- The clearance sensor has a "sensor collision" signal.
- The numbering of the digital inputs corresponds to the numbering of the corresponding system variables:  $\$A\_IN[n]$ , with  $n$  = number of the digital input.
- Example: 3rd input on the 2nd input byte:  $\$MC\_CLC\_SENSOR\_TOUCHED\_INPUT = 11 ; 3 + 1 * 8$

Negative values result in the corresponding input signal being used internally inverted (fail-safe).

See section 2.4, /TE1/ for sensor collision detection.

62505	CLC_SENSOR_LOWER_LIMIT	-	-			
mm, degrees	Lower motion limit of the clearance control	DOUBLE	Reset			
-						
-	2	-5.0, -10.0	-1.0e40	0.0	7/2	M

**Description:** This machine data consists of 2 field elements:

- CLC\_SENSOR\_LOWER\_LIMIT[0]

With the first field element the lower limit for the deviation from the sensor-controlled machine position from the programmed position is entered.

As soon as the limit is reached, PLC signal DB21.DBX37.4 is set and CLC alarm 75020 is displayed:

- CLC\_SENSOR\_LOWER\_LIMIT[1]

The second field element limits the value of the maximum lower motion limit that can be programmed.

62506	CLC_SENSOR_UPPER_LIMIT	-	-
mm, degrees	Upper motion limit of the clearance control	DOUBLE	Reset
-			
-	2	+10.0, +40.0	0.0 +1.0e40 7/2 M

**Description:**

This machine data consists of 2 field elements:

- CLC\_SENSOR\_UPPER\_LIMIT[0]

With the first field element the upper limit for the deviation from the sensor-controlled machine position from the programmed position is set.

As soon as the limit is reached, PLC signal DB21.DBB37.5 is set and CLC alarm 75021 is displayed.

- CLC\_SENSOR\_UPPER\_LIMIT[1]

The second field element limits the value of the maximum upper motion limit that can be programmed.

62508	CLC_SPECIAL_FEATURE_MASK	-	-
-	Special functions and CLC modes	DWORD	PowerOn
-			
-	-	0x3	- - - 7/2 M

**Description:**

Bit 0 and bit 1:

Alarm reaction on reaching the CLC motion limits: This machine data configures the alarm reaction on reaching the motion limits set with MD 62505 and MD 62506 or programmed with CLC\_LIM .

Bit 0 = 0: Alarm 75020 does not stop program execution. The alarm can be acknowledged by pressing the Cancel key.

Bit 0 = 1: Alarm 75020 stops program execution at the lower limit. The alarm can only be acknowledged with reset.

Bit 1 = 0: Alarm 75021 does not stop program execution. The alarm can be acknowledged by pressing the Cancel key.

Bit 1 = 1: Alarm 75021 stops program execution at the upper limit. The alarm can only be acknowledged with reset.

Bit 4:

Operation as online tool length compensation in orientation direction

Bit 4 = 0: Clearance control works as usual.

Bit 4 = 1: Unlike the clearance control mode the analog input does not specify a velocity, but directly an offset position instead. In this case, the ordinate of the selected sensor characteristic \$MC\_CLC\_SENSOR\_VELO\_TABLE\_x is interpreted in mm or inch instead of in mm/min (inch/min).

This operating mode can be used for testing purposes and for implementing a 3D tool length compensation. The analog value is thereby not read in position controller cycle, but in IPO cycle. In this operating mode, a normal influence or definition of the analog values by the PLC is possible via DB10 DBW148ff. The input used must have been activated through the following machine data: MD 10300 \$MN\_FASTIO\_ANA\_NUM\_INPUTS

Bit 5:

Mode for rapid retraction in position controller cycle

Bit 5 = 0: Clearance control works as usual.

Bit 5 = 1: The analog input is inactive. If the digital input configured with MD 62504 is activated (inverted, if required), a retraction motion will start in the same position controller cycle that corresponds to an analog signal specification of +10V during operation as "Online tool length compensation" (see bit 4).

The digital input signal that starts the retraction movement cannot be influenced by the PLC. In addition to the reaction in the position controller, the input "sensor collision" and the subsequent stop of the path motion is handled in the interpolator. This signal branch can be influenced by the PLC through default signals DB10 DBB0ff.

Bit 8:

Mode for alarm output when the lower motion limit is reached.

Bit 8 = 0: Alarm 75020 is displayed.

Bit 8 = 1: Alarm 75020 will not be displayed, if the alarm reaction after reaching of the CLC movement limits (bit 0) was configured without program execution stop: bit 0 = 0

Bit 9:

Mode for alarm display when the upper motion limit is reached.

Bit 9 = 0: Alarm 75021 is displayed.

Bit 9 = 1: Alarm 75021 will not be displayed, if the alarm reaction on reaching the CLC motion limits (bit 0) was configured without program execution stop: bit 1 = 0

Bit 14:

Synchronization of the start position with single-axis clearance control.

Bit 14 = 0: If the clearance control has been configured for one axis only (MD62500), the current actual position of the next part program block on clearance control power OFF with CLC(0) is synchronized for this axis only.

Bit 14 = 1: If the clearance control has been configured for one axis only (MD62500), the current actual positions of the next part program block on clearance control power OFF with CLC(0) are synchronized for all axes.

This setting is required only for those applications for which a single-axis clearance control is used together with a 3/4/5-axis transformation (e.g. pipe cutting with rotating workpiece) and when an axis jump in the CLC axis or alarm: "Channel %1 Axis %2 System error 550010" occur at the first traversing block after CLC (0).

62510	CLC_SENSOR_VOLTAGE_TABLE_1			-	-	
V	Coordinate voltage sensor characteristic 1			DOUBLE	Reset	
-						
-	2	-10.0, 10.0, 0.0, 0.0, 0.0	-10.0	10.0	7/2	M

**Description:** This machine data defines the voltage values of sensor characteristic 1. The corresponding velocity value must be entered under the same index i of this machine data:

MD62511 \$MC\_CLC\_SENSOR\_VELO\_TABLE\_1[i]

For the simplest case it will suffice to define the characteristic via two interpolation points as a symmetrical straight through the zero point:

Example:

- \$MC\_CLC\_SENSOR\_VOLTAGE\_TABLE\_1[ 0 ] = -10.0 ; Volt
- \$MC\_CLC\_SENSOR\_VOLTAGE\_TABLE\_1[ 1 ] = 10.0; Volt
- \$MC\_CLC\_SENSOR\_VELO\_TABLE\_1[ 0 ] = 500.0; mm/min
- \$MC\_CLC\_SENSOR\_VELO\_TABLE\_1[ 1 ] = -500.0; mm/min

For all field elements of the machine data not used in the example value 0.0 must be set.

1.6 Compile cycles

If the defined sensor characteristic creates an incorrect control direction, i.e. after power ON of the clearance control the sensor "flees" from the workpiece, the control direction can be corrected either by reversing the polarity of the sensor signal at the I/O module, or by changing the sign in front of the voltage values in the machine data.

Notes on how to define the sensor characteristic:

- A point with velocity value 0 must not stand at the end of the table.
- The characteristic must be monotonic, i.e. the velocity values above the voltage must either only rise or only fall.
- The characteristic must not have any jumps in the velocity sequence, i.e. it is not permissible to define different velocities for the same voltage value.
- The characteristic must have at least two interpolation points.
- Do not enter more than 5 interpolation points (3 for 840D prior to SW 5.3) with positive or with negative velocity.
- Characteristics that do not go directly through the zero point may influence the clearance normalization set on the clearance sensor.

62511	CLC_SENSOR_VELO_TABLE_1			-	-	
mm/min	Coordinate velocity sensor characteristic 1			DOUBLE	Reset	
-						
-	2	2000.0/60.0, -2000.0/60.0, 0.0...	-	-	7/2	M

**Description:** This machine data defines the velocity values of sensor characteristic 1. The corresponding voltage value must be entered under the same index i of the machine data:

```
MD62510 $MC_CLC_SENSOR_VOLTAGE_TABLE_1[i]
```

Additional information on how to define the characteristic is available in the description of machine data MD62510.

62512	CLC_SENSOR_VOLTAGE_TABLE_2			-	-	
V	Coordinate voltage sensor characteristic 2			DOUBLE	Reset	
-						
-	2	-10.0, 10.0, 0.0, 0.0, 0.0	-10.0	10.0	7/2	M

**Description:** This machine data defines the voltage values of sensor characteristic 2. Additional information on how to define the characteristic is available in the description of machine data MD62510.

62513	CLC_SENSOR_VELO_TABLE_2			-	-	
mm/min	Coordinate velocity sensor characteristic 2			DOUBLE	Reset	
-						
-	2	2000.0/60.0, -2000.0/60.0, 0.0...	-	-	7/2	M

**Description:** This machine data defines the voltage values of sensor characteristic 2. Additional information on how to define the characteristic is available in the description of machine data MD62510.

62516	CLC_SENSOR_VELO_LIMIT	-	-			
%	Velocity of the clearance control motion	DOUBLE	Reset			
-						
-	-	100.0	-200.0	200.0	7/2	M

**Description:**

1D clearance control:  
This machine data defines the maximum traversing velocity of the overlaid control motion as a percentage value of the max. residual axis velocity from the maximum value ( MD32000 \$MA\_MAX\_AX\_VELO[ AX# ] ) of the next clearance-controlled axis.

2D/3D clearance control  
With 2D or 3D clearance control the maximum velocity of the slowest clearance-controlled axis multiplied with the root of 2 or with the root of 3 is used as reference value.

62517	CLC_SENSOR_ACCEL_LIMIT	-	-			
%	Acceleration of the clearance control movement	DOUBLE	Reset			
-						
-	-	100.0	0.0	200.0	7/2	M

**Description:**

1D clearance control:  
This machine data defines the maximum acceleration of the overlaid control motion as a percentage value of the max. residual axis velocity from the maximum value ( MD32300 \$MA\_MAX\_AX\_ACCEL[ AX# ] ) of the next clearance-controlled axis.

2D/3D clearance control:  
With 2D or 3D clearance control the maximum velocity of the slowest clearance-controlled axis multiplied with the root of 2 or with the root of 3 is used as reference value.

62520	CLC_SENSOR_STOP_POS_TOL	-	-			
mm, degrees	Pos. tolerance for status report "CLC standstill"	DOUBLE	Reset			
-						
-	-	0.05	0.0	1.0e40	7/2	M

**Description:**

With the clearance control active and in order to achieve the exact stop condition (G601/G602), not only the axis involved in the programmed traversing motion, but also the clearance-controlled axes must have reached their exact stop conditions.

The exact stop condition of the clearance control is defined via a position window and a dwelltime:

- MD62520 \$MC\_CLC\_SENSOR\_STOP\_POS\_TOL
- MD62521 \$MC\_CLC\_SENSOR\_STOP\_DWELL\_TIME

If the clearance control or the clearance-controlled axes are within the position tolerance during the parameterized dwell time, the exact stop condition of the clearance control is fulfilled.

Setting notes:

If the clearance control should not be able to keep the parameterized position window for the corresponding dwell time, the following alarm will be displayed in certain situations:

- Alarm "1011 Channel Channel number System error 140002"

1.6 Compile cycles

In order to avoid the alarm or in case the alarm occurred, the following measures must be taken:

1. Switch on the clearance control with the typical machining clearance between the clearance sensor and a small metal sheet.
2. Tap on the metal sheet so that the laser head performs visible adjustment motions. After these adjustment movements are completed, do not touch the metal sheet again.
3. If the interface signal DB3x.DBX60.7 (position reached with fine exact stop) "flickers" after the tapping or after release of the process gas, the following machine data will have to be adjusted:
  - MD36010 \$MA\_STOP\_LIMIT\_FINE (increase)
  - MD62520 \$MC\_CLC\_SENSOR\_STOP\_POS\_TOL (increase)
  - MD62521 \$MC\_CLC\_SENSOR\_STOP\_DWELL\_TIME (shorten)

The changes to the machine data will become active only after NCK RESET. The clearance control therefore may have to be switched on again after NC start.

62521	CLC_SENSOR_STOP_DWELL_TIME	-	-			
s	Wait time for "CLC standstill"	DOUBLE	Reset			
-						
-	-	0.1	0.0	1.0e40	7/2	M

**Description:** This machine data defines the dwell time for reaching the exact stop conditions of the clearance control.  
 The corresponding position tolerance must be entered in machine data:

- MD62520 \$MC\_CLC\_SENSOR\_STOP\_POS\_TOL

Additional information on the exact stop condition of the clearance control is available in the description of machine data MD62520.  
 Related to:  
 The set dwell time must not be longer than the maximum delay for reaching the exact stop condition parameterized in the following machine data:

- MD36020 \$MA\_POSITIONING\_TIME

62522	CLC_OFFSET_ASSIGN_ANAOUT	-	-			
-	Assignment of internal additional analog value to sensor signal	DWORD	PowerOn			
-						
-	-	0	-1020008, -8	1020008, 8	7/2	M

**Description:** This machine data defines the analog output, the output value of which is subtracted from the input voltage of the clearance sensor.  
 The numbering of the analog output corresponds to the numbering of the relevant system variables: \$A\_OUTA[n], with n = number of the analog output.  
 The analog output can be used through variable \$A\_OUTA[n] both block-synchronous from a part program or asynchronous via a synchronized action.

62523	CLC_LOCK_DIR_ASSIGN_DIGOUT	-	-			
-	Assignment digital output interlocking CLC	DWORD	PowerOn			
-						
-	2	0, 0	-40	40	7/2	M

**Description:**

This machine data consists of 2 field elements:

- CLC\_LOCK\_DIR\_ASSIGN\_DIGOUT[0]

The first field element defines the digital output through which the negative motion direction of the clearance control can be locked.

- CLC\_LOCK\_DIR\_ASSIGN\_DIGOUT[1]

The second field element defines the digital output through which the positive motion direction of the clearance control can be locked.

Entering the negative output number will invert the evaluation of the switching signal.

Example:

Digital output 1 (\$A\_OUT[1]) shall lock the negative motion direction; digital output 2 (\$A\_OUT[2]) shall lock the positive motion direction:

- MD 62523 \$MC\_CLC\_LOCK\_DIR\_ASSIGN\_DIGOUT[0] = 1
- MD 62523 \$MC\_CLC\_LOCK\_DIR\_ASSIGN\_DIGOUT[1] = 2

With the corresponding system variables interlocking of the relevant motion direction can be switched on or off either block-synchronous in the part program or asynchronous via synchronized actions.

- Interlock of the negative motion direction ON/OFF: \$A\_OUT[1] = 1 / 0
- Interlock of the positive motion direction ON/OFF: \$A\_OUT[2] = 1 / 0

With switching signal inversion (MD 62523 \$MA\_CLC\_LOCK\_DIR\_ASSIGN\_DIGOUT[0] = -1):

Interlock of the negative motion direction ON/OFF: \$A\_OUT[1] = 0 / 1

62524	CLC_ACTIVE_AFTER_RESET	-	-			
-	Clearance control active after RESET	BOOLEAN	PowerOn			
-						
-	-	FALSE	-	-	7/2	M

**Description:**

1D clearance control:

This machine data parameterizes the RESET behavior (program end RESET or NC RESET) of the 1D clearance control.

- CLC\_ACTIVE\_AFTER\_RESET = 0: after RESET the clearance control is switched off analog to the part program command CLC(0).
- CLC\_ACTIVE\_AFTER\_RESET = 1: after RESET the clearance control maintains its current activation status.

3D clearance control:

This machine data does not effective with a 3D clearance control. The clearance control will in this case always be switched off after RESET.

62525	CLC_SENSOR_FILTER_TIME	-	-			
s	Time constant of PT1 sensor filtering	DOUBLE	Immediately			
-						
-	-	0.0	0.0	10.0	7/2	M

**Description:** This machine data parameterizes the time constant for the PT1 filter of the clearance control (corresponds to an RC element).  
 With the PT1 filter, the higher-frequency noise components in the input signal of the clearance control can be diminished.  
 The filter's effect can be observed through the function-specific display data (see section 2.7, /TE1/).  
 A value of zero switches the filter off completely.  
 Note:  
 Any additional time constant in the control loop reduces the max. achievable control loop dynamics.

62528	CLC_PROG_ORI_AX_MASK	-	-			
-	Axis screen for CLC with free direction specification	DWORD	PowerOn			
-						
-	-	0x0	-	-	7/2	M

**Description:** Each bit of the axis screen refers to the channel axis[n+1] depending on its bit index n. Only exactly 3 bits may be set according to the three direction axes of the compensation vector. The bits are evaluated in ascending order.  
 The first channel axis parameterized like that corresponds to the X coordinate of the compensation vector. The second channel axis to the Y coordinate, and so on.

62529	CLC_PROG_ORI_MAX_ANGLE	-	-			
degrees	Limit angle for CLC with free direction specification	DOUBLE	Reset			
-						
-	-	45.0	0.0	180.0	7/2	M

**Description:** Permissible limit angle between tool orientation and CLC direction defined freely through additional axes.

62530	CLC_PROG_ORI_ANGLE_AC_PARAM	-	-			
-	Index of the display variables f. the current differential angle	DWORD	Reset			
-						
-	-	-1	-1	20000	7/2	M

**Description:** Index n of system variable \$AC\_PARAM[n] in which the current differential angle between tool orientation and CLC direction is output.

62560	FASTON_NUM_DIG_OUTPUT	-	-			
-	Configuration of the switching output	BYTE	PowerOn			
-						
-	-	0	0	4	7/2	M

**Description:** This machine data assigns the number of the digital onboard output (1...4) to the NCU, on which the fast switching signal is output.  
 Output of the switching signal is deactivated with 0.



62561	FASTON_OUT_DELAY_MICRO_SEC			-	-	
-	still missing			DWORD	NEW CONF	
-						
-	2	0, 0	-5000	5000	7/2	M

**Description:** This MD enables separate specification of time delay values for the switch-on and switch-off edge of the fast switching signal.

\$MC\_FASTON\_OUT\_DELAY\_MICRO\_SEC[0] Time delay of the switch-on edge  
\$MC\_FASTON\_OUT\_DELAY\_MICRO\_SEC[1] Time delay of the switch-off edge

Negative values create a derivative action time for signal output. Positive values cause the output to be delayed. Derivative action time or delay are used to compensate external switching delays. The values must be determined empirically and should not exceed a few 100 microseconds. Values that are larger than approx. a half position control cycle clock will possibly not have a correct effect.

62571	RESU_RING_BUFFER_SIZE			-	-	
-	RESU ring buffer size (block buffer)			DWORD	PowerOn	
-						
-	-	1000	10	1000000	7/2	M

**Description:** The block buffer includes the geometrical information for the part program. The value entered in the machine data corresponds to the number of loggable part program blocks (with 32 byte / part program block). The block buffer size corresponds to the number of retrace-capable blocks.

62572	RESU_SHARE_OF_CC_HEAP_MEM			-	-	
%	RESU share of the parameterized heap memory			DOUBLE	PowerOn	
-						
-	-	100.0	1.0	100.0	7/2	M

**Description:** The total heap memory size available for all compile cycles is parameterized by channel-specific machine data MD 28105 \$MC\_MM\_NUM\_CC\_HEAP\_MEM

The RESU machine data can limit the maximum heap memory share that RESU is to use.

62573	RESU_INFO_SA_VAR_INDEX			-	-	
-	RESU indices of the synchronized action variables used			DWORD	PowerOn	
-						
-	2	-1	-1	10000	7/2	M

**Description:** Reserved. This machine data must not be used.

62574	RESU_SPECIAL_FEATURE_MASK	-	-
-	RESU parameterizable behavior	DWORD	PowerOn
-			
-	-	0x0	0x0
-		0x0f	7/2
			M

**Description:** With bit settings parameterizable behavior of the RESU function:

Bit 0:reserved. Do not use!

Bit 1:

Bit 1 = 0:(default) RESU main program CC\_RESU.MPF is created in the dynamic memory area of the NC (DRAM) (recommended setting)

Bit 1 = 1:RESU main program CC\_RESU.MPF is created in the buffered part program memory of the NC(SRAM).

Bit 2:

Bit 2 = 0:(default)

The following RESU-specific subroutines are created as user cycles:

- CC\_RESU\_INI.SPF
- CC\_RESU\_END.SPF
- CC\_RESU\_BS\_ASUP.SPF
- CC\_RESU\_ASUP.SPF

Bit 2 = 1:(recommended setting)

The RESU-specific subroutines (see above) are created as OEM cycles.

Bit 3:

Bit 3 = 0: (default)

No effect (see under bit 3 = 1).

Bit 3 = 1: (recommended setting, if bit 2 = 1)

If the RESU-specific subroutines (see above) are created as OEM cycles and if during NC start RESU-specific subroutines are nevertheless available as user cycles, these will be canceled without prior checkback.

62575	RESU_SPECIAL_FEATURE_MASK_2	-	-
-	RESU additional parameterizable behavior	DWORD	Reset
-			
-	-	0x0	0x0
-		0x01	7/2
			M

**Description:** With bit settings parameterizable behavior of the RESU function:

Bit 0:

Bit 0 = 0: (default)

For continued machining at the contour, a block search with contour calculation beginning at the part program start is used (recommended setting).

Bit 0 = 1:In order to accelerate that machining is continued, 2 different block search types are used:

- From part program start to the last main block: block search without calculation
- From the last main block to the current part program block: block search with contour calculation

62580	RESU_WORKING_PLANE	-	-			
-	RESU determination of the working plane	DWORD	NEW CONF			
-						
-	-	1	1	3	7/2	M

**Description:** These machine data determine the working plane for the 2-dim. function RESU. The following settings are possible:

- 1 : for working plane G17 ( first and second geometry axis)
- 2 : for working plane G18 ( first and third geometry axis)
- 3 : for working plane G19 ( second and third geometry axis)

62600	TRAF06_KINCLASS	-	-			
-	Kinematics class	DWORD	NEW CONF			
-						
-	-	1	1	2	7/2	M

**Description:** The following kinematics classes can be indicated:

- Standard transformation: 1
- Special transformation: 2

62601	TRAF06_AXES_TYPE	-	-			
-	Axis type for transformation [axis no.]: 0...5	DWORD	NEW CONF			
-						
-	6	1, 1, 1, 3, 3, 3	1	4	7/2	M

**Description:** This machine data identifies the axis type used in the transformation. The following axis types can be indicated:

- Linear axis: 1
- Delta/acme spindle drive: 2
- Rotary axis: 3 (4)

62602	TRAF06_SPECIAL_KIN	-	-			
-	Special kinematics type	DWORD	NEW CONF			
-						
-	-	1	-	-	7/2	M

**Description:** This machine data identifies the type of special kinematics.

The following special kinematics are available:

- No special kinematics:1
- 5-axis articulated arm with coupling of axis 2 to axis 3: 2
- 2-axis SCARA with forced coupling to tool: 3
- 3-axis SCARA with degrees of freedom X, Y, A: 4
- 2-articulated arm with coupling of axis 1 to axis 2: 5
- 2-axis articulated arm without coupling of axis 1 to axis 2: 8
- 4-axis SCARA with coupling of axis 1 to axis 2: 7

## 1.6 Compile cycles

62603	TRAF06_MAIN_AXES	-	-			
-	Basic axis identification	DWORD	NEW CONF			
-						
-	-	1	1	7	7/2	M

**Description:** This machine data identifies the type of basic axis assignment. Normally, the first 3 axes are the basic axes.

The following basic axis assignments are included:

- SS (gantry): 1
- CC (SCARA): 2
- NR (articulated arm): 3
- SC (SCARA): 4
- RR (articulated arm): 5
- CS (SCARA): 6
- NN (articulated arm): 7

62604	TRAF06_WRIST_AXES	-	-			
-	Identification of the hand axes	DWORD	NEW CONF			
-						
-	-	1	1	6	7/2	M

**Description:** This machine data identifies the robot hand type. Normally, axes 4 to 6 are the robot hand.

The following hand types are included:

- No hand: 1
- Central hand: 2
- Beveled hand: 3
- Hand with elbow: 5
- Beveled hand with elbow: 6

62605	TRAF06_NUM_AXES	-	-			
-	Number of transformed axes	DWORD	NEW CONF			
-						
-	-	3	2	6	7/2	M

**Description:** This machine data identifies the number of axes involved in the transformation.

Package 2.3 (810D) or 4.3 (840D) support kinematics with a max. of 5 axes.

62606	TRAF06_A4PAR	-	-			
-	Axis 4 parallel / antiparallel to the last basic axis	DWORD	NEW CONF			
-						
-	-	0	0	1	7/2	M

**Description:** This machine data identifies whether the 4th axis is parallel / antiparallel to the last rotary basic axis.

This machine data only applies for kinematics with more than 3 axes.

- Axis 4 is parallel / antiparallel: 1
- Axis 4 is not parallel: 0

62607	TRAF06_MAIN_LENGTH_AB	-	-			
mm	Basic axis length A and B, n = 0..1	DOUBLE	NEW CONF			
-						
-	2	0.0, 500.0	-	-	7/2	M

**Description:** This machine data identifies the basic axis lengths A and B. These lengths are particularly defined for each basic axis type.

- n = 0: basic axis length A
- n = 1: basic axis length B

62608	TRAF06_TX3P3_POS	-	-			
mm	Attachment of the hand (position share), n = 0..2	DOUBLE	NEW CONF			
-						
-	3	0.0, 0.0, 0.0	-	-	7/2	M

**Description:** This machine data identifies the position share of frame TX3P3 connecting the basic axes with the hand.

- Index 0: X component
- Index 1: Y component
- Index 2: Z component

62609	TRAF06_TX3P3_RPY	-	-			
degrees	Attachment of the hand (rotation share), n = 0..2	DOUBLE	NEW CONF			
-						
-	3	0.0, 0.0, 0.0	-	-	7/2	M

**Description:** This machine data identifies the orientation share of frame TX3P3 connecting the basic axes with the hand.

- Index 0: rotation with RPY angle A
- Index 1: rotation with RPY angle B
- Index 2: rotation with RPY angle C

62610	TRAF06_TFLWP_POS	-	-			
mm	Frame between hand pt. and flange coordinate system, n = 0..2	DOUBLE	NEW CONF			
-						
-	3	0.0, 0.0, 0.0	-	-	7/2	M

**Description:** This machine data identifies the position share of frame TFLWP that connects the hand point with the flange.

- Index 0: X component
- Index 1: Y component
- Index 2: Z component

62611	TRAF06_TFLWP_RPY	-	-			
degrees	Frame between hand point and flange coordinate system, n = 0..2	DOUBLE	NEW CONF			
-						
-	3	0.0, 0.0, 0.0	-	-	7/2	M

**Description:** This machine data identifies the orientation share of frame TFLWP that connects the hand point with the flange.

- Index 0: rotation with RPY angle A
- Index 1: rotation with RPY angle B
- Index 2: rotation with RPY angle C

## 1.6 Compile cycles

62612	TRAF06_TIRORO_POS	-	-
mm	Frame between foot pt. and int. coordinate system, n = 0...2	DOUBLE	NEW CONF
-			
-	3	0.0, 0.0, 0.0	-
			7/2 M

**Description:** This machine data identifies the position share of frame TIRORO that connects the basic coordinate system with the internal transformation coordinate system.

- Index 0: X component
- Index 1: Y component
- Index 2: Z component

62613	TRAF06_TIRORO_RPY	-	-
degrees	Frame between foot pt. and int. coordinate system, n = 0...2	DOUBLE	NEW CONF
-			
-	3	0.0, 0.0, 0.0	-
			7/2 M

**Description:** This machine data identifies the orientation share of frame TIRORO that connects the basic coordinate system with the internal transformation coordinate system.

- Index 0: rotation with RPY angle A
- Index 1: rotation with RPY angle B
- Index 2: rotation with RPY angle C

62614	TRAF06_DHPAR4_5A	-	-
mm	Parameter A for configuration of the hand, n = 0...1	DOUBLE	NEW CONF
-			
-	2	0.0, 0.0	-
			7/2 M

**Description:** This machine data identifies length a.

- n = 0: transition axis 4 to 5
- n = 1: transition axis 5 to 6

62615	TRAF06_DHPAR4_5D	-	-
mm	Parameter D for configuration of the hand, n = 0...1	DOUBLE	NEW CONF
-			
-	2	0.0, 0.0	-
			7/2 M

**Description:** This machine data identifies length d.

- n = 0: transition axis 4 to 5
- n = 1: transition axis 5 to 6

62616	TRAF06_DHPAR4_5ALPHA	-	-
degrees	Parameter ALPHA for configuration of the hand, n = 0...1	DOUBLE	NEW CONF
-			
-	2	-90.0, 90.0	-
			7/2 M

**Description:** This machine data identifies angle alpha

- n = 0: transition axis 4 to 5
- n = 1: transition axis 5 to 6

62617	TRAFO6_MAMES			-	-	
-	Offset of math. to mech. zero point [axis no.]: 0...5			DOUBLE	NEW CONF	
-						
-	6	0.0, 0.0, 0.0, 0.0, 0.0, 0.0	-	-	7/2	M

**Description:** This machine data can specify an adjustment of the zero point for a rotary axis to the mathematical zero point specified by the transformation.  
Based on the mechanical zero point the offset is hereby related to the mathematically positive direction of axis rotation.

62618	TRAFO6_AXES_DIR			-	-	
-	Adjustm. of the phys. and math. dir. of rot. [axis no.]: 0...5			DWORD	NEW CONF	
-						
-	6	1, 1, 1, 1, 1, 1	-1	1	7/2	M

**Description:** This machine data can adjust the mathematical and physical direction of rotation of the axes.

- +1: same direction of rotation
- -1: different direction of rotation

62619	TRAFO6_DIS_WRP			-	-	
mm	Medium distance between hand point and singularity			DOUBLE	NEW CONF	
-						
-	-	10.0	0.00001	999999.9999	7/2	M

**Description:** Through this machine data a limit value for the distance between the hand point and the singularity can be entered.  
Inactive!

62620	TRAFO6_AXIS_SEQ			-	-	
-	Axis reorganization			DWORD	NEW CONF	
-						
-	6	1, 2, 3, 4, 5, 6	1	6	7/2	M

**Description:** This machine data can reverse the order of the axes in order to internally transfer a kinematic system into a standard kinematic system.

62621	TRAFO6_SPIN_ON			-	-	
-	Triangular or acme-screw spindles available			DWORD	NEW CONF	
-						
-	-	0	0	1	7/2	M

**Description:** This machine data identifies whether triangular spindles or acme connections are available.

- 0: not available
- 1: available

This function is currently not supported.  
MD62621 must be set to 0. Machine data MD62622 through MD62628 are thus inactive!

## 1.6 Compile cycles

62622	TRAFO6_SPIND_AXIS	-	-
-	Axis on which the triangular spindle has an effect, n = 0...2	DWORD	NEW CONF
-			
-	3	0, 0, 0	- - 7/2 M

**Description:** This machine data identifies for which axis a triangular spindle is active. A maximum of 3 triangular spindles may be available.

- n = 0: 1st triangular axis
- n = 1: 2nd triangular axis
- n = 2: 3rd triangular axis

62623	TRAFO6_SPINDLE_RAD_G	-	-
mm	Length G for triangular spindle, n = 0...2	DOUBLE	NEW CONF
-			
-	3	0.0, 0.0, 0.0	- - 7/2 M

**Description:** This machine data identifies length G for the n-th triangular spindle.

62624	TRAFO6_SPINDLE_RAD_H	-	-
mm	Length H for triangular spindle, n = 0...2	DOUBLE	NEW CONF
-			
-	3	0.0, 0.0, 0.0	- - 7/2 M

**Description:** This machine data identifies length H for the n-th triangular spindle.

62625	TRAFO6_SPINDLE_SIGN	-	-
-	Sign for triangular spindle, n = 0...2	DWORD	NEW CONF
-			
-	3	1, 1, 1	-1 1 7/2 M

**Description:** This machine data identifies the sign for the adjustment of the direction of rotation for the n-th triangular spindle.

62626	TRAFO6_SPINDLE_BETA	-	-
degrees	Angular offset for triangular spindles, n = 0...2	DOUBLE	NEW CONF
-			
-	3	0.0, 0.0, 0.0	- - 7/2 M

**Description:** This machine data identifies offset angle b for adjustment of the zero point for the n-th triangular spindle.

62627	TRAFO6_TRP_SPIND_AXIS	-	-
-	Axes driven by acme spindle, n = 0...1	DWORD	NEW CONF
-			
-	2	0, 0	- - 7/2 M

**Description:** This machine data identifies which axes are driven by an acme connection.

- n = 0: axis driven by an acme
- n = 1: coupling axis

62628	TRAFO6_TRP_SPIND_LEN	-	-
mm	Acme length, n = 0...3	DOUBLE	NEW CONF
-			
-	4	0.0, 0.0, 0.0, 0.0	- - 7/2 M

**Description:** This machine data specifies the lengths of the acme connection.



62629	TRAFO6_VELCP	-	-
mm/min	Cartesian velocity [no.]: 0...2	DOUBLE	Immediately
-			
-	3	600000.0, 600000.0, 600000.0	-
			7/2
			M

**Description:** This machine data can specify a velocity for the Cartesian directions of traversing blocks with G0.

- n = 0: velocity in X direction
- n = 1: velocity in Y direction
- n = 2: velocity in Z direction

62630	TRAFO6_ACCCP	-	-
m/s <sup>2</sup>	Cartesian accelerations [no.]: 0...2	DOUBLE	Immediately
-			
-	3	0.5, 0.5, 0.5	0.001
			100000
			7/2
			M

**Description:** This machine data can specify an acceleration for the Cartesian directions of traversing blocks with G0.

- n = 0: velocity in X direction
- n = 1: velocity in Y direction
- n = 2: velocity in Z direction

62631	TRAFO6_VELORI	-	-
rev/min	Orientation angle velocities [no.]: 0...2	DOUBLE	Immediately
-			
-	3	1.6666, 1.6666, 1.6666	-
			7/2
			M

**Description:** This machine data can specify a velocity for the orientation angles of traversing blocks with G0.

- n = 0: velocity angle A
- n = 1: velocity angle B
- n = 2: velocity angle C

62632	TRAFO6_ACCORI	-	-
rev/s <sup>2</sup>	Orientation angle accelerations [no.]: 0...2	DOUBLE	Immediately
-			
-	3	0.00277, 0.00277, 0.00277	0.001
			100000
			7/2
			M

**Description:** This machine data can specify an acceleration for the orientation angles of traversing blocks with G0.

- n = 0: velocity angle A
- n = 1: velocity angle B
- n = 2: velocity angle C

## 1.6 Compile cycles

62634	TRAF06_DYN_LIM_REDUCE	-	-			
-	Reduction factor for velocity controller	DOUBLE	NEW CONF			
-						
-	-	1.0	0.001	1.0	7/2	M

**Description:** This MD can be used to specify a reserve for the maximum velocity, so that an excessive increase in the velocity by the velocity controller will not cause the maximum velocity to be exceeded.  
The value must be regarded as a factor that has an effect on the maximum velocity.

62635	TRAF06_VEL_FILTER_TIME	-	-			
s	Time constant for velocity controller	DOUBLE	NEW CONF			
-						
-	-	0.024	0.0	100.0	7/2	M

**Description:** This MD can be used to set the time constant for the velocity controller in the interpolator. This can avoid controller vibration.

62636	TRAF06_TFL_EXT_RPY	-	-			
degrees	Frame for rotating the flange coordinate system, n = 0...2	DOUBLE	NEW CONF			
-						
-	3	0.0, 0.0, 0.0	-	-	7/2	M

**Description:** For machines with 5 axes it was specified that the flange coordinate system must be aligned such that the tool is oriented in the X direction (robotics convention).  
With the machine data TRAF06\_TFL\_EXT\_RPY, the flange coordinate system can be aligned such that for a machine with 5 axes a tool direction in accordance with the NC convention is achieved (tool orientation in the Z direction).

- Index 0: Rotation by the RPY angle A
- Index 1: Rotation by the RPY angle B
- Index 2: Rotation by the RPY angle C

62637	TRAF06_TOOL_DIR	-	-			
-	Definition of tool direction	DWORD	NEW CONF			
-						
-	-	0	0	1	7/2	M

**Description:** This machine data identifies the tool direction for a machine with 5/6 axes

- 0: Tool orientation in the X direction (robotics convention)
- 1: Tool orientation in the Z direction (NC convention)

This machine data also affects how the rotation sequence of the virtual orientation axes is interpreted and calculated in the Handling Transformation.

- 0: Rotation sequence: 1st rotation around Z, 2nd rotation around Y', 3rd rotation around X" (does not apply for 5-axis machines)
- 1: Rotation sequence: 1st rotation around X, 2nd rotation around Y', 3rd rotation around Z" (does not apply for 5-axis machines)

63514	CC_PROTECT_ACCEL	-	-			
m/s <sup>2</sup> , rev/s <sup>2</sup>	PROT braking acceleration in the case of collision	DOUBLE	Reset			
-						
-	-	1000.0	1.0	10000.0	7/2	M

**Description:** If the axis collision protection function PROT has detected a collision, the involved axes are braked using the acceleration set in this machine data. Recommended setting: a few per cent higher than 32300\_ \$MA\_MAX\_AX\_ACCEL, provided that the dimensioning of the drive and the mechanical system allow it. Notice: the braking acceleration set here always has a BRISK effect independently of other parameterizations (e.g. parameter set, active dyn. G code)

63540	CC_MASTER_AXIS	-	-			
-	Indicates the corresponding CC_Master axis for a CC_Slave axis	DWORD	Reset			
-						
-	-	0	0	CC_MAXNUM_AXES_IN_SYSTEM	7/2	M

**Description:** By assigning a valid CC\_Master axis in this machine data, the relevant axis is defined as the CC-Slave axis of an MCS coupling. The assignment is made by entering the machine axis number of the CC\_Master axis.

The machine axis number and the axis name must be taken from the channel-specific machine data:

- 20070 \$MC\_AXCONF\_MACHAX\_USED
- 20080 \$MC\_AXCONF\_CHANAX\_NAME\_TAB

Notice:

CC\_Master and CC\_Slave must have the same axis type (linear or rotary axis).

CC\_Master and CC\_Slave must not be a spindle.

CC\_Master and CC\_Slave must not be replacement axes.

If the axes are dynamically different, it is recommended to make the axis with the lower dynamics the CC\_Master axis.

The machine data may be changed only when the coupling has been switched off.

63541	CC_POSITION_TOL	-	-			
mm, degrees	Monitoring window (only relevant to a CC_Slave axis)	DOUBLE	Reset			
-						
-	-	0.0	-	-	7/2	M

**Description:** Monitoring window of the MCS coupling. Only the entry in the machine data of the CC\_Slave axis is evaluated. The difference of the actual values between the CC\_Master and CC\_Slave must always range within this window. Otherwise an alarm will be output.

The following condition is monitored:

```
abs( ActualPos[ CC_Master ] - ( ActualPos[ CC_Slave ] + CC_Offset ) ) <= MD63541
```

with:

CC\_Offset= position difference between CC\_Master and CC\_Slave when switching on the coupling.

Monitoring is switched off by entering value 0.0

1.6 Compile cycles

63542	CC_PROTECT_MASTER	-	-			
-	Indicates the corresponding PMaster axis for a PSlave axis	DWORD	Reset			
-						
-	-	0	0	CC_MAXNUM_AXES_IN_SYSTEM	7/2	M

**Description:** By assigning a valid Protect-Master axis in this machine data the relevant axis is defined as the Protect-Slave axis. Assignment is made by entering the machine axis number of the Protect-Master axis.

The machine axis and the axis name must be taken from the channel-specific machine data:

- MD20070 \$MC\_AXCONF\_MACHAX\_USED[n-1]
- MD20080 \$MC\_AXCONF\_CHANAX\_NAME\_TAB

Notice:

Protect-Master and Protect-Slave axis must have the same axis type (linear or rotary axis).

63543	CC_PROTECT_OPTIONS	-	-			
-	Configuration of the collision protection function	DWORD	Reset			
-						
-	-	0	0	0xFF	7/2	M

**Description:** The collision protection function can be adapted to the special situation by setting the following:

Bit 0 - bit 3 for Protect-Master and Protect-Slave

Bit 0 = 1:

Retraction in PLUS

Bit 1 = 1:

Braking to avoid collision is made by increasing the max. braking acceleration by factor 1.2

Bit 2 = 1:

Monitoring can be activated even without a referenced axis

Bit 3 = 1

Reverse the direction of retraction, if the axis is the master axis

Bit 4 - bit 7 only relevant to Protect-Slave

Bit 4 = 1:

Monitoring always active (otherwise ON/OFF via PLC)

Bit 5

Reserve

Bit6

Reserve

Bit 7=1:

Display active protection in DB3x, DBX66.0

63544	CC_COLLISION_WIN	-	-			
mm, degrees	Collision protection window	DOUBLE	Reset			
-						
-	-	-1.0	-	-	7/2	M

**Description:** Minimum distance between the Protect-Slave axis and the Protect-Master axis. Only the value entered in the Slave axis is used. With a value smaller than 0, the monitoring function cannot be activated.

63545	CC_OFFSET_MASTER	-	-
mm, degrees	Work offset for collision protection	DOUBLE	PowerOn
-			
-	-	0.0	-
			7/2
			M

**Description:** Work offset for collision detection between Protect-Slave and Protect-Master axis.

The value entered for the Protect-Slave axis is used only.



# SINAMICS parameters

# 2

Product: ALL\_840, Version: 4502400, Language: eng  
 Objects: A\_INF, A\_INF\_840, B\_INF, B\_INF\_840, CU\_I\_840, CU\_LINK, CU\_NX\_840, CU\_S\_AC\_DP, CU\_S\_AC\_PN, CU\_S120\_DP, CU\_S120\_PN, ENC, ENC\_840, HUB, S\_INF, S\_INF\_840, SERVO, SERVO\_840, SERVO\_AC, TB30, TM120, TM15, TM150, TM15DI\_DO, TM17, TM31, TM41, TM54F\_MA, TM54F\_SL, VECTOR, VECTOR\_AC

<b>r0002</b>	<b>Infeed operating display</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 250	<b>Factory setting</b> -
<b>r0002</b>	<b>Infeed operating display</b>		
B_INF, B_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 250	<b>Factory setting</b> -
<b>r0002</b>	<b>Control Unit operating display</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 117	<b>Factory setting</b> -
<b>r0002</b>	<b>Encoder DO operating display</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 250	<b>Factory setting</b> -

<b>r0002</b>	<b>DRIVE-CLiQ Hub Module operating display</b>		
HUB	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1 Factory setting: -
	Min 0	Max 250	

<b>r0002</b>	<b>Drive operating display</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1 Factory setting: -
	Min 0	Max 250	

<b>r0002</b>	<b>TB30 operating display</b>		
TB30	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1 Factory setting: -
	Min 0	Max 250	

<b>r0002</b>	<b>TM120 operating display</b>		
TM120	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1 Factory setting: -
	Min 0	Max 250	

<b>r0002</b>	<b>TM15 operating display</b>		
TM15	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1 Factory setting: -
	Min 0	Max 250	

<b>r0002</b>	<b>TM150 operating display</b>		
TM150	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1 Factory setting: -
	Min 0	Max 250	



<b>r0002</b>	<b>TM15DI/DO operating display</b>		
TM15DI_DO	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1 Factory setting -
	Min 0	Max 250	
<b>r0002</b>	<b>TM17 operating display</b>		
TM17	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1 Factory setting -
	Min 0	Max 250	
<b>r0002</b>	<b>TM31 operating display</b>		
TM31	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1 Factory setting -
	Min 0	Max 250	
<b>r0002</b>	<b>TM41 operating display</b>		
TM41	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1 Factory setting -
	Min 0	Max 250	
<b>r0002</b>	<b>TM54F operating display</b>		
TM54F_MA, TM54F_SL	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1 Factory setting -
	Min 0	Max 250	
<b>p0003</b>	<b>BOP access level</b>		
CU_I_840, CU_NX_840	Can be changed: C1, U, T Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 0 Factory setting 1
	Min 1	Max 4	

<b>p0003</b>	<b>BOP access level</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1, U, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 4	<b>Factory setting</b> 1

<b>p0004</b>	<b>BOP display filter</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C2(1), U, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 99	<b>Factory setting</b> 0

<b>p0005[0...1]</b>	<b>BOP operating display selection</b>		
A_INF, B_INF, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, HUB, S_INF, SERVO, SERVO_AC, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> [0] 2 [1] 0

<b>p0006</b>	<b>BOP operating display mode</b>		
A_INF, B_INF, S_INF, SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 4	<b>Factory setting</b> 4

<b>p0006</b>	<b>BOP operating display mode</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, HUB, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, TM54F_MA, TM54F_SL	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 4	<b>Max</b> 4	<b>Factory setting</b> 4
<b>p0007</b>	<b>BOP background lighting</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [s]	<b>Max</b> 2000 [s]	<b>Factory setting</b> 0 [s]
<b>p0008</b>	<b>BOP drive object after booting</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 65535	<b>Factory setting</b> 1
<b>p0009</b>	<b>Device commissioning parameter filter</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 10000	<b>Factory setting</b> 1
<b>p0010</b>	<b>Infeed commissioning parameter filter</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 30	<b>Factory setting</b> 1

<b>p0010</b>	<b>Encoder DO commissioning parameter filter</b>		
ENC, ENC_840	Can be changed: C2(1), T	Calculated: -	Access level: 1
	Data type: Integer16	Dynamic index: -	Func. diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min 0	Max 30	Factory setting 0

<b>p0010</b>	<b>Drive commissioning parameter filter</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(1), T	Calculated: -	Access level: 1
	Data type: Integer16	Dynamic index: -	Func. diagram: 2800, 2846
	P-Group: -	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min 0	Max 10000	Factory setting 1

<b>p0010</b>	<b>TB30 commissioning parameter filter</b>		
TB30	Can be changed: C2(1), T	Calculated: -	Access level: 1
	Data type: Integer16	Dynamic index: -	Func. diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min 0	Max 30	Factory setting 0

<b>p0010</b>	<b>TM120 commissioning parameter filter</b>		
TM120	Can be changed: C2(1), T	Calculated: -	Access level: 1
	Data type: Integer16	Dynamic index: -	Func. diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min 0	Max 30	Factory setting 0

<b>p0010</b>	<b>TM15 commissioning parameter filter</b>		
TM15	Can be changed: C2(1), T	Calculated: -	Access level: 1
	Data type: Integer16	Dynamic index: -	Func. diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min 0	Max 30	Factory setting 0

<b>p0010</b>	<b>TM150 commissioning parameter filter</b>		
TM150	Can be changed: C2(1), T	Calculated: -	Access level: 1
	Data type: Integer16	Dynamic index: -	Func. diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min 0	Max 30	Factory setting 0

<b>p0010</b>	<b>TM15DI/DO commissioning the parameterizing filter</b>		
TM15DI_DO	Can be changed: C2(1), T Data type: Integer16 P-Group: - Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 30	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0
<b>p0010</b>	<b>TM17 commissioning parameter filter</b>		
TM17	Can be changed: C2(1), T Data type: Integer16 P-Group: - Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 30	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0
<b>p0010</b>	<b>TM31 commissioning parameter filter</b>		
TM31	Can be changed: C2(1), T Data type: Integer16 P-Group: - Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 30	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0
<b>p0010</b>	<b>TM41 commissioning parameter filter</b>		
TM41	Can be changed: C2(1), T Data type: Integer16 P-Group: - Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 30	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0
<b>p0010</b>	<b>TM54F commissioning parameter filter</b>		
TM54F_MA	Can be changed: C2(1), T Data type: Integer16 P-Group: - Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 95	Access level: 1 Func. diagram: 2847 Unit selection: - Expert list: 1  Factory setting 0
<b>p0011</b>	<b>BOP password entry (p0013)</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: U, T Data type: Unsigned16 P-Group: Functions Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 65535	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0

<b>p0012</b>	<b>BOP password acknowledgement (p0013)</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0

<b>p0013[0...49]</b>	<b>BOP user-defined list</b>		
A_INF, B_INF, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, HUB, S_INF, SERVO, SERVO_AC, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0

<b>p0015</b>	<b>Macro drive object</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM120, TM150, TM15DI_DO, TM31, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 999999	<b>Factory setting</b> 0

<b>p0015</b>	<b>Macro drive unit</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1 <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 999999	<b>Factory setting</b> 0

<b>p0016</b>	<b>Activate BOP user-defined list</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1, U, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>r0018</b>	<b>Control Unit firmware version</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 4294967295	<b>Factory setting</b> -
<b>r0019.0...14</b>	<b>CO/BO: Control word BOP</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9912 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r0020</b>	<b>Speed setpoint smoothed</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 5020, 6799 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]
<b>r0020</b>	<b>Velocity setpoint smoothed</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 5020, 6799 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]
<b>r0021</b>	<b>CO: Actual speed smoothed</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 1580, 1680, 4710, 6799 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1

	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]
<b>r0021</b>	<b>CO: Actual velocity smoothed</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1580, 1680, 4710, 6799
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]
<b>r0021</b>	<b>CO: Actual speed smoothed</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 4710, 6799
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]
<b>r0022</b>	<b>Speed actual value rpm smoothed</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1580, 1680, 4710, 6799
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> p2000	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]
<b>r0022</b>	<b>Actual velocity smoothed</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1580, 1680, 4710, 6799
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> p2000	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]
<b>r0022</b>	<b>Speed actual value rpm smoothed</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6799
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> p2000	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]



<b>r0024</b>	<b>CO: Line supply frequency smoothed</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 8850, 8950 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [Hz]	<b>Max</b> - [Hz]	<b>Factory setting</b> - [Hz]
<b>r0024</b>	<b>Output frequency smoothed</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 1690, 5300, 5730, 6799 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [Hz]	<b>Max</b> - [Hz]	<b>Factory setting</b> - [Hz]
<b>r0025[0...3]</b>	<b>CO: Input voltage smoothed</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 2 <b>Func. diagram:</b> 8850, 8950 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]
<b>r0025</b>	<b>CO: Output voltage smoothed</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 2 <b>Func. diagram:</b> 1690, 5730, 6799 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]
<b>r0026</b>	<b>CO: DC link voltage smoothed</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 2 <b>Func. diagram:</b> 5730, 6799, 8750, 8850, 8950 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]
<b>r0026</b>	<b>CO: DC link voltage smoothed</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 2 <b>Func. diagram:</b> 5730, 8750, 8850, 8950 <b>Unit selection:</b> - <b>Expert list:</b> 1

	Min - [V]	Max - [V]	Factory setting - [V]
<b>r0026</b>	<b>CO: DC link voltage smoothed</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 6799, 8750, 8850, 8950
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> p2001	<b>Unit selection:</b> - <b>Expert list:</b> 1
	Min - [V]	Max - [V]	Factory setting - [V]
<b>r0027</b>	<b>CO: Absolute actual current smoothed</b>		
A_INF, A_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 5730, 6799, 8850, 8950
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> p2002	<b>Unit selection:</b> - <b>Expert list:</b> 1
	Min - [Arms]	Max - [Arms]	Factory setting - [Arms]
<b>r0027</b>	<b>CO: Absolute actual current smoothed</b>		
B_INF, B_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8750
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 6_4 <b>Scaling:</b> p2002	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	Min - [A]	Max - [A]	Factory setting - [A]
<b>r0028</b>	<b>Modulation depth smoothed</b>		
A_INF, A_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5730, 6799, 8950
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> p2002	<b>Unit selection:</b> - <b>Expert list:</b> 1
	Min - [%]	Max - [%]	Factory setting - [%]
<b>r0029</b>	<b>Reactive current actual value smoothed</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8850, 8950
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> p2002	<b>Unit selection:</b> - <b>Expert list:</b> 1
	Min - [Arms]	Max - [Arms]	Factory setting - [Arms]

<b>r0029</b>	<b>Current actual value field-generating smoothed</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2002  <b>Max</b> - [Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5730, 6799 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]
<b>r0030</b>	<b>Active current actual value smoothed</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2002  <b>Max</b> - [Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 8850, 8950 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]
<b>r0030</b>	<b>Current actual value torque-generating smoothed</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2002  <b>Max</b> - [Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5730, 6799 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]
<b>r0030</b>	<b>Current actual value force generating smoothed</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2002  <b>Max</b> - [Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5730, 6799 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]
<b>r0031</b>	<b>Actual torque smoothed</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Nm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 7_1 <b>Scaling:</b> p2003  <b>Max</b> - [Nm]	<b>Access level:</b> 2 <b>Func. diagram:</b> 5730, 6799 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Nm]
<b>r0031</b>	<b>Force actual value smoothed</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [N]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 8_1 <b>Scaling:</b> p2003  <b>Max</b> - [N]	<b>Access level:</b> 2 <b>Func. diagram:</b> 5730, 6799 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [N]

<b>r0032</b>	<b>CO: Active power actual value smoothed</b>		
A_INF, A_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 14_10 <b>Scaling:</b> r2004	<b>Access level:</b> 2 <b>Func. diagram:</b> 5730, 6799, 8750, 8850, 8950 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [kW]	<b>Max</b> - [kW]	<b>Factory setting</b> - [kW]

<b>r0032</b>	<b>CO: Active power actual value smoothed</b>		
B_INF, B_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 14_10 <b>Scaling:</b> r2004	<b>Access level:</b> 2 <b>Func. diagram:</b> 5730, 6799, 8750, 8850, 8950 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [kW]	<b>Max</b> - [kW]	<b>Factory setting</b> - [kW]

<b>r0033</b>	<b>Torque utilization smoothed</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 8012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>r0033</b>	<b>Force utilization smoothed</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 8012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>r0033</b>	<b>Torque utilization smoothed</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 8012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>r0034</b>	<b>CO: Motor utilization</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 8017 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [%]
<b>r0035</b>	<b>CO: Temperature input</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 2 <b>Func. diagram:</b> 8850, 8950 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [°C]
<b>r0035</b>	<b>CO: Temperature input</b>		
B_INF, B_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 2 <b>Func. diagram:</b> 8750 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [°C]
<b>r0035</b>	<b>CO: Motor temperature</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 2 <b>Func. diagram:</b> 7008, 8016, 8017 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [°C]
<b>r0036</b>	<b>CO: Power unit overload I2t</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 8014 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [%]

<b>r0037[0...19]</b>	<b>CO: Power unit temperatures</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> 8014 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

<b>r0037[0...1]</b>	<b>Control Unit temperature</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

<b>r0038</b>	<b>Power factor smoothed</b>		
A_INF, A_INF_840, S_INF, S_INF_840, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6799, 8850, 8950 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r0039[0...2]</b>	<b>Energy display</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [kWh]	<b>Max</b> - [kWh]	<b>Factory setting</b> - [kWh]

<b>p0040</b>	<b>Reset energy consumption display</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>r0041</b>	<b>Energy consumption saved</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [kWh]	<b>Max</b> - [kWh]	<b>Factory setting</b> - [kWh]
<b>p0045</b>	<b>Display values smoothing time constant</b>		
A_INF, A_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 10000.00 [ms]	<b>Factory setting</b> 150.00 [ms]
<b>p0045</b>	<b>Display values smoothing time constant</b>		
S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 4715, 5610, 5730, 6714, 8012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 10000.00 [ms]	<b>Factory setting</b> 1.00 [ms]
<b>r0046.0...29</b>	<b>CO/BO: Missing enable sig</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 8834, 8934 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r0046.0...29</b>	<b>CO/BO: Missing enable sig</b>		
B_INF, B_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 8734 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r0046.0...31</b>	<b>CO/BO: Missing enable sig</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 2634 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r0046.0...31</b>	<b>CO/BO: Missing enable sig</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 2634 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r0047</b>	<b>Identification status</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 104	<b>Factory setting</b> -

<b>r0047</b>	<b>Motor data identification and speed controller optimization</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 300	<b>Factory setting</b> -

<b>r0049[0...3]</b>	<b>Motor data set/encoder data set effective</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8565 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r0050.0...3</b>	<b>CO/BO: Command Data Set CDS effective</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8560 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -



<b>r0051.0...4</b>	<b>CO/BO: Drive Data Set DDS effective</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned8 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0056.1...15</b>	<b>CO/BO: Status word, closed-loop control</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: - Data type: Unsigned16 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 1530, 2526 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0056.0...15</b>	<b>CO/BO: Status word, closed-loop control</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned16 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 1530, 2526 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0056.0...13</b>	<b>CO/BO: Status word, closed-loop control</b>		
VECTOR (F3E), VECTOR_AC (F3E)	Can be changed: - Data type: Unsigned16 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 1530, 2526 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0060</b>	<b>CO: Speed setpoint before the setpoint filter</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: 3_1 Scaling: p2000	Access level: 3 Func. diagram: 2701, 2704, 5020, 6030, 6799 Unit selection: p0505 Expert list: 1
	Min - [rpm]	Max - [rpm]	Factory setting - [rpm]

<b>r0060</b>	<b>CO: Velocity setpoint before the setpoint filter</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2701, 2704, 5020, 6030, 6799
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]

<b>r0061</b>	<b>CO: Actual speed unsmoothed</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1580, 4710, 4715
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>r0061</b>	<b>CO: Actual velocity unsmoothed</b>		
ENC (Lin_enc), ENC_840 (Lin_enc)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1580, 4710, 4715
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]

<b>r0061[0...1]</b>	<b>CO: Actual speed unsmoothed</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1580, 4710, 4715
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>r0061[0...1]</b>	<b>CO: Actual velocity unsmoothed</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1580, 4710, 4715
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]

<b>r0061[0...2]</b>	<b>CO: Actual speed unsmoothed</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1580, 4710, 4715
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]
<b>r0062</b>	<b>CO: Speed setpoint after the filter</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1590, 1750, 5020, 5030, 5210, 6030
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]
<b>r0062</b>	<b>CO: Velocity setpoint after the filter</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1590, 1750, 5020, 5030, 5210, 6030
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]
<b>r0063</b>	<b>CO: Actual speed smoothed</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1580, 1590, 4710, 5300
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]
<b>r0063</b>	<b>CO: Actual velocity smoothed</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1580, 1590, 4710, 5300
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]

<b>r0063</b>	<b>CO: Speed actual value</b>		
TM41	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [rpm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000  <b>Max</b> - [rpm]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [rpm]
<b>r0063[0...2]</b>	<b>CO: Speed actual value</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [rpm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000  <b>Max</b> - [rpm]	<b>Access level:</b> 3 <b>Func. diagram:</b> 1680, 4715 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [rpm]
<b>r0064</b>	<b>CO: Speed controller system deviation</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [rpm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000  <b>Max</b> - [rpm]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 6040 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [rpm]
<b>r0064</b>	<b>CO: Velocity controller system deviation</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [m/min]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000  <b>Max</b> - [m/min]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 6040 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [m/min]
<b>r0065</b>	<b>Slip frequency</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Hz]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 2_1 <b>Scaling:</b> p2000  <b>Max</b> - [Hz]	<b>Access level:</b> 3 <b>Func. diagram:</b> 1710, 6310, 6727, 6730, 6732 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Hz]

<b>r0066[0...1]</b>	<b>CO: Line frequency</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8850, 8864, 8950, 8964
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 2_1 <b>Scaling:</b> p2000	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Hz]	<b>Max</b> - [Hz]	<b>Factory setting</b> - [Hz]
<b>r0066</b>	<b>CO: Output frequency</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1690, 5300, 5730, 6310, 6730, 6731, 6799
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 2_1 <b>Scaling:</b> p2000	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Hz]	<b>Max</b> - [Hz]	<b>Factory setting</b> - [Hz]
<b>r0067[0...1]</b>	<b>Absolute current value permissible</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> -
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 6_2 <b>Scaling:</b> p2002	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]
<b>r0067</b>	<b>CO: Output current, maximum</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5722, 6300, 6640, 6724
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 6_2 <b>Scaling:</b> p2002	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]
<b>r0068</b>	<b>CO: Absolute current actual value</b>		
A_INF, A_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5730, 7017, 8014, 8017, 8850, 8950
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 6_2 <b>Scaling:</b> p2002	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

<b>r0068</b>	<b>CO: DC current in the DC link</b>		
B_INF, B_INF_840	Can be changed: - Data type: FloatingPoint32 P-Group: Displays, signals Not for motor type: -  Min - [A]	Calculated: - Dynamic index: - Units group: 6_4 Scaling: p2002  Max - [A]	Access level: 3 Func. diagram: 8014, 8750 Unit selection: p0505 Expert list: 1  Factory setting - [A]
<b>r0068[0...1]</b>	<b>CO: Absolute current actual value</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32  P-Group: Displays, signals Not for motor type: -  Min - [Arms]	Calculated: - Dynamic index: - Units group: 6_2 Scaling: p2002  Max - [Arms]	Access level: 3 Func. diagram: 1690, 6714, 6799, 7017, 8014, 8017, 8018 Unit selection: p0505 Expert list: 1  Factory setting - [Arms]
<b>r0069[0...6]</b>	<b>CO: Phase current actual value</b>		
A_INF, A_INF_840, S_INF, S_INF_840, VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32  P-Group: Displays, signals Not for motor type: -  Min - [A]	Calculated: - Dynamic index: - Units group: 6_5 Scaling: p2002  Max - [A]	Access level: 3 Func. diagram: 1630, 5730, 6714, 6730, 6731, 8850, 8950 Unit selection: p0505 Expert list: 1  Factory setting - [A]
<b>r0069[0...6]</b>	<b>Phase current actual value</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: - Data type: FloatingPoint32  P-Group: Displays, signals Not for motor type: -  Min - [A]	Calculated: - Dynamic index: - Units group: 6_5 Scaling: p2002  Max - [A]	Access level: 3 Func. diagram: 1630, 5730, 6714, 6730, 6731, 8850, 8950 Unit selection: p0505 Expert list: 1  Factory setting - [A]
<b>r0070</b>	<b>CO: Actual DC link voltage</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	Can be changed: - Data type: FloatingPoint32  P-Group: Displays, signals Not for motor type: -  Min - [V]	Calculated: - Dynamic index: - Units group: 5_2 Scaling: p2001  Max - [V]	Access level: 3 Func. diagram: 1774, 8750, 8850, 8864, 8940, 8950, 8964 Unit selection: p0505 Expert list: 1  Factory setting - [V]

<b>r0070</b> SERVO, SERVO_840, SERVO_AC	<b>CO: Actual DC link voltage</b> <b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [V]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_2 <b>Scaling:</b> p2001  <b>Max</b> - [V]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5730 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [V]
<b>r0070</b> VECTOR, VECTOR_AC	<b>CO: Actual DC link voltage</b> <b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [V]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 5_2 <b>Scaling:</b> p2001  <b>Max</b> - [V]	<b>Access level:</b> 3 <b>Func. diagram:</b> 6723, 6724, 6730, 6731, 6799 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [V]
<b>r0071</b> VECTOR, VECTOR_AC	<b>Maximum output voltage</b> <b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Vrms]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 5_1 <b>Scaling:</b> p2001  <b>Max</b> - [Vrms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 1710, 6300, 6640, 6722, 6723, 6724, 6725, 6727 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Vrms]
<b>r0072[0...3]</b> A_INF, A_INF_840, S_INF, S_INF_840	<b>CO: Input voltage</b> <b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Vrms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_1 <b>Scaling:</b> p2001  <b>Max</b> - [Vrms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 8850, 8950 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Vrms]
<b>r0072</b> SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>CO: Output voltage</b> <b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Vrms]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 5_1 <b>Scaling:</b> p2001  <b>Max</b> - [Vrms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 1630, 5730, 6730, 6731, 6799 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Vrms]

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<b>r0073</b>	<b>Maximum modulation depth</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6723, 6724, 6725
	<b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

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<b>r0074</b>	<b>CO: Modulat_depth</b>		
A_INF, A_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5730, 6730, 6731, 6799, 8940, 8950
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

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<b>r0075</b>	<b>CO: Reactive current setpoint</b>		
A_INF, A_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8946
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 6_2 <b>Scaling:</b> p2002	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

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<b>r0075</b>	<b>CO: Current setpoint field-generating</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1630, 5714, 5722, 6714
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 6_2 <b>Scaling:</b> p2002	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

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<b>r0076</b>	<b>CO: Reactive current actual value</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1774, 1775, 8850, 8946, 8950
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Units group:</b> 6_2 <b>Scaling:</b> p2002	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]



<b>r0076</b>	<b>CO: Current actual value field-generating</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 6_2 <b>Scaling:</b> p2002  <b>Max</b> - [Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 1630, 1710, 5714, 5730, 6714, 6799 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]
<b>r0077</b>	<b>CO: Active current setpoint</b>		
A_INF, A_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 6_2 <b>Scaling:</b> p2002  <b>Max</b> - [Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 1774, 8940, 8946 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]
<b>r0077</b>	<b>CO: Current setpoint torque-generating</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 6_2 <b>Scaling:</b> p2002  <b>Max</b> - [Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 1630, 1774, 5714, 6710, 6714, 6719 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]
<b>r0077</b>	<b>CO: Current setpoint force-generating</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 6_2 <b>Scaling:</b> p2002  <b>Max</b> - [Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 1630, 1774, 5714, 6710, 6714, 6719 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]
<b>r0078</b>	<b>CO: Active current actual value</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 6_2 <b>Scaling:</b> p2002  <b>Max</b> - [Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 1774, 1775, 8850, 8946, 8950 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]

<b>r0078[0...1]</b>	<b>CO: Current actual value torque-generating</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 6_2 <b>Scaling:</b> p2002  <b>Max</b> - [Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 1630, 5714, 5730 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]
<b>r0078[0...1]</b>	<b>CO: Current actual value force-generating</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 6_2 <b>Scaling:</b> p2002  <b>Max</b> - [Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 1630, 5714, 5730 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]
<b>r0078</b>	<b>CO: Current actual value torque-generating</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 6_2 <b>Scaling:</b> p2002  <b>Max</b> - [Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 1710, 6310, 6714, 6799 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]
<b>r0079[0...1]</b>	<b>CO: Torque setpoint total</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Nm]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 7_1 <b>Scaling:</b> p2003  <b>Max</b> - [Nm]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5610, 8012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Nm]
<b>r0079[0...1]</b>	<b>CO: Total force setpoint</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [N]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 8_1 <b>Scaling:</b> p2003  <b>Max</b> - [N]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5610, 8012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [N]

<b>r0079</b>	<b>CO: Torque setpoint</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Nm]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 7_1 <b>Scaling:</b> p2003  <b>Max</b> - [Nm]	<b>Access level:</b> 3 <b>Func. diagram:</b> 1700, 1710, 6030, 6060, 6710, 8012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Nm]
<b>r0080</b>	<b>CO: Torque actual value</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Nm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 7_1 <b>Scaling:</b> p2003  <b>Max</b> - [Nm]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5730 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Nm]
<b>r0080</b>	<b>CO: Force actual value</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [N]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 8_1 <b>Scaling:</b> p2003  <b>Max</b> - [N]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5730 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [N]
<b>r0080[0...1]</b>	<b>CO: Torque actual value</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Nm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 7_1 <b>Scaling:</b> p2003  <b>Max</b> - [Nm]	<b>Access level:</b> 3 <b>Func. diagram:</b> 6714, 6799 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Nm]
<b>r0081</b>	<b>CO: Torque utilization</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [%]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT  <b>Max</b> - [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> 8012 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [%]
<b>r0081</b>	<b>CO: Force utilization</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [%]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT  <b>Max</b> - [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> 8012 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [%]

<b>r0081</b>	<b>CO: Torque utilization</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8012
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>r0082</b>	<b>CO: Active power actual value</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8750, 8850, 8950
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> 14_7	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> r2004	<b>Expert list:</b> 1
	<b>Min</b> - [kW]	<b>Max</b> - [kW]	<b>Factory setting</b> - [kW]

<b>r0082</b>	<b>CO: Active power actual value</b>		
B_INF, B_INF_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8750, 8850, 8950
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> 14_7	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> r2004	<b>Expert list:</b> 1
	<b>Min</b> - [kW]	<b>Max</b> - [kW]	<b>Factory setting</b> - [kW]

<b>r0082[0...2]</b>	<b>CO: Active power actual value</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 5730
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> 14_5	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> r2004	<b>Expert list:</b> 1
	<b>Min</b> - [kW]	<b>Max</b> - [kW]	<b>Factory setting</b> - [kW]

<b>r0082[0...2]</b>	<b>CO: Active power actual value</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 5730
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> 14_8	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> r2004	<b>Expert list:</b> 1
	<b>Min</b> - [kW]	<b>Max</b> - [kW]	<b>Factory setting</b> - [kW]

<b>r0082[0...2]</b>	<b>CO: Active power actual value</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Displays, signals Not for motor type: -  Min - [kW]	Calculated: - Dynamic index: - Units group: 14_5 Scaling: r2004  Max - [kW]	Access level: 3 Func. diagram: 6714, 6799 Unit selection: p0505 Expert list: 1  Factory setting - [kW]
<b>r0083</b>	<b>CO: Flux setpoint</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Displays, signals Not for motor type: -  Min - [%]	Calculated: - Dynamic index: - Units group: - Scaling: PERCENT  Max - [%]	Access level: 3 Func. diagram: 5722 Unit selection: - Expert list: 1  Factory setting - [%]
<b>r0083</b>	<b>CO: Flux setpoint</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Displays, signals Not for motor type: -  Min - [%]	Calculated: - Dynamic index: - Units group: - Scaling: PERCENT  Max - [%]	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [%]
<b>r0084</b>	<b>CO: Flux actual value</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Displays, signals Not for motor type: -  Min - [%]	Calculated: - Dynamic index: - Units group: - Scaling: PERCENT  Max - [%]	Access level: 3 Func. diagram: 5722 Unit selection: - Expert list: 1  Factory setting - [%]
<b>r0084[0...1]</b>	<b>CO: Flux actual value</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32  P-Group: Displays, signals Not for motor type: -  Min - [%]	Calculated: - Dynamic index: -  Units group: - Scaling: PERCENT  Max - [%]	Access level: 3 Func. diagram: 6726, 6730, 6732 Unit selection: - Expert list: 1  Factory setting - [%]

<b>r0087</b>	<b>CO: Actual power factor</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6714, 6730, 6732, 6799 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> -

<b>r0088</b>	<b>CO: DC link voltage setpoint</b>		
A_INF, A_INF_840, SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [V]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_2 <b>Scaling:</b> p2001  <b>Max</b> - [V]	<b>Access level:</b> 3 <b>Func. diagram:</b> 8940, 8964 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting</b> - [V]

<b>r0088</b>	<b>CO: DC link voltage setpoint</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [V]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_2 <b>Scaling:</b> p2001  <b>Max</b> - [V]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting</b> - [V]

<b>r0089[0...2]</b>	<b>Actual phase voltage</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [V]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_3 <b>Scaling:</b> p2001  <b>Max</b> - [V]	<b>Access level:</b> 3 <b>Func. diagram:</b> 6719 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting</b> - [V]

<b>p0092</b>	<b>Clock synchronous operation pre-assignment/check</b>		
CU_I_840, CU_NX_840	<b>Can be changed:</b> C1(1) <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 1	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 1

<b>p0092</b>	<b>Clock synchronous operation pre-assignment/check</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(1) <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>r0093</b>	<b>CO: Pole position angle electrically scaled</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2005	<b>Access level:</b> 3 <b>Func. diagram:</b> 4710 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [°]	<b>Max</b> - [°]	<b>Factory setting</b> - [°]
<b>r0094</b>	<b>CO: Transformation angle</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2005	<b>Access level:</b> 3 <b>Func. diagram:</b> 8850, 8950 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [°]	<b>Max</b> - [°]	<b>Factory setting</b> - [°]
<b>r0094</b>	<b>CO: Transformation angle</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2005	<b>Access level:</b> 3 <b>Func. diagram:</b> 1580, 1680, 1690, 4710, 6714, 6730, 6731, 6732 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [°]	<b>Max</b> - [°]	<b>Factory setting</b> - [°]
<b>p0097</b>	<b>Select drive object type</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(1) <b>Data type:</b> Integer16 <b>P-Group:</b> Topology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 24	<b>Factory setting</b> 0

<b>r0098[0...5]</b>	<b>Actual device topology</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Topology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p0099[0...5]</b>	<b>Device target topology</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(1) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Topology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex
<b>p0100</b>	<b>IEC/NEMA mot stds</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1) <b>Data type:</b> Integer16 <b>P-Group:</b> Converter <b>Not for motor type:</b> FEM	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>p0100</b>	<b>IEC/NEMA mot stds</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1) <b>Data type:</b> Integer16 <b>P-Group:</b> Converter <b>Not for motor type:</b> FEM	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>p0101[0...23]</b>	<b>Drive object numbers</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(1) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Topology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 62	<b>Factory setting</b> 0



<b>r0102[0...1]</b>	<b>Number of drive objects</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Topology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r0103</b>	<b>Application-specific view</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> -
<b>p0103[0...23]</b>	<b>Application-specific view</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(2) <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 999	<b>Factory setting</b> 0
<b>p0105</b>	<b>Activate/de-activate drive object</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_LINK, ENC, ENC_840, HUB, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM17, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 1

<b>p0105</b>	<b>Activate/de-activate drive object</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 1

<b>p0105</b>	<b>Activate/de-activate drive object</b>		
TM15, TM31, TM41	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 1

<b>p0105</b>	<b>Activate/de-activate drive object</b>		
TM54F_MA, TM54F_SL	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 1

<b>r0106</b>	<b>Drive object active/inactive</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, HUB, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> -

<b>r0107</b>	<b>Drive object type</b>			
A_INF, A_INF_840, B_INF, B_INF_840, CU_LINK, ENC, ENC_840, HUB, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> 0	<b>Max</b> 600	<b>Factory setting</b> -	

<b>p0107[0...23]</b>	<b>Drive object type</b>			
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(2) <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> 0	<b>Max</b> 600	<b>Factory setting</b> 0	

<b>r0108</b>	<b>Drive objects, function module</b>			
A_INF	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -	

<b>r0108</b>	<b>Drive objects, function module</b>			
A_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -	

<b>r0108</b>	<b>Drive objects, function module</b>			
B_INF_840, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -	

<b>r0108</b>	<b>Drive objects, function module</b>		
B_INF, S_INF	Can be changed: -	Calculated: -	Access level: 2
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>p0108[0...23]</b>	<b>Drive objects, function module</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: C1(2)	Calculated: -	Access level: 2
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: -	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	0000 0000 0000 0000 0000 0000 0000 0000 bin

<b>r0108</b>	<b>Drive objects, function module</b>		
ENC, ENC_840	Can be changed: -	Calculated: -	Access level: 2
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0108</b>	<b>Drive objects, function module</b>		
SERVO	Can be changed: -	Calculated: -	Access level: 2
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0108</b>	<b>Drive objects, function module</b>		
SERVO_840	Can be changed: -	Calculated: -	Access level: 2
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

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<b>r0108</b>	<b>Drive objects, function module</b>		
SERVO_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r0108</b>	<b>Drive objects, function module</b>		
TB30, TM120, TM150, TM15DI_DO, TM31, TM41	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r0108</b>	<b>Drive objects, function module</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r0110[0...2]</b>	<b>Basic sampling times</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0.00 [µs]	10000.00 [µs]	- [µs]

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<b>r0111</b>	<b>Basic sampling time selection</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, HUB, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	2	-

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<b>r0111</b>	<b>Basic sampling time selection</b>		
TB30, TM15, TM15DI_DO, TM17, TM31, TM41	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 2	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>p0112</b>	<b>Sampling times pre-setting p0115</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(3) <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 5	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 3

<b>p0113</b>	<b>Minimum pulse frequency, selection</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C1(3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> 2.000 [kHz]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 4.000 [kHz]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 4.000 [kHz]

<b>p0113</b>	<b>Minimum pulse frequency, selection</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> 1.000 [kHz]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 4.000 [kHz]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 2.000 [kHz]

<b>r0114[0...9]</b>	<b>Minimum pulse frequency, recommended</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> - [kHz]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [kHz]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [kHz]

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<b>p0115[0...6]</b>	<b>Sampling times for internal control loops</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C1(3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 16000.00 [µs]	<b>Factory setting</b> [0] 125.00 [µs] [1] 125.00 [µs] [2] 125.00 [µs] [3] 4000.00 [µs] [4] 1000.00 [µs] [5] 4000.00 [µs] [6] 4000.00 [µs]

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<b>p0115[0]</b>	<b>Sampling time for supplementary functions</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 16000.00 [µs]	<b>Factory setting</b> 4000.00 [µs]

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<b>p0115[0]</b>	<b>Sampling time for speed detection</b>		
ENC, ENC_840	<b>Can be changed:</b> C1(3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 125.00 [µs]	<b>Max</b> 500.00 [µs]	<b>Factory setting</b> 125.00 [µs]

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<b>p0115[0...6]</b>	<b>Sampling times for internal control loops</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C1(3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 16000.00 [µs]	<b>Factory setting</b> [0] 125.00 [µs] [1] 125.00 [µs] [2] 125.00 [µs] [3] 4000.00 [µs] [4] 1000.00 [µs] [5] 4000.00 [µs] [6] 4000.00 [µs]

<b>p0115[0]</b>	<b>Sampling time for supplementary functions</b>		
TB30, TM150, TM15DI_DO, TM31	<b>Can be changed:</b> C1(3)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 16000.00 [µs]	<b>Factory setting</b> 4000.00 [µs]

<b>p0115[0]</b>	<b>Sampling time for supplementary functions</b>		
TM120	<b>Can be changed:</b> C1(3)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 16000.00 [µs]	<b>Factory setting</b> 4000.00 [µs]

<b>p0115[0]</b>	<b>Sampling time for supplementary functions</b>		
TM41	<b>Can be changed:</b> C1(3)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 16000.00 [µs]	<b>Factory setting</b> 4000.00 [µs]

<b>p0115[0...6]</b>	<b>Sampling times for internal control loops</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(3)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 16000.00 [µs]	<b>Factory setting</b> [0] 250.00 [µs] [1] 1000.00 [µs] [2] 1000.00 [µs] [3] 1000.00 [µs] [4] 2000.00 [µs] [5] 4000.00 [µs] [6] 4000.00 [µs]



<b>r0116[0...1]</b>	<b>Drive object clock cycle recommended</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM15, TM15DI_DO, TM17, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [µs]	<b>Max</b> - [µs]	<b>Factory setting</b> - [µs]
<b>p0117</b>	<b>Current controller computing dead time mode</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 6	<b>Factory setting</b> 6
<b>p0118</b>	<b>Current controller computing dead time</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 2000.00 [µs]	<b>Factory setting</b> 0.00 [µs]
<b>p0118</b>	<b>Current controller computing dead time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 2000.00 [µs]	<b>Factory setting</b> 0.00 [µs]

<b>p0120</b>	<b>Number of Power unit Data Sets (PDS)</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(3) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 8	<b>Factory setting</b> 1

<b>p0121[0...n]</b>	<b>Power unit component number</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(4) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 199	<b>Factory setting</b> 0

<b>p0124[0...n]</b>	<b>Power unit detection via LED</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p0124[0...23]</b>	<b>Main component detection using LED</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p0125[0...n]</b>	<b>Activate/de-activate power unit components</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(4), T <b>Data type:</b> Integer16 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 1
<b>r0126[0...n]</b>	<b>Power unit components active/inactive</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> -
<b>r0127[0...n]</b>	<b>Power unit version EPROM data</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r0128[0...n]</b>	<b>Power unit, firmware version</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p0130</b>	<b>Number of Motor Data Sets (MDS)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(3) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8575 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 1

<b>p0131[0...n]</b>	<b>Motor component number</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(4) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0

<b>p0139[0...2]</b>	<b>Copy Motor Data Set MDS</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(15) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8575 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0

<b>p0140</b>	<b>Number of VSM data sets</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> C1(3) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 1

<b>p0140</b>	<b>Number of Encoder Data Sets (EDS)</b>		
ENC, ENC_840	<b>Can be changed:</b> C1(3) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 1

<b>p0140</b>	<b>Number of Encoder Data Sets (EDS)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(3) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 1

<b>p0141[0...n]</b>	<b>VSM component number</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> C1(4) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 199	
<b>p0141[0...n]</b>	<b>Encoder interface (Sensor Module) component number</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(4) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4704, 8570 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 199	
<b>p0142[0...n]</b>	<b>Encoder component number</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(4) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4704 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 199	
<b>p0144[0...n]</b>	<b>Voltage Sensing Module detection via LED</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 1	
<b>p0144[0...n]</b>	<b>Sensor Module detection via LED</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 1	

<b>p0145[0...n]</b>	<b>Voltage Sensing Module, activate/de-activate</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> C1(4), T <b>Data type:</b> Integer16 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 1

<b>p0145[0...n]</b>	<b>Activate/de-activate encoder interface</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(4), U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 1

<b>r0146[0...n]</b>	<b>Voltage Sensing Module, active/inactive</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> -

<b>r0146[0...n]</b>	<b>Encoder interface active/inactive</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> -

<b>r0147[0...n]</b>	<b>Voltage Sensing Module, EPROM data version</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r0147[0...n]</b>	<b>Sensor Module EEPROM data version</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r0148[0...n]</b>	<b>Voltage Sensing Module firmware version</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r0148[0...n]</b>	<b>Sensor Module firmware version</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>p0150</b>	<b>VSM2 data sets selection</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> C1(3) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 2	<b>Factory setting</b> 1

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<b>p0150</b>	<b>Number of VSM data sets</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(3) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 2	<b>Factory setting</b> 1

<b>p0151[0...n]</b>	<b>Voltage Sensing Module 2 component number</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> C1(4) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 199	<b>Factory setting</b> 0

<b>p0151[0...1]</b>	<b>DRIVE-CLiQ Hub Module component number</b>		
HUB	<b>Can be changed:</b> C1(4) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 199	<b>Factory setting</b> 0

<b>p0151</b>	<b>Terminal Module component number</b>		
TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, TM54F_MA, TM54F_SL	<b>Can be changed:</b> C1(4) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 199	<b>Factory setting</b> 0

<b>p0151[0...n]</b>	<b>Voltage Sensing Module component number</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(4) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 199	<b>Factory setting</b> 0

<b>p0154[0...n]</b>	<b>Voltage Sensing Module 2 detection via LED</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p0154</b>	<b>DRIVE-CLiQ Hub Module detection via LED</b>		
HUB	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0



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<b>p0154</b>	<b>Terminal Module detection via LED</b>		
TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, TM54F_MA, TM54F_SL	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

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<b>p0155[0...n]</b>	<b>Voltage Sensing Module 2, activate/de-activate</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> C1(4), T <b>Data type:</b> Integer16 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 1

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<b>p0155[0...n]</b>	<b>Voltage Sensing Module, activate/de-activate</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(4), T <b>Data type:</b> Integer16 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 1

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<b>r0156[0...n]</b>	<b>Voltage Sensing Module 2, active/inactive</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> -

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<b>r0156[0...n]</b>	<b>Voltage Sensing Module, active/inactive</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> -

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<b>r0157[0...n]</b>	<b>Voltage Sensing Module 2, EPROM data version</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r0157</b>	<b>DRIVE-CLiQ Hub Module EPROM data version</b>		
HUB	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0157</b>	<b>Terminal Module EPROM data version</b>		
TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, TM54F_MA, TM54F_SL	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0157[0...n]</b>	<b>Voltage Sensing Module, EPROM data version</b>		
VECTOR, VECTOR_AC	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: p0150	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0158[0...n]</b>	<b>Voltage Sensing Module 2 firmware version</b>		
A_INF, A_INF_840, S_INF, S_INF_840	Can be changed: -	Calculated: -	Access level: 4
	Data type: Unsigned32	Dynamic index: p0150	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0158</b>	<b>DRIVE-CLiQ Hub Module firmware version</b>		
HUB	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0158</b>	<b>Terminal Module firmware version</b>		
TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, TM54F_MA, TM54F_SL	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0158[0...n]</b>	<b>Voltage Sensing Module firmware version</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -  Min -	Calculated: - Dynamic index: p0150 Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>p0161</b>	<b>HF Damping Module component number</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: C1(4) Data type: Unsigned8 P-Group: Data sets Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 199	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0
<b>p0161</b>	<b>Option board, component number</b>		
TB30	Can be changed: C1(4) Data type: Unsigned8 P-Group: Data sets Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 199	Access level: 4 Func. diagram: 9100 Unit selection: - Expert list: 1  Factory setting 0
<b>p0162</b>	<b>CU-LINK slave component number</b>		
CU_LINK	Can be changed: C1(4) Data type: Unsigned8 P-Group: Terminals Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 199	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0
<b>p0162</b>	<b>HF Choke Module component number</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: C1(4) Data type: Unsigned8 P-Group: Terminals Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 199	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0
<b>p0165</b>	<b>Activate/de-activate filter module</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: C1(4), T Data type: Integer16 P-Group: Data sets Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 2	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 1

<b>r0166</b>	<b>Filter module active/inactive</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 1	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>p0170</b>	<b>Number of Command Data Sets (CDS)</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C1(3) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> 1	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 2	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 1

<b>p0170</b>	<b>Number of Command Data Sets (CDS)</b>		
TM41	<b>Can be changed:</b> C1(3) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> 1	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 1	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 1

<b>p0170</b>	<b>Number of Command Data Sets (CDS)</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(3) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> 2	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 4	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 2

<b>p0180</b>	<b>Number of Drive Data Sets (DDS)</b>		
SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(3) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -  <b>Min</b> 1	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 32	<b>Access level:</b> 2 <b>Func. diagram:</b> 8565 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 1

<b>p0186[0...n]</b>	<b>Motor Data Sets (MDS) number</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(4) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 15	<b>Access level:</b> 3 <b>Func. diagram:</b> 8575 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

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<b>p0187[0...n]</b>	<b>Encoder 1 encoder data set number</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C1(4) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1580, 8570 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 99	<b>Factory setting</b> 99

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<b>p0187[0...n]</b>	<b>Encoder 1 encoder data set number</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(4) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1580, 8570 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 99	<b>Factory setting</b> 99

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<b>p0188[0...n]</b>	<b>Encoder 2 encoder data set number</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(4) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1580, 8570 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 99	<b>Factory setting</b> 99

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<b>p0189[0...n]</b>	<b>Encoder 3 encoder data set number</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(4) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1580, 8570 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 99	<b>Factory setting</b> 99

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<b>r0192</b>	<b>Power unit firmware properties</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r0194[0...n]</b>	<b>VSM properties</b>		
A_INF, A_INF_840, S_INF, S_INF_840	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: p0140 Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0194[0...n]</b>	<b>VSM properties</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: p0150 Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0196[0...255]</b>	<b>DRIVE-CLiQ component status</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0197</b>	<b>Bootloader vers</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned32 P-Group: Closed-loop control Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0198[0...1]</b>	<b>BIOS/EEPROM data version</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned32 P-Group: Closed-loop control Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>p0199[0...24]</b>	<b>Drive object name</b>		
All objects	<b>Can be changed:</b> C1	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	65535	0
<b>r0200[0...n]</b>	<b>Power unit code number actual</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> PDS, p0120	<b>Func. diagram:</b> -
	<b>P-Group:</b> Converter	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-
<b>p0201[0...n]</b>	<b>Power unit code number</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> C2(2)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> PDS, p0120	<b>Func. diagram:</b> -
	<b>P-Group:</b> Converter	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	65535	0
<b>p0201[0...n]</b>	<b>Power unit code number</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(2)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> PDS, p0120	<b>Func. diagram:</b> -
	<b>P-Group:</b> Converter	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	65535	0
<b>r0203[0...n]</b>	<b>Actual power unit type</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> PDS, p0120	<b>Func. diagram:</b> -
	<b>P-Group:</b> Converter	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	2	400	-

<b>r0203[0...15]</b>	<b>Firmware package name</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0204[0...n]</b>	<b>Power unit hardware properties</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	Can be changed: - Data type: Unsigned32 P-Group: Converter Not for motor type: -	Calculated: - Dynamic index: PDS, p0120 Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0204[0...n]</b>	<b>Power unit hardware properties</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Converter Not for motor type: -	Calculated: - Dynamic index: PDS, p0120 Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>p0205</b>	<b>Power unit application</b>		
VECTOR, VECTOR_AC	Can be changed: C2(1, 2) Data type: Integer16 P-Group: Converter Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 7	Factory setting 6

<b>r0206[0...4]</b>	<b>Rated power unit power</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Converter Not for motor type: -	Calculated: - Dynamic index: - Units group: 14_6 Scaling: -	Access level: 2 Func. diagram: - Unit selection: p0100 Expert list: 1
	Min - [kW]	Max - [kW]	Factory setting - [kW]



<b>r0207[0...4]</b>	<b>Rated power unit current</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8014 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]
<b>r0208</b>	<b>Rated power unit line supply voltage</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]
<b>r0209[0...4]</b>	<b>Power unit, maximum current</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8750, 8850, 8950 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]
<b>p0210</b>	<b>Drive unit line supply voltage</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> C2(1) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 8860, 8960 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 100 [Vrms]	<b>Max</b> 1000 [Vrms]	<b>Factory setting</b> 400 [Vrms]
<b>p0210</b>	<b>Drive unit line supply voltage</b>		
B_INF, B_INF_840	<b>Can be changed:</b> C2(1) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 8760 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 70 [Vrms]	<b>Max</b> 1000 [Vrms]	<b>Factory setting</b> 400 [Vrms]

<b>p0210</b>	<b>Drive unit line supply voltage</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(2), T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1 [V]	<b>Max</b> 63000 [V]	<b>Factory setting</b> 600 [V]

<b>p0210</b>	<b>Drive unit line supply voltage</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(2), T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1 [V]	<b>Max</b> 63000 [V]	<b>Factory setting</b> 600 [V]

<b>p0211</b>	<b>Rated line freq</b>		
A_INF_840, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8864, 8964 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 10 [Hz]	<b>Max</b> 100 [Hz]	<b>Factory setting</b> 55 [Hz]

<b>p0211</b>	<b>Rated line freq</b>		
A_INF, S_INF	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8864, 8964 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 10 [Hz]	<b>Max</b> 100 [Hz]	<b>Factory setting</b> 50 [Hz]

<b>p0212</b>	<b>Power unit configuration</b>		
B_INF, B_INF_840	<b>Can be changed:</b> C2(2) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin

<b>p0212</b>	<b>Power unit configuration</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(2) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin

<b>p0212</b>	<b>Power unit configuration</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(2) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin
<b>p0220[0...1]</b>	<b>Infeed line filter type</b>		
A_INF, A_INF_840	<b>Can be changed:</b> C2(1) <b>Data type:</b> Integer16 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8950 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 45	<b>Factory setting</b> 0
<b>p0221[0...1]</b>	<b>Infeed filter capacitance</b>		
A_INF, A_INF_840	<b>Can be changed:</b> C2(1) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8950 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [µF]	<b>Max</b> 100000.00 [µF]	<b>Factory setting</b> 0.00 [µF]
<b>p0222[0...1]</b>	<b>Infeed filter resistance</b>		
A_INF, A_INF_840	<b>Can be changed:</b> C2(1) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [ohm]	<b>Max</b> 100.00000 [ohm]	<b>Factory setting</b> 0.00000 [ohm]
<b>p0223</b>	<b>Infeed inductance between filter and power unit</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> C2(1) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8850, 8950 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.001 [mH]	<b>Max</b> 1000.000 [mH]	<b>Factory setting</b> 2.100 [mH]
<b>p0224</b>	<b>Infeed resistance between filter and power unit</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> C2(1) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8850, 8950 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [ohm]	<b>Max</b> 100.00000 [ohm]	<b>Factory setting</b> 0.00100 [ohm]

<b>p0225</b>	<b>Infeed inductance between line supply and filter</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> C2(1) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8850, 8950 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.001 [mH]	<b>Max</b> 1000.000 [mH]	<b>Factory setting</b> 0.001 [mH]

<b>p0226</b>	<b>Infeed resistance between line supply and filter</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> C2(1) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8850, 8950 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ohm]	<b>Max</b> 100.00 [ohm]	<b>Factory setting</b> 0.00 [ohm]

<b>p0227</b>	<b>Infeed, DC link capacitance, power unit</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> C2(1) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8850, 8950 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.20 [mF]	<b>Max</b> 1000.00 [mF]	<b>Factory setting</b> 1.00 [mF]

<b>p0230</b>	<b>Drive filter type, motor side</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 2) <b>Data type:</b> Integer16 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 4	<b>Factory setting</b> 0

<b>p0233</b>	<b>Power unit motor reactor</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(2), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [mH]	<b>Max</b> 1000.000 [mH]	<b>Factory setting</b> 0.000 [mH]

<b>p0233</b>	<b>Power unit motor reactor</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(2), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [mH]	<b>Max</b> 1000.000 [mH]	<b>Factory setting</b> 0.000 [mH]

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<b>p0234</b>	<b>Power unit sine-wave filter capacitance</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(2), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [ $\mu$ F]	<b>Max</b> 1000.000 [ $\mu$ F]	<b>Factory setting</b> 0.000 [ $\mu$ F]

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<b>p0234</b>	<b>Power unit sine-wave filter capacitance</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(2), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [ $\mu$ F]	<b>Max</b> 1000.000 [ $\mu$ F]	<b>Factory setting</b> 0.000 [ $\mu$ F]

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<b>p0235</b>	<b>Motor reactor in series number</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 2) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 3	<b>Factory setting</b> 1

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<b>r0238</b>	<b>Internal power unit resistance</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [ohm]	<b>Max</b> - [ohm]	<b>Factory setting</b> - [ohm]

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<b>p0249</b>	<b>Power unit cooling type</b>		
S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 2) <b>Data type:</b> Integer16 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p0251[0...n]</b>	<b>Operating hours counter power unit fan</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [h]	<b>Max</b> 4294967295 [h]	<b>Factory setting</b> 0 [h]

<b>p0252</b>	<b>Maximum operating time power unit fan</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [h]	<b>Max</b> 100000 [h]	<b>Factory setting</b> 40000 [h]

<b>p0254[0...n]</b>	<b>Power unit internal fan operating hours counter</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [h]	<b>Max</b> 4294967295 [h]	<b>Factory setting</b> 0 [h]

<b>p0255[0...1]</b>	<b>Power unit contactor monitoring time</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 6500 [ms]	<b>Factory setting</b> 0 [ms]

**p0260 Cooling unit, starting time 1**

A\_INF (Cool\_unit),  
 A\_INF\_840  
 (Cool\_unit), B\_INF  
 (Cool\_unit),  
 B\_INF\_840  
 (Cool\_unit), S\_INF  
 (Cool\_unit),  
 S\_INF\_840  
 (Cool\_unit), SERVO  
 (Cool\_unit),  
 SERVO\_840  
 (Cool\_unit),  
 SERVO\_AC  
 (Cool\_unit),  
 VECTOR  
 (Cool\_unit),  
 VECTOR\_AC  
 (Cool\_unit)

**Can be changed:** U, T  
**Data type:** FloatingPoint32  
**P-Group:** Converter  
**Not for motor type:** -

**Calculated:** -  
**Dynamic index:** -  
**Units group:** -  
**Scaling:** -

**Access level:** 3  
**Func. diagram:** 9795  
**Unit selection:** -  
**Expert list:** 1

**Min**  
 0.0 [s]

**Max**  
 60.0 [s]

**Factory setting**  
 5.0 [s]

**p0261 Cooling unit, starting time 2**

A\_INF (Cool\_unit),  
 A\_INF\_840  
 (Cool\_unit), B\_INF  
 (Cool\_unit),  
 B\_INF\_840  
 (Cool\_unit), S\_INF  
 (Cool\_unit),  
 S\_INF\_840  
 (Cool\_unit), SERVO  
 (Cool\_unit),  
 SERVO\_840  
 (Cool\_unit),  
 SERVO\_AC  
 (Cool\_unit),  
 VECTOR  
 (Cool\_unit),  
 VECTOR\_AC  
 (Cool\_unit)

**Can be changed:** U, T  
**Data type:** FloatingPoint32  
**P-Group:** Converter  
**Not for motor type:** -

**Calculated:** -  
**Dynamic index:** -  
**Units group:** -  
**Scaling:** -

**Access level:** 3  
**Func. diagram:** 9795  
**Unit selection:** -  
**Expert list:** 1

**Min**  
 0.0 [s]

**Max**  
 1200.0 [s]

**Factory setting**  
 180.0 [s]

<b>p0262 Cooling unit, fault conductivity delay time</b>			
A_INF (Cool_unit), A_INF_840 (Cool_unit), B_INF (Cool_unit), B_INF_840 (Cool_unit), S_INF (Cool_unit), S_INF_840 (Cool_unit), SERVO (Cool_unit), SERVO_840 (Cool_unit), SERVO_AC (Cool_unit), VECTOR (Cool_unit), VECTOR_AC (Cool_unit)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9795 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [s]	<b>Max</b> 30.0 [s]	<b>Factory setting</b> 0.0 [s]

<b>p0263 Cooling unit fault liquid flow, delay time</b>			
A_INF (Cool_unit), A_INF_840 (Cool_unit), B_INF (Cool_unit), B_INF_840 (Cool_unit), S_INF (Cool_unit), S_INF_840 (Cool_unit), SERVO (Cool_unit), SERVO_840 (Cool_unit), SERVO_AC (Cool_unit), VECTOR (Cool_unit), VECTOR_AC (Cool_unit)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9795 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [s]	<b>Max</b> 20.0 [s]	<b>Factory setting</b> 3.0 [s]



<b>p0264</b>		<b>Cooling unit, run-on time</b>	
A_INF (Cool_unit), A_INF_840 (Cool_unit), B_INF (Cool_unit), B_INF_840 (Cool_unit), S_INF (Cool_unit), S_INF_840 (Cool_unit), SERVO (Cool_unit), SERVO_840 (Cool_unit), SERVO_AC (Cool_unit), VECTOR (Cool_unit), VECTOR_AC (Cool_unit)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9795 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [s]	<b>Max</b> 180.0 [s]	<b>Factory setting</b> 30.0 [s]

<b>r0265.0...3</b>		<b>BO: Cooling unit, control word</b>	
A_INF (Cool_unit), A_INF_840 (Cool_unit), B_INF (Cool_unit), B_INF_840 (Cool_unit), S_INF (Cool_unit), S_INF_840 (Cool_unit), SERVO (Cool_unit), SERVO_840 (Cool_unit), SERVO_AC (Cool_unit), VECTOR (Cool_unit), VECTOR_AC (Cool_unit)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p0266[0...7]</b>	<b>BI: Cooling unit, feedback signals, signal source</b>		
A_INF (Cool_unit), A_INF_840 (Cool_unit), B_INF (Cool_unit), B_INF_840 (Cool_unit), S_INF (Cool_unit), S_INF_840 (Cool_unit), SERVO (Cool_unit), SERVO_840 (Cool_unit), SERVO_AC (Cool_unit), VECTOR (Cool_unit), VECTOR_AC (Cool_unit)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1

<b>r0267.0...7</b>	<b>BO: Cooling unit status word</b>		
A_INF (Cool_unit), A_INF_840 (Cool_unit), B_INF (Cool_unit), B_INF_840 (Cool_unit), S_INF (Cool_unit), S_INF_840 (Cool_unit), SERVO (Cool_unit), SERVO_840 (Cool_unit), SERVO_AC (Cool_unit), VECTOR (Cool_unit), VECTOR_AC (Cool_unit)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p0278</b>	<b>DC link voltage undervoltage threshold reduction</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -80 [V]	<b>Max</b> 0 [V]	<b>Factory setting</b> 0 [V]

<b>p0279</b>	<b>DC link voltage offset alarm threshold</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -  <b>Min</b> 0 [V]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 500 [V]	<b>Access level:</b> 3 <b>Func. diagram:</b> 8760, 8864, 8964 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0 [V]
<b>p0280</b>	<b>DC link voltage maximum steady-state</b>		
A_INF, A_INF_840	<b>Can be changed:</b> C2(1), T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -  <b>Min</b> 270 [V]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 1500 [V]	<b>Access level:</b> 3 <b>Func. diagram:</b> 8940, 8964 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 660 [V]
<b>p0281</b>	<b>Line supply overvoltage, alarm threshold</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -  <b>Min</b> 100 [%]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 200 [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> 8860, 8960 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 110 [%]
<b>p0282</b>	<b>Line supply undervoltage, alarm threshold</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -  <b>Min</b> 10 [%]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 100 [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> 8860, 8960 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 85 [%]
<b>p0283</b>	<b>Line supply undervoltage, shutdown (trip) threshold</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> C2(1), T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -  <b>Min</b> 10 [%]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 100 [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> 8860, 8960 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 75 [%]
<b>p0284</b>	<b>Line supply frequency exceeded, alarm threshold</b>		
A_INF_840, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -  <b>Min</b> 100.0 [%]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 300.0 [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> 8864, 8964 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 118.0 [%]

<b>p0284</b>	<b>Line supply frequency exceeded, alarm threshold</b>		
A_INF, S_INF	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8864, 8964
	<b>P-Group:</b> Converter	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 100.0 [%]	<b>Max</b> 300.0 [%]	<b>Factory setting</b> 110.0 [%]

<b>p0285</b>	<b>Line supply frequency undershot, alarm threshold</b>		
A_INF_840, S_INF_840	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8864, 8964
	<b>P-Group:</b> Converter	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 100.0 [%]	<b>Factory setting</b> 82.0 [%]

<b>p0285</b>	<b>Line supply frequency undershot, alarm threshold</b>		
A_INF, S_INF	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8864, 8964
	<b>P-Group:</b> Converter	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 100.0 [%]	<b>Factory setting</b> 90.0 [%]

<b>p0287[0...1]</b>	<b>Ground fault monitoring thresholds</b>		
A_INF, A_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 100.0 [%]	<b>Factory setting</b> [0] 6.0 [%] [1] 16.0 [%]

<b>r0289</b>	<b>CO: Maximum power unit output current</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2002	<b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

<b>p0290</b>	<b>Power unit overload response</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8014 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>p0290</b>	<b>Power unit overload response</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8014 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 0
<b>r0293</b>	<b>CO: Power unit alarm threshold model temperature</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> 8014 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]
<b>p0294</b>	<b>Power unit alarm with I2t overload</b>		
A_INF, A_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8014 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 10.0 [%]	<b>Max</b> 100.0 [%]	<b>Factory setting</b> 95.0 [%]
<b>p0294</b>	<b>Power unit alarm with I2t overload</b>		
B_INF, B_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8014 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 10.0 [%]	<b>Max</b> 100.0 [%]	<b>Factory setting</b> 95.0 [%]

<b>p0295</b>	<b>Fan run-on time</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [s]	<b>Max</b> 600 [s]	<b>Factory setting</b> 0 [s]
<b>r0296</b>	<b>DC link voltage undervoltage threshold</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8750, 8760, 8850, 8864, 8950, 8964 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]
<b>r0296</b>	<b>DC link voltage undervoltage threshold</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]
<b>r0297</b>	<b>DC link voltage overvoltage threshold</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8750, 8760, 8850, 8864, 8950, 8964 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]
<b>p0300[0...n]</b>	<b>Motor type selection</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 10001	<b>Factory setting</b> 0

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<b>p0300[0...n]</b>	<b>Motor type selection</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 6310 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 10001	<b>Factory setting</b> 0

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<b>p0301[0...n]</b>	<b>Motor code number selection</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor <b>Not for motor type:</b> FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0

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<b>p0301[0...n]</b>	<b>Motor code number selection</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor <b>Not for motor type:</b> FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0

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<b>p0301[0...n]</b>	<b>Motor code number selection</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor <b>Not for motor type:</b> FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0

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<b>r0302[0...n]</b>	<b>Motor code number of motor with DRIVE-CLiQ</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r0303[0...n]</b>	<b>Motor with DRIVE-CLiQ status word</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>p0304[0...n]</b>	<b>Rated motor voltage</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 6300, 6724 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [Vrms]	<b>Max</b> 20000 [Vrms]	<b>Factory setting</b> 0 [Vrms]

<b>p0305[0...n]</b>	<b>Rated motor current</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 6300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Arms]	<b>Max</b> 10000.00 [Arms]	<b>Factory setting</b> 0.00 [Arms]

<b>p0305[0...n]</b>	<b>Rated motor current</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 6300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Arms]	<b>Max</b> 10000.00 [Arms]	<b>Factory setting</b> 0.00 [Arms]

<b>p0306[0...n]</b>	<b>Number of motors connected in parallel</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 10	<b>Factory setting</b> 1

<b>p0306[0...n]</b>	<b>Number of motors connected in parallel</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Motor <b>Not for motor type:</b> FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 50	<b>Factory setting</b> 1

<b>p0307[0...n]</b>	<b>Rated motor power</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 14_6 <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [kW]	<b>Max</b> 100000.00 [kW]	<b>Factory setting</b> 0.00 [kW]



<b>p0307[0...n]</b>	<b>Rated motor power</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 14_6 <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1
	<b>Min</b> -100000.00 [kW]	<b>Max</b> 100000.00 [kW]	<b>Factory setting</b> 0.00 [kW]
<b>p0308[0...n]</b>	<b>Rated motor power factor</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 1.000	<b>Factory setting</b> 0.000
<b>p0309[0...n]</b>	<b>Rated motor efficiency</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 99.9 [%]	<b>Factory setting</b> 0.0 [%]
<b>p0310[0...n]</b>	<b>Rated motor frequency</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Hz]	<b>Max</b> 3000.00 [Hz]	<b>Factory setting</b> 0.00 [Hz]
<b>p0310[0...n]</b>	<b>Rated motor frequency</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 6300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Hz]	<b>Max</b> 3000.00 [Hz]	<b>Factory setting</b> 0.00 [Hz]
<b>p0311[0...n]</b>	<b>Rated motor speed</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [rpm]	<b>Max</b> 210000.0 [rpm]	<b>Factory setting</b> 0.0 [rpm]

<b>p0311[0...n]</b>	<b>Rated motor velocity</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [m/min]	<b>Max</b> 6000.0 [m/min]	<b>Factory setting</b> 0.0 [m/min]
<b>p0311[0...n]</b>	<b>Rated motor speed</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [rpm]	<b>Max</b> 210000.0 [rpm]	<b>Factory setting</b> 0.0 [rpm]
<b>p0312[0...n]</b>	<b>Rated motor torque</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 7_4 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Nm]	<b>Max</b> 1000000.00 [Nm]	<b>Factory setting</b> 0.00 [Nm]
<b>p0312[0...n]</b>	<b>Rated motor force</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 8_4 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [N]	<b>Max</b> 1000000.00 [N]	<b>Factory setting</b> 0.00 [N]
<b>r0313[0...n]</b>	<b>Motor pole pair number, actual (or calculated)</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 5300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r0313[0...n]</b>	<b>Motor pole pair number, actual (or calculated)</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 5300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p0314[0...n]</b>	<b>Motor pole pair number</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 4000	
<b>p0314[0...n]</b>	<b>Motor pole pair number</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 255	
<b>p0315[0...n]</b>	<b>Motor pole pair width</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 30.00 [mm]
	<b>Min</b> 1.00 [mm]	<b>Max</b> 1000.00 [mm]	
<b>p0316[0...n]</b>	<b>Motor torque constant</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1, 3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 28_1 <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [Nm/A]
	<b>Min</b> 0.00 [Nm/A]	<b>Max</b> 400.00 [Nm/A]	
<b>p0316[0...n]</b>	<b>Motor force constant</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(1, 3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 29_1 <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [N/Arms]
	<b>Min</b> 0.00 [N/Arms]	<b>Max</b> 15000.00 [N/Arms]	
<b>p0316[0...n]</b>	<b>Motor torque constant</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 28_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [Nm/A]
	<b>Min</b> 0.00 [Nm/A]	<b>Max</b> 400.00 [Nm/A]	

<b>p0317[0...n]</b>	<b>Motor voltage constant</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.0 [Vrms]
	<b>Min</b> 0.0 [Vrms]	<b>Max</b> 24000.0 [Vrms]	

<b>p0317[0...n]</b>	<b>Motor voltage constant</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.0 [Vrms s/m]
	<b>Min</b> 0.0 [Vrms s/m]	<b>Max</b> 5000.0 [Vrms s/m]	

<b>p0318[0...n]</b>	<b>Motor stall current</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8017 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [Arms]
	<b>Min</b> 0.00 [Arms]	<b>Max</b> 10000.00 [Arms]	

<b>p0318[0...n]</b>	<b>Motor stall current</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 8017 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [Arms]
	<b>Min</b> 0.00 [Arms]	<b>Max</b> 10000.00 [Arms]	

<b>p0319[0...n]</b>	<b>Motor stall torque</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 7_4 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [Nm]
	<b>Min</b> 0.00 [Nm]	<b>Max</b> 100000.00 [Nm]	

<b>p0319[0...n]</b>	<b>Motor stall force</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 8_4 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [N]
	<b>Min</b> 0.00 [N]	<b>Max</b> 100000.00 [N]	

<b>p0320[0...n]</b>	<b>Motor rated magnetizing current/short-circuit current</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5722 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [Arms]	<b>Max</b> 5000.000 [Arms]	<b>Factory setting</b> 0.000 [Arms]
<b>p0322[0...n]</b>	<b>Maximum motor speed</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [rpm]	<b>Max</b> 210000.0 [rpm]	<b>Factory setting</b> 0.0 [rpm]
<b>p0322[0...n]</b>	<b>Motor maximum velocity</b>		
SERVO (Lin, Spin_diag), SERVO_840 (Lin, Spin_diag), SERVO_AC (Lin, Spin_diag)	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [m/min]	<b>Max</b> 1000.0 [m/min]	<b>Factory setting</b> 0.0 [m/min]
<b>p0322[0...n]</b>	<b>Maximum motor speed</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [rpm]	<b>Max</b> 260000.0 [rpm]	<b>Factory setting</b> 0.0 [rpm]
<b>p0322[0...n]</b>	<b>Maximum motor speed</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [rpm]	<b>Max</b> 210000.0 [rpm]	<b>Factory setting</b> 0.0 [rpm]
<b>p0323[0...n]</b>	<b>Maximum motor current</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 5722 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Arms]	<b>Max</b> 20000.00 [Arms]	<b>Factory setting</b> 0.00 [Arms]

<b>p0323[0...n]</b>	<b>Maximum motor current</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5722 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Arms]	<b>Max</b> 20000.00 [Arms]	<b>Factory setting</b> 0.00 [Arms]

<b>p0324[0...n]</b>	<b>Winding maximum speed</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [rpm]	<b>Max</b> 210000.0 [rpm]	<b>Factory setting</b> 0.0 [rpm]

<b>p0324[0...n]</b>	<b>Winding maximum velocity</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [m/min]	<b>Max</b> 1000.0 [m/min]	<b>Factory setting</b> 0.0 [m/min]

<b>p0324[0...n]</b>	<b>Winding maximum speed</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [rpm]	<b>Max</b> 210000.0 [rpm]	<b>Factory setting</b> 0.0 [rpm]

<b>p0325[0...n]</b>	<b>Motor pole position identification current, 1st phase</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [Arms]	<b>Max</b> 10000.000 [Arms]	<b>Factory setting</b> 0.000 [Arms]

<b>p0326[0...n]</b>	<b>Motor stall torque correction factor</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 5 [%]	<b>Max</b> 300 [%]	<b>Factory setting</b> 60 [%]

<b>p0326[0...n]</b>	<b>Motor stall force correction factor</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 60 [%]
	<b>Min</b> 5 [%]	<b>Max</b> 300 [%]	
<b>p0327[0...n]</b>	<b>Optimum motor load angle</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5722 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 90.0 [°]
	<b>Min</b> 0.0 [°]	<b>Max</b> 135.0 [°]	
<b>p0328[0...n]</b>	<b>Motor reluctance torque constant</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [mH]
	<b>Min</b> -1000.00 [mH]	<b>Max</b> 1000.00 [mH]	
<b>p0328[0...n]</b>	<b>Motor reluctance force constant</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [mH]
	<b>Min</b> -1000.00 [mH]	<b>Max</b> 1000.00 [mH]	
<b>p0329[0...n]</b>	<b>Motor pole position identification current</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [Arms]
	<b>Min</b> 0.00 [Arms]	<b>Max</b> 10000.00 [Arms]	
<b>r0330[0...n]</b>	<b>Rated motor slip</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> - [Hz]
	<b>Min</b> - [Hz]	<b>Max</b> - [Hz]	

<b>r0331[0...n]</b>	<b>Actual motor magnetizing current/short-circuit current</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL, FEM  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5722, 6722, 6724 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]
<b>r0332[0...n]</b>	<b>Rated motor power factor</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -
<b>r0333[0...n]</b>	<b>Rated motor torque</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -  <b>Min</b> - [Nm]	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 7_4 <b>Scaling:</b> -  <b>Max</b> - [Nm]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1  <b>Factory setting</b> - [Nm]
<b>r0333[0...n]</b>	<b>Rated motor force</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -  <b>Min</b> - [N]	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 8_4 <b>Scaling:</b> -  <b>Max</b> - [N]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1  <b>Factory setting</b> - [N]
<b>r0334[0...n]</b>	<b>Actual motor-torque constant</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM  <b>Min</b> - [Nm/A]	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 28_1 <b>Scaling:</b> -  <b>Max</b> - [Nm/A]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1  <b>Factory setting</b> - [Nm/A]
<b>r0334[0...n]</b>	<b>Actual motor force constant</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM  <b>Min</b> - [N/Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 29_1 <b>Scaling:</b> -  <b>Max</b> - [N/Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1  <b>Factory setting</b> - [N/Arms]



<b>r0334[0...n]</b>	<b>Actual motor-torque constant</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 28_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1 <b>Factory setting:</b> - [Nm/A]
	<b>Min</b> - [Nm/A]	<b>Max</b> - [Nm/A]	
<b>p0335[0...n]</b>	<b>Motor cooling type</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3), T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 128	
<b>r0336[0...n]</b>	<b>Actual rated motor frequency</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> - [Hz]
	<b>Min</b> - [Hz]	<b>Max</b> - [Hz]	
<b>r0337[0...n]</b>	<b>Rated motor EMF</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> - [Vrms]
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	
<b>r0337[0...n]</b>	<b>Rated motor EMF</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> - [Vrms s/m]
	<b>Min</b> - [Vrms s/m]	<b>Max</b> - [Vrms s/m]	
<b>p0338[0...n]</b>	<b>Motor limit current</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [Arms]
	<b>Min</b> 0.00 [Arms]	<b>Max</b> 10000.00 [Arms]	

<b>r0339[0...n]</b>	<b>Rated motor voltage</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]

<b>p0340</b>	<b>Automatic calculation, control parameters</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 0

<b>p0340[0...n]</b>	<b>Automatic calculation, motor/control parameters</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 5	<b>Factory setting</b> 0

<b>p0341[0...n]</b>	<b>Motor moment of inertia</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 25_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1700, 5042, 5210, 6030, 6031 <b>Unit selection:</b> p0100 <b>Expert list:</b> 1
	<b>Min</b> 0.000000 [kgm <sup>2</sup> ]	<b>Max</b> 100000.000000 [kgm <sup>2</sup> ]	<b>Factory setting</b> 0.000000 [kgm <sup>2</sup> ]

<b>p0341[0...n]</b>	<b>Motor weight</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 27_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5042, 5210 <b>Unit selection:</b> p0100 <b>Expert list:</b> 1
	<b>Min</b> 0.000000 [kg]	<b>Max</b> 10000.000000 [kg]	<b>Factory setting</b> 0.000000 [kg]

<b>p0342[0...n]</b>	<b>Ratio between the total and motor moment of inertia</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL  <b>Min</b> 1.000	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 10000.000	<b>Access level:</b> 3 <b>Func. diagram:</b> 1700, 5042, 5210, 6030, 6031 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 1.000
<b>p0342[0...n]</b>	<b>Ratio between the total and motor force of inertia</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL  <b>Min</b> 1.000	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 10000.000	<b>Access level:</b> 3 <b>Func. diagram:</b> 5042, 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 1.000
<b>r0343[0...n]</b>	<b>Rated motor current identified</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -  <b>Min</b> 0.00 [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 10000.00 [Arms]	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]
<b>p0344[0...n]</b>	<b>Motor weight (for the thermal motor model)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -  <b>Min</b> 0.0 [kg]	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 27_1 <b>Scaling:</b> -  <b>Max</b> 50000.0 [kg]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1  <b>Factory setting</b> 0.0 [kg]
<b>r0345[0...n]</b>	<b>Nominal motor starting time</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL  <b>Min</b> - [s]	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [s]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [s]
<b>p0346[0...n]</b>	<b>Motor excitation build-up time</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -  <b>Min</b> -20.000 [s]	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> MDS, p0130  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 20.000 [s]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.000 [s]

<b>p0347[0...n]</b>	<b>Motor de-excitation time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.000 [s]
	<b>Min</b> 0.000 [s]	<b>Max</b> 20.000 [s]	

<b>p0347[0...n]</b>	<b>Motor de-excitation time</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.000 [s]
	<b>Min</b> 0.000 [s]	<b>Max</b> 20.000 [s]	

<b>p0348[0...n]</b>	<b>Speed at the start of field weakening Vdc = 600 V</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5722 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.0 [rpm]
	<b>Min</b> 0.0 [rpm]	<b>Max</b> 210000.0 [rpm]	

<b>p0348[0...n]</b>	<b>Velocity at the start of field weakening Vdc = 600 V</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5722 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.0 [m/min]
	<b>Min</b> 0.0 [m/min]	<b>Max</b> 1000.0 [m/min]	

<b>p0349</b>	<b>System of units, motor equivalent circuit diagram data</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3) <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 1
	<b>Min</b> 1	<b>Max</b> 2	

<b>p0350[0...n]</b>	<b>Motor stator resistance, cold</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 16_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> p0349 <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00000 [ohm]
	<b>Min</b> 0.00000 [ohm]	<b>Max</b> 2000.00000 [ohm]	

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<b>p0352[0...n]</b>	<b>Cable resistance</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 16_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [ohm]	<b>Max</b> 120.00000 [ohm]	<b>Factory setting</b> 0.00000 [ohm]

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<b>p0352[0...n]</b>	<b>Cable resistance</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 16_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [ohm]	<b>Max</b> 120.00000 [ohm]	<b>Factory setting</b> 0.00000 [ohm]

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<b>p0353[0...n]</b>	<b>Motor series inductance</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 15_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [mH]	<b>Max</b> 1000000.000 [mH]	<b>Factory setting</b> 0.000 [mH]

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<b>p0353[0...n]</b>	<b>Motor series inductance</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 15_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [mH]	<b>Max</b> 1000000.000 [mH]	<b>Factory setting</b> 0.000 [mH]

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<b>p0354[0...n]</b>	<b>Motor rotor resistance cold / damping resistance d axis</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 16_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [ohm]	<b>Max</b> 300.00000 [ohm]	<b>Factory setting</b> 0.00000 [ohm]

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<b>p0354[0...n]</b>	<b>Motor rotor resistance cold / damping resistance d axis</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 16_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [ohm]	<b>Max</b> 300.00000 [ohm]	<b>Factory setting</b> 0.00000 [ohm]

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<b>p0355[0...n]</b>	<b>Motor damping resistance, q axis</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T	<b>Calculated:</b> CALC_MOD_EQU	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> 6727
	<b>P-Group:</b> Motor	<b>Units group:</b> 16_1	<b>Unit selection:</b> p0349
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00000 [ohm]	<b>Max</b> 300.00000 [ohm]	<b>Factory setting</b> 0.00000 [ohm]

<b>p0356[0...n]</b>	<b>Motor stator leakage inductance</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3), U, T	<b>Calculated:</b> CALC_MOD_EQU	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor	<b>Units group:</b> 15_1	<b>Unit selection:</b> p0349
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00000 [mH]	<b>Max</b> 1000.00000 [mH]	<b>Factory setting</b> 0.00000 [mH]

<b>p0356[0...n]</b>	<b>Motor stator leakage inductance</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T	<b>Calculated:</b> CALC_MOD_EQU	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor	<b>Units group:</b> 15_1	<b>Unit selection:</b> p0349
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00000 [mH]	<b>Max</b> 1000.00000 [mH]	<b>Factory setting</b> 0.00000 [mH]

<b>p0357[0...n]</b>	<b>Motor stator inductance, d axis</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T	<b>Calculated:</b> CALC_MOD_EQU	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor	<b>Units group:</b> 15_1	<b>Unit selection:</b> p0349
	<b>Not for motor type:</b> ASM, REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00000 [mH]	<b>Max</b> 1000.00000 [mH]	<b>Factory setting</b> 0.00000 [mH]

<b>p0358[0...n]</b>	<b>Motor rotor leakage inductance / damping inductance, d axis</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3), U, T	<b>Calculated:</b> CALC_MOD_EQU	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor	<b>Units group:</b> 15_1	<b>Unit selection:</b> p0349
	<b>Not for motor type:</b> PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00000 [mH]	<b>Max</b> 1000.00000 [mH]	<b>Factory setting</b> 0.00000 [mH]

<b>p0358[0...n]</b>	<b>Motor rotor leakage inductance / damping inductance, d axis</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T	<b>Calculated:</b> CALC_MOD_EQU	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> 6727
	<b>P-Group:</b> Motor	<b>Units group:</b> 15_1	<b>Unit selection:</b> p0349
	<b>Not for motor type:</b> PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00000 [mH]	<b>Max</b> 1000.00000 [mH]	<b>Factory setting</b> 0.00000 [mH]

<b>p0359[0...n]</b>	<b>Motor damping inductance, q axis</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 15_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [mH]	<b>Max</b> 1000.00000 [mH]	<b>Factory setting</b> 0.00000 [mH]
<b>p0360[0...n]</b>	<b>Motor magnetizing inductance/magn. inductance, d axis saturated</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 15_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [mH]	<b>Max</b> 10000.00000 [mH]	<b>Factory setting</b> 0.00000 [mH]
<b>p0360[0...n]</b>	<b>Motor magnetizing inductance/magn. inductance, d axis saturated</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 15_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [mH]	<b>Max</b> 10000.00000 [mH]	<b>Factory setting</b> 0.00000 [mH]
<b>p0361[0...n]</b>	<b>Motor magnetizing inductance q axis, saturated</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 15_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [mH]	<b>Max</b> 10000.00000 [mH]	<b>Factory setting</b> 0.00000 [mH]
<b>p0362[0...n]</b>	<b>Motor saturation characteristic flux 1</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6723, 6726 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 10.0 [%]	<b>Max</b> 300.0 [%]	<b>Factory setting</b> 60.0 [%]
<b>p0363[0...n]</b>	<b>Motor saturation characteristic flux 2</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6723, 6726 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 10.0 [%]	<b>Max</b> 300.0 [%]	<b>Factory setting</b> 85.0 [%]

<b>p0364[0...n]</b>	<b>Motor saturation characteristic flux 3</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> 6723, 6726
	<b>P-Group:</b> Motor	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 10.0 [%]	<b>Max</b> 300.0 [%]	<b>Factory setting</b> 115.0 [%]

<b>p0365[0...n]</b>	<b>Motor saturation characteristic flux 4</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> 6723, 6726
	<b>P-Group:</b> Motor	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 10.0 [%]	<b>Max</b> 300.0 [%]	<b>Factory setting</b> 125.0 [%]

<b>p0366[0...n]</b>	<b>Motor saturation characteristic I_mag 1</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> 6723, 6726
	<b>P-Group:</b> Motor	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 5.0 [%]	<b>Max</b> 800.0 [%]	<b>Factory setting</b> 50.0 [%]

<b>p0367[0...n]</b>	<b>Motor saturation characteristic I_mag 2</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> 6723, 6726
	<b>P-Group:</b> Motor	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 5.0 [%]	<b>Max</b> 800.0 [%]	<b>Factory setting</b> 75.0 [%]

<b>p0368[0...n]</b>	<b>Motor saturation characteristic I_mag 3</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> 6723, 6726
	<b>P-Group:</b> Motor	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 5.0 [%]	<b>Max</b> 800.0 [%]	<b>Factory setting</b> 150.0 [%]

<b>p0369[0...n]</b>	<b>Motor saturation characteristic I_mag 4</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> 6723, 6726
	<b>P-Group:</b> Motor	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 5.0 [%]	<b>Max</b> 800.0 [%]	<b>Factory setting</b> 210.0 [%]



<b>r0370[0...n]</b>	<b>Motor stator resistance, cold</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 16_1 <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> - [ohm]	<b>Max</b> - [ohm]	<b>Factory setting</b> - [ohm]
<b>r0372[0...n]</b>	<b>Cable resistance</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 16_1 <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> - [ohm]	<b>Max</b> - [ohm]	<b>Factory setting</b> - [ohm]
<b>r0373[0...n]</b>	<b>Motor rated stator resistance</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 16_1 <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> - [ohm]	<b>Max</b> - [ohm]	<b>Factory setting</b> - [ohm]
<b>r0374[0...n]</b>	<b>Motor rotor resistance cold / damping resistance d axis</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 16_1 <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> - [ohm]	<b>Max</b> - [ohm]	<b>Factory setting</b> - [ohm]
<b>r0375[0...n]</b>	<b>Motor damping resistance, q axis</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 16_1 <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> - [ohm]	<b>Max</b> - [ohm]	<b>Factory setting</b> - [ohm]
<b>r0376[0...n]</b>	<b>Rated motor rotor resistance</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 16_1 <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> - [ohm]	<b>Max</b> - [ohm]	<b>Factory setting</b> - [ohm]

<b>r0377[0...n]</b>	<b>Motor leakage inductance, total</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor Not for motor type: -	Calculated: - Dynamic index: MDS, p0130 Units group: 15_1 Scaling: -	Access level: 4 Func. diagram: 6640 Unit selection: p0349 Expert list: 1 Factory setting - [mH]
	Min - [mH]	Max - [mH]	

<b>r0377[0...n]</b>	<b>Motor leakage inductance, total</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor Not for motor type: -	Calculated: - Dynamic index: MDS, p0130 Units group: 15_1 Scaling: -	Access level: 4 Func. diagram: 6640 Unit selection: p0349 Expert list: 1 Factory setting - [mH]
	Min - [mH]	Max - [mH]	

<b>r0378[0...n]</b>	<b>Motor stator inductance, d axis</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor Not for motor type: ASM, REL, FEM	Calculated: - Dynamic index: MDS, p0130 Units group: 15_1 Scaling: -	Access level: 4 Func. diagram: - Unit selection: p0349 Expert list: 1 Factory setting - [mH]
	Min - [mH]	Max - [mH]	

<b>r0380[0...n]</b>	<b>Motor damping inductance, d axis</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor Not for motor type: ASM, PEM, REL	Calculated: - Dynamic index: MDS, p0130 Units group: 15_1 Scaling: -	Access level: 4 Func. diagram: - Unit selection: p0349 Expert list: 1 Factory setting - [mH]
	Min - [mH]	Max - [mH]	

<b>r0381[0...n]</b>	<b>Motor damping inductance, q axis</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor Not for motor type: ASM, PEM, REL	Calculated: - Dynamic index: MDS, p0130 Units group: 15_1 Scaling: -	Access level: 4 Func. diagram: - Unit selection: p0349 Expert list: 1 Factory setting - [mH]
	Min - [mH]	Max - [mH]	

<b>r0382[0...n]</b>	<b>Motor magnetizing inductance transformed / Lh d axis saturated</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor Not for motor type: PEM, REL	Calculated: - Dynamic index: MDS, p0130 Units group: 15_1 Scaling: -	Access level: 4 Func. diagram: - Unit selection: p0349 Expert list: 1 Factory setting - [mH]
	Min - [mH]	Max - [mH]	

<b>r0383[0...n]</b>	<b>Motor magnetizing inductance q axis, saturated</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor	<b>Units group:</b> 15_1	<b>Unit selection:</b> p0349
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [mH]	<b>Max</b> - [mH]	<b>Factory setting</b> - [mH]
<b>r0384[0...n]</b>	<b>Motor rotor time constant / damping time constant d axis</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> 6722
	<b>P-Group:</b> Motor	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [ms]	<b>Max</b> - [ms]	<b>Factory setting</b> - [ms]
<b>r0385[0...n]</b>	<b>Motor damping time constant, q axis</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [ms]	<b>Max</b> - [ms]	<b>Factory setting</b> - [ms]
<b>r0386[0...n]</b>	<b>Motor stator leakage time constant</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [ms]	<b>Max</b> - [ms]	<b>Factory setting</b> - [ms]
<b>r0387[0...n]</b>	<b>Motor stator leakage time constant, q axis</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> ASM, REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [ms]	<b>Max</b> - [ms]	<b>Factory setting</b> - [ms]
<b>p0389[0...n]</b>	<b>Excitation rated no-load current</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3)	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> 6727
	<b>P-Group:</b> Motor	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [A]	<b>Max</b> 10000.00 [A]	<b>Factory setting</b> 0.00 [A]

<b>p0390[0...n]</b>	<b>Rated excitation current</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [A]
	<b>Min</b> 0.00 [A]	<b>Max</b> 10000.00 [A]	

<b>p0391[0...n]</b>	<b>Current controller adaptation, starting point KP</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5714 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [Arms]
	<b>Min</b> 0.00 [Arms]	<b>Max</b> 6000.00 [Arms]	

<b>p0391[0...n]</b>	<b>Current controller adaptation, starting point KP</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6714 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [Arms]
	<b>Min</b> 0.00 [Arms]	<b>Max</b> 6000.00 [Arms]	

<b>p0392[0...n]</b>	<b>Current controller adaptation, starting point KP adapted</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5714 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [Arms]
	<b>Min</b> 0.00 [Arms]	<b>Max</b> 6000.00 [Arms]	

<b>p0392[0...n]</b>	<b>Current controller adaptation, starting point KP adapted</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6714 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [Arms]
	<b>Min</b> 0.00 [Arms]	<b>Max</b> 6000.00 [Arms]	

<b>p0393[0...n]</b>	<b>Current controller adaptation p gain adaptation</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5714 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 100.00 [%]
	<b>Min</b> 0.00 [%]	<b>Max</b> 1000.00 [%]	

<b>p0393[0...n]</b>	<b>Current controller adaptation P gain scaling</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6714 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 100.00 [%]
	<b>Min</b> 0.00 [%]	<b>Max</b> 1000.00 [%]	
<b>r0395[0...n]</b>	<b>Actual stator resistance</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 16_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6300, 6730, 6731, 6732 <b>Unit selection:</b> p0349 <b>Expert list:</b> 1 <b>Factory setting:</b> - [ohm]
	<b>Min</b> - [ohm]	<b>Max</b> - [ohm]	
<b>r0396[0...n]</b>	<b>Actual rotor resistance</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 16_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6730 <b>Unit selection:</b> p0349 <b>Expert list:</b> 1 <b>Factory setting:</b> - [ohm]
	<b>Min</b> - [ohm]	<b>Max</b> - [ohm]	
<b>p0398[0...n]</b>	<b>Angle magn decoupling (cross saturation) coeff 1</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, FEM	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.000000
	<b>Min</b> -10.000000	<b>Max</b> 10.000000	
<b>p0399[0...n]</b>	<b>Angle magn decoupling (cross saturation) coeff 3</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, FEM	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.000000
	<b>Min</b> -10.000000	<b>Max</b> 10.000000	

<b>p0400[0...n]</b>	<b>Encoder type selection</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 4) <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 1580, 4704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 10100	<b>Factory setting</b> 0
<b>p0401[0...n]</b>	<b>Encoder type, OEM selection</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 4) <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1580, 4704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 32767	<b>Factory setting</b> 0
<b>p0402[0...n]</b>	<b>Gearbox type selection</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 4) <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 10100	<b>Factory setting</b> 9999
<b>p0404[0...n]</b>	<b>Encoder configuration effective</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4010, 4704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 0000 0000 0000 0000 bin
<b>p0405[0...n]</b>	<b>Square-wave encoder track A/B</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 1111 bin

<b>p0407[0...n]</b>	<b>Linear encoder grid division</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4010, 4704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [nm]	<b>Max</b> 250000000 [nm]	<b>Factory setting</b> 16000 [nm]
<b>p0408[0...n]</b>	<b>Rotary encoder pulse No.</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4010, 4704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 16777215	<b>Factory setting</b> 2048
<b>p0408</b>	<b>TM41 encoder emulation pulse number</b>		
TM41	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9674, 9676 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 32	<b>Max</b> 16384	<b>Factory setting</b> 2048
<b>p0410[0...n]</b>	<b>Encoder inversion actual value</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4704, 4710, 4711, 4715 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin
<b>p0410[0...n]</b>	<b>Encoder inversion actual value</b>		
ENC (Lin_enc), ENC_840 (Lin_enc), SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4704, 4710, 4711, 4715 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin

<b>p0411[0...n]</b>	<b>Measuring gear, configuration</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin

<b>p0412[0...n]</b>	<b>Measuring gear, absolute encoder, rotary, revolutions, virtual</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 4194303	<b>Factory setting</b> 0

<b>p0413[0...n]</b>	<b>Measuring gear, position tracking tolerance window</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00	<b>Max</b> 4294967300.00	<b>Factory setting</b> 0.00

<b>p0414[0...n]</b>	<b>Redundant coarse position value relevant bits (identified)</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 16	<b>Factory setting</b> 16

<b>p0415[0...n]</b>	<b>Gx_XIST1 Coarse position safe most significant bit (identified)</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 31	<b>Factory setting</b> 14



<b>p0416[0...n]</b>	<b>Non safety-relevant meas. steps position value pos1 (detected)</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 4294967295	<b>Factory setting</b> 22000
<b>p0417[0...n]</b>	<b>Encoder safety comparison algorithm (detected)</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 255
<b>p0418[0...n]</b>	<b>Fine resolution Gx_XIST1 (in bits)</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4010, 4704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 2	<b>Max</b> 18	<b>Factory setting</b> 11
<b>p0418</b>	<b>TM41 encoder emulation fine resolution Gx_XIST1 (in bits)</b>		
TM41	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9674, 9676 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 2	<b>Max</b> 18	<b>Factory setting</b> 11
<b>p0419[0...n]</b>	<b>Fine resolution absolute value Gx_XIST2 (in bits)</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4704, 4710 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 2	<b>Max</b> 18	<b>Factory setting</b> 9

<b>p0420[0...n]</b>	<b>Encoder connection</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin
<b>p0421[0...n]</b>	<b>Absolute encoder rotary multiturn resolution</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 4096
<b>p0422[0...n]</b>	<b>Absolute encoder linear measuring step resolution</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [nm]	<b>Max</b> 4294967295 [nm]	<b>Factory setting</b> 100 [nm]
<b>p0423[0...n]</b>	<b>Absolute encoder rotary singleturn resolution</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1073741823	<b>Factory setting</b> 8192
<b>p0424[0...n]</b>	<b>Encoder, linear zero mark distance</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [mm]	<b>Max</b> 65535 [mm]	<b>Factory setting</b> 20 [mm]

<b>p0425[0...n]</b>	<b>Encoder, rotary zero mark distance</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4704, 8570 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 16777215	<b>Factory setting</b> 2048
<b>p0426[0...n]</b>	<b>Encoder zero mark differential distance</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 65535	<b>Factory setting</b> 1
<b>p0427[0...n]</b>	<b>Encoder SSI baud rate</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [kHz]	<b>Max</b> 65535 [kHz]	<b>Factory setting</b> 100 [kHz]
<b>p0428[0...n]</b>	<b>Encoder SSI monoflop time</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [µs]	<b>Max</b> 65535 [µs]	<b>Factory setting</b> 30 [µs]
<b>p0429[0...n]</b>	<b>Encoder SSI configuration</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 bin

<b>p0430[0...n]</b>	<b>Sensor Module configuration</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1110 0000 0000 1000 0000 0000 0000 0000 bin

<b>p0430[0...n]</b>	<b>Sensor Module configuration</b>		
ENC (Lin_enc), ENC_840 (Lin_enc), SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1110 0000 0000 1000 0000 0000 0000 0000 bin

<b>p0431[0...n]</b>	<b>Angular commutation offset</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -180.00 [°]	<b>Max</b> 180.00 [°]	<b>Factory setting</b> 0.00 [°]

<b>p0432[0...n]</b>	<b>Gearbox factor, encoder revolutions</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 10000	<b>Factory setting</b> 1

<b>p0433[0...n]</b>	<b>Gearbox factor, motor/load revolutions</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 10000	<b>Factory setting</b> 1

<b>p0434[0...n]</b>	<b>Encoder SSI error bit</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0
<b>p0435[0...n]</b>	<b>Encoder SSI alarm bit</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0
<b>p0436[0...n]</b>	<b>Encoder SSI parity bit</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0
<b>p0437[0...n]</b>	<b>Sensor Module configuration extended</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0011 0000 0000 0000 0000 1000 0000 0000 bin
<b>p0437[0...n]</b>	<b>Sensor Module configuration extended</b>		
ENC (Lin_enc), ENC_840 (Lin_enc), SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0011 0000 0000 0000 0000 1000 0000 0000 bin

<b>p0438[0...n]</b>	<b>Squarewave encoder filter time</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 100.00 [µs]	<b>Factory setting</b> 0.64 [µs]

<b>p0439[0...n]</b>	<b>Encoder ramp-up time</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 65535 [ms]	<b>Factory setting</b> 0 [ms]

<b>p0440[0...n]</b>	<b>Copy encoder serial number</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p0441[0...n]</b>	<b>Encoder commissioning serial number part 1</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

<b>p0442[0...n]</b>	<b>Encoder commissioning serial number part 2</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

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<b>p0443[0...n]</b>	<b>Encoder commissioning serial number part 3</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

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<b>p0444[0...n]</b>	<b>Encoder commissioning serial number part 4</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

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<b>p0445[0...n]</b>	<b>Encoder commissioning serial number part 5</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

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<b>p0446[0...n]</b>	<b>Encoder SSI number of bits before the absolute value</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0

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<b>p0447[0...n]</b>	<b>Encoder SSI number of bits absolute value</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 25

<b>p0448[0...n]</b>	<b>Encoder SSI number of bits after the absolute value</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0

<b>p0449[0...n]</b>	<b>Encoder SSI number of bits, filler bits</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 1

<b>r0451[0...2]</b>	<b>Commutation angle factor</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4710 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r0452</b>	<b>Squarewave encoder filter time display</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [µs]	<b>Max</b> - [µs]	<b>Factory setting</b> - [µs]

<b>r0452[0...2]</b>	<b>Squarewave encoder filter time display</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [µs]	<b>Max</b> - [µs]	<b>Factory setting</b> - [µs]



<b>p0453[0...n]</b>	<b>Pulse encoder evaluation zero speed measuring time</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.10 [ms]	<b>Max</b> 10000.00 [ms]	<b>Factory setting</b> 1000.00 [ms]
<b>r0455</b>	<b>Encoder configuration recognized</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r0455[0...2]</b>	<b>Encoder configuration recognized</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r0456</b>	<b>Encoder configuration supported</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r0456[0...2]</b>	<b>Encoder configuration supported</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r0458</b>	<b>Sensor Module properties</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r0458</b>	<b>Sensor Module properties</b>		
ENC (Lin_enc), ENC_840 (Lin_enc)	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 4704 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0458[0...2]</b>	<b>Sensor Module properties</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 4704 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0458[0...2]</b>	<b>Sensor Module properties</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 4704 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0459</b>	<b>Sensor Module properties extended</b>		
ENC, ENC_840	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0459</b>	<b>Sensor Module properties extended</b>		
ENC (Lin_enc), ENC_840 (Lin_enc)	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0459[0...2]</b>	<b>Sensor Module properties extended</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

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<b>r0459[0...2]</b>	<b>Sensor Module properties extended</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r0460</b>	<b>Encoder serial number part 1</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r0460[0...2]</b>	<b>Encoder serial number part 1</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r0461</b>	<b>Encoder serial number part 2</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r0461[0...2]</b>	<b>Encoder serial number part 2</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r0462</b>	<b>Encoder serial number part 3</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r0462[0...2]</b>	<b>Encoder serial number part 3</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0463</b>	<b>Encoder serial number part 4</b>		
ENC, ENC_840	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0463[0...2]</b>	<b>Encoder serial number part 4</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0464</b>	<b>Encoder serial number part 5</b>		
ENC, ENC_840	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0464[0...2]</b>	<b>Encoder serial number part 5</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0465[0...27]</b>	<b>Encoder 1 identification number/serial number</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned8 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

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<b>r0466[0...27]</b>	<b>Encoder 2 identification number/serial number</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r0467[0...27]</b>	<b>Encoder 3 identification number/serial number</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r0469</b>	<b>Absolute encoder linear measuring step</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [nm]	<b>Max</b> - [nm]	<b>Factory setting</b> - [nm]

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<b>r0469[0...2]</b>	<b>Absolute encoder linear measuring step</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [nm]	<b>Max</b> - [nm]	<b>Factory setting</b> - [nm]

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<b>r0470</b>	<b>Redundant coarse value valid bits</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r0470[0...2]</b>	<b>Redundant coarse value valid bits</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r0471</b>	<b>Redundant coarse value fine resolution bits</b>		
ENC, ENC_840	Can be changed: -	Calculated: -	Access level: 3
	Data type: Integer16	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0471[0...2]</b>	<b>Redundant coarse value fine resolution bits</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: -	Calculated: -	Access level: 3
	Data type: Integer16	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0472</b>	<b>Redundant coarse position value relevant bits</b>		
ENC, ENC_840	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0472[0...2]</b>	<b>Redundant coarse position value relevant bits</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0473</b>	<b>Non safety-relevant measuring steps position value pos1</b>		
ENC, ENC_840	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0473[0...2]</b>	<b>Non safety-relevant measuring steps position value pos1</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

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<b>r0474</b>	<b>Redundant coarse position value configuration</b>		
ENC, ENC_840	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r0474[0...2]</b>	<b>Redundant coarse position value configuration</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r0475</b>	<b>Gx_XIST1 coarse position safe most significant bit</b>		
ENC, ENC_840	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r0475[0...2]</b>	<b>Gx_XIST1 coarse position safe most significant bit</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r0477</b>	<b>CO: Measuring gear, position difference</b>		
ENC, ENC_840	Can be changed: -	Calculated: -	Access level: 1
	Data type: Integer32	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r0477[0...2]</b>	<b>CO: Measuring gear, position difference</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: -	Calculated: -	Access level: 1
	Data type: Integer32	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r0479</b>	<b>CO: Diagnostics encoder position actual value Gn_XIST1</b>		
ENC, ENC_840	Can be changed: -	Calculated: -	Access level: 3
	Data type: Integer32	Dynamic index: -	Func. diagram: 4704
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0479[0...2]</b>	<b>CO: Diagnostics encoder position actual value Gn_XIST1</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: -	Calculated: -	Access level: 3
	Data type: Integer32	Dynamic index: -	Func. diagram: 4704
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0479</b>	<b>CO: TM41 encoder emulation diagnostics Gn_XIST1</b>		
TM41	Can be changed: -	Calculated: -	Access level: 3
	Data type: Integer32	Dynamic index: -	Func. diagram: 9674, 9676
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>p0480</b>	<b>CI: Encoder control word Gn_STW signal source</b>		
ENC, ENC_840	Can be changed: T	Calculated: -	Access level: 3
	Data type: Unsigned32 / Integer16	Dynamic index: -	Func. diagram: 1580, 4720, 4750
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	0

<b>p0480[0...2]</b>	<b>CI: Encoder control word Gn_STW signal source</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: T	Calculated: -	Access level: 3
	Data type: Unsigned32 / Integer16	Dynamic index: -	Func. diagram: 1580, 4720, 4750
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	0



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<b>r0481</b>	<b>CO: Encoder status word Gn_ZSW</b>		
ENC, ENC_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 4704, 4730, 4750
	<b>P-Group:</b> Encoder	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r0481[0...2]</b>	<b>CO: Encoder status word Gn_ZSW</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 4010, 4704, 4730, 4750
	<b>P-Group:</b> Encoder	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r0481</b>	<b>CO: TM41 encoder emulation status word Gn_ZSW</b>		
TM41	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 9676
	<b>P-Group:</b> Encoder	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r0482</b>	<b>CO: Encoder actual position value Gn_XIST1</b>		
ENC, ENC_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 4704, 4735, 4740, 4750
	<b>P-Group:</b> Encoder	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r0482[0...2]</b>	<b>CO: Encoder actual position value Gn_XIST1</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1580, 1680, 4704, 4735, 4740, 4750
	<b>P-Group:</b> Encoder	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r0482</b>	<b>CO: TM41 encoder emulation position actual value Gn_XIST1</b>		
TM41	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0483</b>	<b>CO: Encoder actual position value Gn_XIST2</b>		
ENC, ENC_840	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: 4704, 4750
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0483[0...2]</b>	<b>CO: Encoder actual position value Gn_XIST2</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: 1580, 1680, 4704, 4750
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0483</b>	<b>CO: TM41 encoder emulation position actual value Gn_XIST2</b>		
TM41	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0484</b>	<b>CO: Redundant coarse encoder position + CRC</b>		
ENC, ENC_840	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0484[0...2]</b>	<b>CO: Redundant coarse encoder position + CRC</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r0485</b>	<b>CO: Measuring gear, encoder raw value incremental</b>		
ENC, ENC_840	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0485[0...2]</b>	<b>CO: Measuring gear, encoder raw value incremental</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0486</b>	<b>CO: Measuring gear, encoder raw value absolute</b>		
ENC, ENC_840	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0486[0...2]</b>	<b>CO: Measuring gear, encoder raw value absolute</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0487</b>	<b>Diagnostic encoder control word Gn_STW</b>		
ENC, ENC_840	Can be changed: - Data type: Unsigned16 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 1580, 4704, 4720, 4740 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0487[0...2]</b>	<b>Diagnostic encoder control word Gn_STW</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1580, 4704, 4720, 4740 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>p0488</b>	<b>Measuring probe 1 input terminal</b>		
ENC, ENC_840	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 8	<b>Access level:</b> 3 <b>Func. diagram:</b> 4740 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>p0488[0...2]</b>	<b>Measuring probe 1 input terminal</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 8	<b>Access level:</b> 3 <b>Func. diagram:</b> 4740 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>p0488[0...2]</b>	<b>Measuring probe 1 input terminal</b>		
SERVO (Dig IO), SERVO_840 (Dig IO)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 51	<b>Access level:</b> 3 <b>Func. diagram:</b> 4740 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>p0489</b>	<b>Measuring probe 2 input terminal</b>		
ENC, ENC_840	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 8	<b>Access level:</b> 3 <b>Func. diagram:</b> 4740 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>p0489[0...2]</b>	<b>Measuring probe 2 input terminal</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 8	<b>Access level:</b> 3 <b>Func. diagram:</b> 4740 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

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<b>p0489[0...2]</b>	<b>Measuring probe 2 input terminal</b>		
SERVO (Dig IO), SERVO_840 (Dig IO)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4740 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 51	<b>Factory setting</b> 0

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<b>p0490</b>	<b>Invert measuring probe or equivalent zero mark</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4740 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 bin

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<b>p0491</b>	<b>Motor encoder fault response ENCODER</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 5	<b>Factory setting</b> 0

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<b>p0491</b>	<b>Motor encoder fault response ENCODER</b>		
TM41	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 5	<b>Factory setting</b> 0

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<b>p0491</b>	<b>Motor encoder fault response ENCODER</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 5	<b>Factory setting</b> 0

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<b>p0492</b>	<b>Square-wave encoder, maximum speed difference per sampling cycle</b>		
ENC, ENC_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 0.00 [rpm]

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<b>p0492</b>	<b>Square-wave encoder, max. velocity difference per sampling cycle</b>		
ENC (Lin_enc), ENC_840 (Lin_enc)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 1000.00 [m/min]	<b>Factory setting</b> 0.00 [m/min]

<b>p0492</b>	<b>Square-wave encoder, maximum speed difference per sampling cycle</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 0.00 [rpm]

<b>p0492</b>	<b>Square-wave encoder, max. velocity difference per sampling cycle</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 1000.00 [m/min]	<b>Factory setting</b> 0.00 [m/min]

<b>p0492</b>	<b>Maximum speed difference per sampling cycle</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 0.00 [rpm]

<b>p0493</b>	<b>Zero mark selection, input terminal</b>		
ENC, ENC_840	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 8	<b>Factory setting</b> 0

<b>p0493[0...n]</b>	<b>Zero mark selection, input terminal</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 8	<b>Factory setting</b> 0

<b>p0493[0...n]</b>	<b>Zero mark selection, input terminal</b>		
SERVO (Dig IO), SERVO_840 (Dig IO)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0
	<b>Min</b> 0	<b>Max</b> 51	
<b>p0494[0...n]</b>	<b>Equivalent zero mark, input terminal</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0
	<b>Min</b> 0	<b>Max</b> 8	
<b>p0494[0...n]</b>	<b>Equivalent zero mark, input terminal</b>		
SERVO (Dig IO), SERVO_840 (Dig IO)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0
	<b>Min</b> 0	<b>Max</b> 51	
<b>p0495</b>	<b>Equivalent zero mark, input terminal</b>		
ENC, ENC_840	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4735 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0
	<b>Min</b> 0	<b>Max</b> 8	
<b>p0495[0...2]</b>	<b>Equivalent zero mark, input terminal</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4735 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0
	<b>Min</b> 0	<b>Max</b> 8	
<b>p0495[0...2]</b>	<b>Equivalent zero mark, input terminal</b>		
SERVO (Dig IO), SERVO_840 (Dig IO)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4735 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0
	<b>Min</b> 0	<b>Max</b> 51	

<b>p0496</b>	<b>Encoder diagnostic signal selection</b>		
ENC, ENC_840	Can be changed: U, T	Calculated: -	Access level: 4
	Data type: Integer16	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min 0	Max 86	Factory setting 0

<b>p0496[0...2]</b>	<b>Encoder diagnostic signal selection</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: U, T	Calculated: -	Access level: 4
	Data type: Integer16	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min 0	Max 86	Factory setting 0

<b>r0497</b>	<b>Encoder diagnostic signal double word</b>		
ENC, ENC_840	Can be changed: -	Calculated: -	Access level: 4
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min -	Max -	Factory setting -

<b>r0497[0...2]</b>	<b>CO: Encoder diagnostic signal double word</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: -	Calculated: -	Access level: 4
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min -	Max -	Factory setting -

<b>r0498</b>	<b>Encoder diagnostic signal low word</b>		
ENC, ENC_840	Can be changed: -	Calculated: -	Access level: 4
	Data type: Integer16	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min -	Max -	Factory setting -

<b>r0498[0...2]</b>	<b>CO: Encoder diagnostic signal low word</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: -	Calculated: -	Access level: 4
	Data type: Integer16	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min -	Max -	Factory setting -



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<b>r0499</b>	<b>Encoder diagnostic signal high word</b>		
ENC, ENC_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Encoder	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r0499[0...2]</b>	<b>CO: Encoder diagnostic signal high word</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Encoder	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>p0500</b>	<b>Technology application</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1, 5), T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Applications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	100	102	100

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<b>p0500</b>	<b>Technology application</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 5), T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Applications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	2	1

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<b>p0505</b>	<b>Selecting the system of units</b>		
A_INF, B_INF, ENC, ENC_840, S_INF, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(5)	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Applications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	1	4	1

<b>p0528</b>	<b>Controller gain, system of units</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, TM41	Can be changed: C2(5) Data type: Integer16 P-Group: Applications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 1	Factory setting 0

<b>p0528</b>	<b>Controller gain, system of units</b>		
VECTOR, VECTOR_AC	Can be changed: C2(5) Data type: Integer16 P-Group: Applications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 1	Factory setting 1

<b>p0530[0...n]</b>	<b>Bearing version selection</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(1, 3) Data type: Unsigned16 P-Group: Motor Not for motor type: FEM	Calculated: - Dynamic index: MDS, p0130 Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 104	Factory setting 0

<b>p0531[0...n]</b>	<b>Bearing code number selection</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(3) Data type: Unsigned16 P-Group: Motor Not for motor type: FEM	Calculated: - Dynamic index: MDS, p0130 Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 65535	Factory setting 0

<b>p0532[0...n]</b>	<b>Bearing maximum speed</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: C2(1, 3) Data type: FloatingPoint32 P-Group: Motor Not for motor type: FEM	Calculated: - Dynamic index: MDS, p0130 Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	Min 0.0 [rpm]	Max 210000.0 [rpm]	Factory setting 0.0 [rpm]

<b>p0532[0...n]</b>	<b>Bearing maximum velocity</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	Can be changed: C2(1, 3) Data type: FloatingPoint32 P-Group: Motor Not for motor type: FEM	Calculated: - Dynamic index: MDS, p0130 Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	Min 0.0 [m/min]	Max 1000.0 [m/min]	Factory setting 0.0 [m/min]

<b>p0532[0...n]</b>	<b>Bearing maximum speed</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [rpm]	<b>Max</b> 210000.0 [rpm]	<b>Factory setting</b> 0.0 [rpm]
<b>r0565[0...15]</b>	<b>CO: Probe time stamp</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r0566[0...3]</b>	<b>CO: Probe time stamp reference</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r0567</b>	<b>CO: Probe diagnostics word</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p0570</b>	<b>Inhibit list values effective number</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> Applications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 50	<b>Factory setting</b> 0

<b>p0571[0...49]</b>	<b>Inhibit list, motor/closed-loop control parameter calculation</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Applications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2142	<b>Factory setting</b> 0

<b>p0571[0...49]</b>	<b>Inhibit list, motor/closed-loop control parameter calculation</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Applications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2142	<b>Factory setting</b> 0

<b>p0572[0...n]</b>	<b>Activate/de-activate inhibit list</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Applications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p0573</b>	<b>Inhibit automatic reference value calculation</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Applications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p0578[0...n]</b>	<b>Calculate technology-dependent parameters</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(5), T <b>Data type:</b> Integer16 <b>P-Group:</b> Applications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p0580</b>	<b>Measuring probe, input terminal</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 8	<b>Factory setting</b> 0
<b>p0581</b>	<b>Measuring probe, edge</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>p0582</b>	<b>Measuring probe, pulses per revolution</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 12	<b>Factory setting</b> 1
<b>p0583</b>	<b>Measuring probe, maximum measuring time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.040 [s]	<b>Max</b> 10.000 [s]	<b>Factory setting</b> 10.000 [s]
<b>r0586</b>	<b>CO: Measuring probe, speed actual value</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]
<b>r0586</b>	<b>CO: Measuring probe, velocity actual value</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]

<b>r0587</b>	<b>CO: Measuring probe, measuring time measured</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r0588</b>	<b>CO: Measuring probe, pulse counter</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r0589</b>	<b>Measuring probe, delay time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p0595</b>	<b>Technological unit selection</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> C2(5) <b>Data type:</b> Integer16 <b>P-Group:</b> Applications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 32	<b>Factory setting</b> 1

<b>p0596</b>	<b>Technological unit reference quantity</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.01	<b>Max</b> 340.28235E36	<b>Factory setting</b> 1.00

<b>p0600[0...n]</b>	<b>Motor temperature sensor for monitoring</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 21	<b>Factory setting</b> 1
<b>p0600[0...n]</b>	<b>Motor temperature sensor for monitoring</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 21	<b>Factory setting</b> 0
<b>p0601</b>	<b>Temperature sensor, sensor type</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 4	<b>Factory setting</b> 0
<b>p0601[0...n]</b>	<b>Motor temperature sensor type</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 11	<b>Factory setting</b> 2
<b>p0602</b>	<b>Par_circuit power unit number, temperature sensor</b>		
VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 10	<b>Factory setting</b> 0
<b>p0603</b>	<b>CI: Motor temperature signal source</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2006	<b>Access level:</b> 2 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p0604[0...n]</b>	<b>Mot_temp_mod 1/KTY alarm threshold</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3), U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> 8016
	<b>P-Group:</b> Motor	<b>Units group:</b> 21_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [°C]	<b>Max</b> 200.0 [°C]	<b>Factory setting</b> 120.0 [°C]

<b>p0604[0...n]</b>	<b>Mot_temp_mod 1/KTY alarm threshold</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> 8016
	<b>P-Group:</b> Motor	<b>Units group:</b> 21_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [°C]	<b>Max</b> 200.0 [°C]	<b>Factory setting</b> 130.0 [°C]

<b>p0605[0...n]</b>	<b>Mot_temp_mod 1/2 threshold</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> 8016, 8017
	<b>P-Group:</b> Motor	<b>Units group:</b> 21_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [°C]	<b>Max</b> 200.0 [°C]	<b>Factory setting</b> 145.0 [°C]

<b>p0606[0...n]</b>	<b>Mot_temp_mod 2/KTY timer</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3), U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> 8016
	<b>P-Group:</b> Motor	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 600.000 [s]	<b>Factory setting</b> 240.000 [s]

<b>p0606[0...n]</b>	<b>Mot_temp_mod 2/KTY timer</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> 8016
	<b>P-Group:</b> Motor	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 600.000 [s]	<b>Factory setting</b> 0.000 [s]

<b>p0607[0...n]</b>	<b>Temperature sensor fault timer</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 600.000 [s]	<b>Factory setting</b> 0.100 [s]



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<b>p0608[0...3]</b>	<b>CI: Motor temperature signal source 2</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2006	<b>Access level:</b> 2 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p0609[0...3]</b>	<b>CI: Motor temperature signal source 3</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2006	<b>Access level:</b> 2 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p0610[0...n]</b>	<b>Motor overtemperature response</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 2

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<b>p0611[0...n]</b>	<b>I2t motor model thermal time constant</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8017 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [s]	<b>Max</b> 20000 [s]	<b>Factory setting</b> 0 [s]

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<b>p0612[0...n]</b>	<b>Mot_temp_mod activation</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8017 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0010 bin

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<b>p0612[0...n]</b>	<b>Mot_temp_mod activation</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8017 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0010 bin

<b>p0615[0...n]</b>	<b>Mot_temp_mod 1 (I2t) fault threshold</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 21_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8017 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 180.0 [°C]
	<b>Min</b> 0.0 [°C]	<b>Max</b> 220.0 [°C]	

<b>p0616[0...n]</b>	<b>Motor overtemperature alarm threshold 1</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 21_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 195.0 [°C]
	<b>Min</b> 0.0 [°C]	<b>Max</b> 200.0 [°C]	

<b>p0616[0...n]</b>	<b>Motor overtemperature alarm threshold 1</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 21_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 130.0 [°C]
	<b>Min</b> 0.0 [°C]	<b>Max</b> 200.0 [°C]	

<b>p0617[0...n]</b>	<b>Stator thermally relevant iron component</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 40.0 [%]
	<b>Min</b> 0.0 [%]	<b>Max</b> 100.0 [%]	

<b>p0618[0...n]</b>	<b>Stator thermally relevant copper component</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 15.0 [%]
	<b>Min</b> 0.0 [%]	<b>Max</b> 100.0 [%]	

<b>p0619[0...n]</b>	<b>Rotor thermally relevant weight</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 20.0 [%]
	<b>Min</b> 0.0 [%]	<b>Max</b> 100.0 [%]	

<b>p0620[0...n]</b>	<b>Thermal adaptation, stator and rotor resistance</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 2
<b>p0620[0...n]</b>	<b>Thermal adaptation, stator and rotor resistance</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 1
<b>p0621[0...n]</b>	<b>Identification stator resistance after restart</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> C2(3), T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 0
<b>p0622[0...n]</b>	<b>Motor excitation time for Rs_ident after powering up again</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 20.000 [s]	<b>Factory setting</b> 0.000 [s]
<b>r0623</b>	<b>Stator resistance of Rs identification after powering up again</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [ohm]	<b>Max</b> - [ohm]	<b>Factory setting</b> - [ohm]
<b>p0624[0...n]</b>	<b>Motor temperature offset PT100</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 21_2 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -100.0 [K]	<b>Max</b> 100.0 [K]	<b>Factory setting</b> 0.0 [K]

<b>p0625[0...n]</b>	<b>Motor ambient temperature</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 21_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -40 [°C]	<b>Max</b> 80 [°C]	<b>Factory setting</b> 20 [°C]

<b>p0626[0...n]</b>	<b>Motor overtemperature, stator core</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 21_2 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 20 [K]	<b>Max</b> 200 [K]	<b>Factory setting</b> 50 [K]

<b>p0627[0...n]</b>	<b>Motor overtemperature, stator winding</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 21_2 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 20 [K]	<b>Max</b> 200 [K]	<b>Factory setting</b> 80 [K]

<b>p0628[0...n]</b>	<b>Motor overtemperature rotor winding</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 21_2 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 20 [K]	<b>Max</b> 200 [K]	<b>Factory setting</b> 100 [K]

<b>r0630[0...n]</b>	<b>Mot_temp_mod ambient temperature</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 4 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

<b>r0631[0...n]</b>	<b>Mot_temp_mod stator iron temperature</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 4 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

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<b>r0632[0...n]</b>	<b>Mot_temp_mod stator winding temperature</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 4 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

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<b>r0633[0...n]</b>	<b>Mot_temp_mod rotor temperature</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 4 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

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<b>p0634[0...n]</b>	<b>Q flux flux constant unsaturated</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [Vs rms]	<b>Max</b> 100.000 [Vs rms]	<b>Factory setting</b> 0.000 [Vs rms]

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<b>p0635[0...n]</b>	<b>Q flux quadrature axis current constant unsaturated</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Arms]	<b>Max</b> 10000.00 [Arms]	<b>Factory setting</b> 0.00 [Arms]

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<b>p0636[0...n]</b>	<b>Q flux direct axis current constant unsaturated</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Arms]	<b>Max</b> 10000.00 [Arms]	<b>Factory setting</b> 0.00 [Arms]

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<b>p0637[0...n]</b>	<b>Q flux flux gradient saturated</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [mH]	<b>Max</b> 10000.00 [mH]	<b>Factory setting</b> 0.00 [mH]

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<b>p0640[0...n]</b>	<b>Current limit</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -  <b>Min</b> 0.00 [Arms]	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 10000.00 [Arms]	<b>Access level:</b> 2 <b>Func. diagram:</b> 5722, 6640 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [Arms]
<b>p0641[0...n]</b>	<b>CI: Current limit, variable</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6640 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 1
<b>p0642[0...n]</b>	<b>Encoderless operation current reduction</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1, 3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -  <b>Min</b> 0.00 [%]	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 100.00 [%]	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 100.00 [%]
<b>p0643[0...n]</b>	<b>Overvoltage protection for synchronous motors</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 1	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0
<b>p0643[0...n]</b>	<b>Overvoltage protection for synchronous motors</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> C2(3) <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 1	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0
<b>p0645[0...n]</b>	<b>Motor kT characteristic kT1</b>		
SERVO (Ext M_ctrl, Lin), SERVO_840 (Ext M_ctrl, Lin), SERVO_AC (Ext M_ctrl, Lin)	<b>Can be changed:</b> C2(1, 3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM  <b>Min</b> 0.00 [N/Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 200.00 [N/Arms]	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [N/Arms]

<b>p0645[0...n]</b>	<b>Motor kT characteristic kT1</b>		
SERVO (Ext M_ctrl), SERVO_840 (Ext M_ctrl), SERVO_AC (Ext M_ctrl)	<b>Can be changed:</b> C2(1, 3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [Nm/A]
	<b>Min</b> 0.00 [Nm/A]	<b>Max</b> 200.00 [Nm/A]	
<b>p0646[0...n]</b>	<b>Motor kT characteristic kT3</b>		
SERVO (Ext M_ctrl), SERVO_840 (Ext M_ctrl), SERVO_AC (Ext M_ctrl)	<b>Can be changed:</b> C2(1, 3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> -
	<b>Min</b> -	<b>Max</b> -	
<b>p0647[0...n]</b>	<b>Motor kT characteristic kT5</b>		
SERVO (Ext M_ctrl), SERVO_840 (Ext M_ctrl), SERVO_AC (Ext M_ctrl)	<b>Can be changed:</b> C2(1, 3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> -
	<b>Min</b> -	<b>Max</b> -	
<b>p0648[0...n]</b>	<b>Motor kT characteristic kT7</b>		
SERVO (Ext M_ctrl), SERVO_840 (Ext M_ctrl), SERVO_AC (Ext M_ctrl)	<b>Can be changed:</b> C2(1, 3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> -
	<b>Min</b> -	<b>Max</b> -	
<b>p0650[0...n]</b>	<b>Actual motor operating hours</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0 [h]
	<b>Min</b> 0 [h]	<b>Max</b> 4294967295 [h]	
<b>p0651[0...n]</b>	<b>Motor operating hours maintenance interval</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0 [h]
	<b>Min</b> 0 [h]	<b>Max</b> 150000 [h]	

<b>p0652[0...n]</b>	<b>Motor stator resistance, scaling</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 100.0 [%]
	<b>Min</b> 10.0 [%]	<b>Max</b> 300.0 [%]	
<b>p0653[0...n]</b>	<b>Motor stator leakage inductance, scaling</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 100.0 [%]
	<b>Min</b> 10.0 [%]	<b>Max</b> 300.0 [%]	
<b>p0655[0...n]</b>	<b>Motor magnetizing inductance, d axis saturated scaling</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 100.0 [%]
	<b>Min</b> 10.0 [%]	<b>Max</b> 300.0 [%]	
<b>p0656[0...n]</b>	<b>Motor magnetizing inductance, q axis, saturated scaling</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 100.0 [%]
	<b>Min</b> 10.0 [%]	<b>Max</b> 300.0 [%]	
<b>p0657[0...n]</b>	<b>Motor damping inductance, d axis scaling</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 100.0 [%]
	<b>Min</b> 10.0 [%]	<b>Max</b> 300.0 [%]	
<b>p0658[0...n]</b>	<b>Motor damping inductance, q axis scaling</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 100.0 [%]
	<b>Min</b> 10.0 [%]	<b>Max</b> 300.0 [%]	



<b>p0659[0...n]</b>	<b>Motor damping resistance, d axis scaling</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 100.0 [%]
	<b>Min</b> 10.0 [%]	<b>Max</b> 300.0 [%]	
<b>p0660[0...n]</b>	<b>Motor damping resistance, q axis scaling</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 100.0 [%]
	<b>Min</b> 10.0 [%]	<b>Max</b> 300.0 [%]	
<b>p0680[0...7]</b>	<b>Central measuring probe, input terminal</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 8	
<b>p0681</b>	<b>BI: Central measuring probe, synchronizing signal signal source</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> -	<b>Max</b> -	
<b>p0682</b>	<b>CI: Central measuring probe, control word signal source</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> -	<b>Max</b> -	

<b>p0684</b>	<b>Central measuring probe evaluation technique</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 16	<b>Factory setting</b> 0

<b>r0685</b>	<b>Central measuring probe, control word display</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r0686[0...7]</b>	<b>CO: Central measuring probe, measuring time rising edge</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r0687[0...7]</b>	<b>CO: Central measuring probe, measuring time falling edge</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r0688</b>	<b>CO: Central measuring probe, status word display</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p0700[0...n]</b>	<b>Macro Binector Input (BI)</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 999999	<b>Factory setting</b> 0

<b>p0700</b>	<b>Macro Binector Input (BI) for TMs</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, TB30, TM15DI_DO, TM31	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 999999	<b>Factory setting</b> 0

<b>p0713[0...7]</b>	<b>BI: Cam function setpoint state</b>		
CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p0714[0...7]</b>	<b>CI: Cam function setting time</b>		
CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p0715[0...7]</b>	<b>CI: Cam function reset time</b>		
CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>r0716.0...7</b>	<b>CO/BO: Cam function output</b>		
CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned32 P-Group: Terminals Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r0721</b>	<b>CU digital inputs, terminal actual value</b>		
CU_I_840, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned32  P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: -  Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 1510, 2020, 2030, 2031, 2100, 2120, 2130, 2131, 2132, 2133 Unit selection: - Expert list: 1  Factory setting -

<b>r0721</b>	<b>CX digital inputs, terminal actual value</b>		
CU_NX_840	Can be changed: - Data type: Unsigned32  P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: -  Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 2220, 2230, 2231 Unit selection: - Expert list: 1  Factory setting -

<b>r0721</b>	<b>CU digital inputs, terminal actual value</b>		
CU_S_AC_DP, CU_S_AC_PN	Can be changed: - Data type: Unsigned32  P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: -  Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 1510, 2020, 2030, 2031, 2100, 2120, 2130, 2131, 2132, 2133 Unit selection: - Expert list: 1  Factory setting -

<b>r0722.0...21</b>	<b>CO/BO: CU digital inputs, status</b>		
CU_I_840, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned32  P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: -  Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 1510, 2020, 2030, 2031, 2100, 2120, 2130, 2131, 2132, 2133 Unit selection: - Expert list: 1  Factory setting -

<b>r0722.0...17</b>	<b>CO/BO: CX digital inputs, status</b>		
CU_NX_840	Can be changed: - Data type: Unsigned32	Calculated: - Dynamic index: -	Access level: 1 Func. diagram: 2220, 2230, 2231
	P-Group: Commands Not for motor type: -	Units group: - Scaling: -	Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0722.0...22</b>	<b>CO/BO: CU digital inputs, status</b>		
CU_S_AC_DP, CU_S_AC_PN	Can be changed: - Data type: Unsigned32	Calculated: - Dynamic index: -	Access level: 1 Func. diagram: 1510, 2020, 2030, 2031, 2100, 2120, 2130, 2131, 2132, 2133
	P-Group: Commands Not for motor type: -	Units group: - Scaling: -	Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0723.0...21</b>	<b>CO/BO: CU digital inputs, status inverted</b>		
CU_I_840, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned32	Calculated: - Dynamic index: -	Access level: 1 Func. diagram: 1510, 2020, 2030, 2031, 2100, 2120, 2130, 2131, 2132, 2133
	P-Group: Commands Not for motor type: -	Units group: - Scaling: -	Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0723.0...17</b>	<b>CO/BO: CX digital inputs, status inverted</b>		
CU_NX_840	Can be changed: - Data type: Unsigned32	Calculated: - Dynamic index: -	Access level: 1 Func. diagram: 1512, 2220, 2230, 2231
	P-Group: Commands Not for motor type: -	Units group: - Scaling: -	Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0723.0...22</b>	<b>CO/BO: CU digital inputs, status inverted</b>		
CU_S_AC_DP, CU_S_AC_PN	Can be changed: - Data type: Unsigned32	Calculated: - Dynamic index: -	Access level: 1 Func. diagram: 1510, 2020, 2030, 2031, 2100, 2120, 2130, 2131, 2132, 2133
	P-Group: Commands Not for motor type: -	Units group: - Scaling: -	Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>p0728</b>	<b>CU, set input or output</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32  <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 1510, 2030, 2031, 2130, 2131, 2132, 2133 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0000 0000 0000 0000 bin

<b>p0728</b>	<b>CX set input or output</b>		
CU_NX_840	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32  <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 1512, 2230, 2231 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0000 0000 0000 0000 bin

<b>r0729</b>	<b>CU digital outputs access authority</b>		
CU_I_840, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32  <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 2030, 2031, 2130, 2131, 2132, 2133 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>r0729</b>	<b>CX digital outputs access authority</b>		
CU_NX_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32  <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 2030, 2031, 2130, 2131, 2132, 2133 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>r0729</b>	<b>CU digital outputs access authority</b>		
CU_S_AC_DP, CU_S_AC_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32  <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 2030, 2031, 2130, 2131, 2132, 2133 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

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<b>p0738</b>	<b>BI: CU, signal source for terminal DI/DO 8</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 1510, 2030, 2130 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

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<b>p0738</b>	<b>BI: CX signal source for terminal DI/DO 8</b>		
CU_NX_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 2230 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

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<b>p0739</b>	<b>BI: CU, signal source for terminal DI/DO 9</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 2030, 2130 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

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<b>p0739</b>	<b>BI: CX signal source for terminal DI/DO 9</b>		
CU_NX_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 2230 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

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<b>p0740</b>	<b>BI: CU, signal source for terminal DI/DO 10</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 2031, 2131 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

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<b>p0740</b>	<b>BI: CX signal source for terminal DI/DO 10</b>		
CU_NX_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 2231 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

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<b>p0741</b>	<b>BI: CU, signal source for terminal DI/DO 11</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 1510, 2031, 2131 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>p0741</b>	<b>BI: CX signal source for terminal DI/DO 11</b>		
CU_NX_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 2231 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>p0742</b>	<b>BI: CU, signal source for terminal DI/DO 12</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 1510, 2132 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>p0743</b>	<b>BI: CU, signal source for terminal DI/DO 13</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 2132 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>p0744</b>	<b>BI: CU, signal source for terminal DI/DO 14</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 2133 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>p0745</b>	<b>BI: CU, signal source for terminal DI/DO 15</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 1510, 2133 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0



<b>p0746</b>	<b>BI: CU signal source for terminal DO 16</b>		
CU_S_AC_DP, CU_S_AC_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 1510, 2030, 2130
	<b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>r0747</b>	<b>CU, digital outputs status</b>		
CU_I_840, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 2130, 2131, 2132, 2133
	<b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r0747</b>	<b>CX digital outputs, status</b>		
CU_NX_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> -
	<b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r0747</b>	<b>CU, digital outputs status</b>		
CU_S_AC_DP, CU_S_AC_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 2130, 2131, 2132, 2133
	<b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p0748</b>	<b>CU, invert digital outputs</b>		
CU_I_840, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 2030, 2031, 2130, 2131, 2132, 2133
	<b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 bin

<b>p0748</b>	<b>CX invert digital outputs</b>		
CU_NX_840	Can be changed: U, T Data type: Unsigned32 P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: 2230, 2231 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0000 0000 0000 0000 bin

<b>p0748</b>	<b>CU, invert digital outputs</b>		
CU_S_AC_DP, CU_S_AC_PN	Can be changed: U, T Data type: Unsigned32 P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: 2030, 2031, 2130, 2131, 2132, 2133 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0000 0000 0000 0000 0000 0000 0000 0000 bin

<b>r0752[0]</b>	<b>CO: CU analog input input voltage/current actual</b>		
CU_S_AC_DP, CU_S_AC_PN	Can be changed: - Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: 9566 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>p0753[0]</b>	<b>CU analog input smoothing time constant</b>		
CU_S_AC_DP, CU_S_AC_PN	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	Min 0.0 [ms]	Max 1000.0 [ms]	Factory setting 0.0 [ms]

<b>r0755[0]</b>	<b>CO: CU analog input actual value in percent</b>		
CU_S_AC_DP, CU_S_AC_PN	Can be changed: - Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: PERCENT	Access level: 1 Func. diagram: 1840, 9566 Unit selection: - Expert list: 1
	Min - [%]	Max - [%]	Factory setting - [%]

<b>p0756[0]</b>	<b>CU analog input type</b>		
CU_S_AC_DP, CU_S_AC_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 2040 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 5	<b>Factory setting</b> 4
<b>p0757[0]</b>	<b>CU analog input characteristic value x1</b>		
CU_S_AC_DP, CU_S_AC_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 9566 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -20.000	<b>Max</b> 20.000	<b>Factory setting</b> 0.000
<b>p0758[0]</b>	<b>CU analog input characteristic value y1</b>		
CU_S_AC_DP, CU_S_AC_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 9566 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -1000.00 [%]	<b>Max</b> 1000.00 [%]	<b>Factory setting</b> 0.00 [%]
<b>p0759[0]</b>	<b>CU analog input characteristic value x2</b>		
CU_S_AC_DP, CU_S_AC_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 9566 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -20.000	<b>Max</b> 20.000	<b>Factory setting</b> 10.000
<b>p0760[0]</b>	<b>CU analog input characteristic value y2</b>		
CU_S_AC_DP, CU_S_AC_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -1000.00 [%]	<b>Max</b> 1000.00 [%]	<b>Factory setting</b> 100.00 [%]
<b>p0761[0]</b>	<b>CU analog input wire breakage monitoring response threshold</b>		
CU_S_AC_DP, CU_S_AC_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 9566 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [mA]	<b>Max</b> 20.00 [mA]	<b>Factory setting</b> 2.00 [mA]

<b>p0762[0]</b>	<b>CU analog input wire breakage monitoring delay time</b>		
CU_S_AC_DP, CU_S_AC_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 9566 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 1000 [ms]	<b>Factory setting</b> 100 [ms]

<b>p0763[0]</b>	<b>CU analog input offset</b>		
CU_S_AC_DP, CU_S_AC_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 9566 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -20.000	<b>Max</b> 20.000	<b>Factory setting</b> 0.000

<b>p0766[0]</b>	<b>CU analog input activate absolute value generation</b>		
CU_S_AC_DP, CU_S_AC_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9566 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p0767[0]</b>	<b>BI: CU analog input signal source for inversion</b>		
CU_S_AC_DP, CU_S_AC_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9566 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p0768[0]</b>	<b>CU analog input window to suppress noise</b>		
CU_S_AC_DP, CU_S_AC_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9566 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 20.00 [%]	<b>Factory setting</b> 0.00 [%]

<b>p0769[0]</b>	<b>BI: CU analog input enable signal source</b>		
CU_S_AC_DP, CU_S_AC_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9566 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1

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<b>p0771[0...2]</b>	<b>CI: Test sockets signal source</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 8134 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>r0772[0...2]</b>	<b>Test sockets output signal</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8134 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

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<b>r0774[0...2]</b>	<b>Test sockets output voltage</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

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<b>p0776[0...2]</b>	<b>Test socket mode</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 8134 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 96	<b>Max</b> 99	<b>Factory setting</b> 99

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<b>p0777[0...2]</b>	<b>Test socket characteristic value x1</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8134 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -100000.00 [%]	<b>Max</b> 100000.00 [%]	<b>Factory setting</b> 0.00 [%]

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<b>p0778[0...2]</b>	<b>Test socket characteristic value y1</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8134 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [V]	<b>Max</b> 4.98 [V]	<b>Factory setting</b> 2.49 [V]

<b>p0779[0...2]</b>	<b>Test socket characteristic value x2</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8134 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -100000.00 [%]	<b>Max</b> 427.9E9 [%]	<b>Factory setting</b> 100.00 [%]

<b>p0780[0...2]</b>	<b>Test socket characteristic value y2</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8134 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [V]	<b>Max</b> 4.98 [V]	<b>Factory setting</b> 4.98 [V]

<b>p0783[0...2]</b>	<b>Test sockets offset</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8134 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -4.98 [V]	<b>Max</b> 4.98 [V]	<b>Factory setting</b> 0.00 [V]

<b>p0784[0...2]</b>	<b>Test socket limit on/off</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8134 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>r0786[0...2]</b>	<b>Test socket scaling per volt</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8134 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p0788[0...2]</b>	<b>Test sockets physical address</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 bin	<b>Max</b> 1111 1111 1111 1111 1111 1111 1111 1111 bin	<b>Factory setting</b> 0000 bin
<b>p0789[0...2]</b>	<b>Test sockets physical address gain</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -340.28235E36	<b>Max</b> 340.28235E36	<b>Factory setting</b> 1.00000
<b>r0790[0...2]</b>	<b>Test sockets physical address signal value</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p0795</b>	<b>CU digital inputs simulation mode</b>		
CU_I_840, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32  <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1510, 2020, 2030, 2031, 2100, 2120, 2130, 2131, 2132, 2133 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 0000 0000 0000 0000 bin

<b>p0795</b>	<b>CX digital inputs, simulation mode</b>		
CU_NX_840	Can be changed: U, T Data type: Unsigned32	Calculated: - Dynamic index: -	Access level: 2 Func. diagram: 2220, 2230, 2231
	P-Group: Commands Not for motor type: -	Units group: - Scaling: -	Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0000 0000 0000 0000 0000 0000 0000 0000 bin

<b>p0795</b>	<b>CU digital inputs simulation mode</b>		
CU_S_AC_DP, CU_S_AC_PN	Can be changed: U, T Data type: Unsigned32	Calculated: - Dynamic index: -	Access level: 2 Func. diagram: 1510, 2020, 2030, 2031, 2100, 2120, 2130, 2131, 2132, 2133
	P-Group: Commands Not for motor type: -	Units group: - Scaling: -	Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0000 0000 0000 0000 0000 0000 0000 0000 bin

<b>p0796</b>	<b>CU digital inputs simulation mode setpoint</b>		
CU_I_840, CU_S120_DP, CU_S120_PN	Can be changed: U, T Data type: Unsigned32	Calculated: - Dynamic index: -	Access level: 2 Func. diagram: 1510, 2020, 2030, 2031, 2100, 2120, 2130, 2131, 2132, 2133
	P-Group: Commands Not for motor type: -	Units group: - Scaling: -	Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0000 0000 0000 0000 0000 0000 0000 0000 bin

<b>p0796</b>	<b>CX digital inputs, simulation mode, setpoint</b>		
CU_NX_840	Can be changed: U, T Data type: Unsigned32	Calculated: - Dynamic index: -	Access level: 2 Func. diagram: 2020, 2030, 2031
	P-Group: Commands Not for motor type: -	Units group: - Scaling: -	Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0000 0000 0000 0000 0000 0000 0000 0000 bin



<b>p0796</b>	<b>CU digital inputs simulation mode setpoint</b>		
CU_S_AC_DP, CU_S_AC_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1510, 2020, 2030, 2031, 2100, 2120, 2130, 2131, 2132, 2133
	<b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 0000 0000 0000 0000 bin

<b>p0797[0]</b>	<b>CU analog input simulation mode</b>		
CU_S_AC_DP, CU_S_AC_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 9566
	<b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p0798[0]</b>	<b>CU analog input simulation mode setpoint</b>		
CU_S_AC_DP, CU_S_AC_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> -
	<b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -20.000	<b>Max</b> 20.000	<b>Factory setting</b> 0.000

<b>p0799[0...2]</b>	<b>CU inputs/outputs, sampling time</b>		
CU_I_840	<b>Can be changed:</b> C1(3) <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2020, 2030, 2031
	<b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 5000.00 [µs]	<b>Factory setting</b> 4000.00 [µs]

<b>p0799[0...2]</b>	<b>CX inputs/outputs, sampling time</b>		
CU_NX_840	<b>Can be changed:</b> C1(3) <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2020, 2030, 2031
	<b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 5000.00 [µs]	<b>Factory setting</b> 4000.00 [µs]

<b>p0799[0...2]</b>	<b>CU inputs/outputs, sampling time</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> 0.00 [µs]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 5000.00 [µs]	<b>Access level:</b> 3 <b>Func. diagram:</b> 2020, 2030, 2031 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 4000.00 [µs]

<b>p0806</b>	<b>BI: Inhibit master control</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>r0807.0</b>	<b>BO: Master control active</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>p0809[0...2]</b>	<b>Copy Command Data Set CDS</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned8 <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 15	<b>Access level:</b> 2 <b>Func. diagram:</b> 8560 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>p0810</b>	<b>BI: Command data set selection CDS bit 0</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8560 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>p0811</b>	<b>BI: Command data set selection CDS bit 1</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8560 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p0819[0...2]</b>	<b>Copy Drive Data Set DDS</b>		
SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(15) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8565 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 31	<b>Factory setting</b> 0
<b>p0820[0...n]</b>	<b>BI: Drive Data Set selection DDS bit 0</b>		
SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(15), T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8565, 8575 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p0821[0...n]</b>	<b>BI: Drive Data Set selection DDS bit 1</b>		
SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(15), T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8565 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p0822[0...n]</b>	<b>BI: Drive Data Set selection DDS bit 2</b>		
SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(15), T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8565 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p0823[0...n]</b>	<b>BI: Drive Data Set selection DDS bit 3</b>		
SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(15), T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8565 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p0824[0...n]</b>	<b>BI: Drive Data Set selection DDS bit 4</b>		
SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(15), T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8565, 8575 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p0826[0...n]</b>	<b>Motor changeover, motor number</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8575 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 15	<b>Factory setting</b> 0

<b>p0826[0...n]</b>	<b>Motor changeover, motor number</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8575 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 15	<b>Factory setting</b> 0

<b>p0827[0...n]</b>	<b>Motor changeover status word bit number</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8575 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 15	<b>Factory setting</b> 0

<b>p0828[0...n]</b>	<b>BI: Motor changeover, feedback signal</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8575 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>r0830.0...15</b>	<b>CO/BO: Motor changeover, status word</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8575 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>p0831[0...15]</b>	<b>BI: Motor changeover, contactor feedback</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8575 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>r0832.0...15</b>	<b>CO/BO: Mot. changeover, contactor feedback sig. status word</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8575 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>p0833</b>	<b>Data set changeover configuration</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(15) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8575 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0000 bin

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<b>p0833</b>	<b>Data set changeover configuration</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(15) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Data sets <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8575 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0010 bin

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<b>r0835.2</b>	<b>CO/BO: Data set changeover status word</b>		
ENC, ENC_840, TM41	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8575 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r0835.0...11</b>	<b>CO/BO: Data set changeover status word</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8575 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r0836.0...3</b>	<b>CO/BO: Command Data Set CDS selected</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1530, 8560 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r0837.0...4</b>	<b>CO/BO: Drive Data Set DDS selected</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8565 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r0838[0...3]</b>	<b>Motor/Encoder Data Set selected</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8565 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>p0839</b>	<b>Motor changeover contactor control delay time</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0 [ms]	500 [ms]	0 [ms]

<b>p0840[0...n]</b>	<b>BI: ON / OFF (OFF1)</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2501, 2610, 8720, 8820, 8920 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>p0840</b>	<b>BI: ON / OFF (OFF1)</b>		
TM41	Can be changed: T	Calculated: -	Access level: 3
	Data type: Unsigned32 / Binary	Dynamic index: -	Func. diagram: 9677
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	0
<b>p0844[0...n]</b>	<b>BI: No coast-down / coast-down (OFF2) signal source 1</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: T	Calculated: -	Access level: 3
	Data type: Unsigned32 / Binary	Dynamic index: CDS, p0170	Func. diagram: 2501, 8720, 8820, 8920
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	1
<b>p0844</b>	<b>BI: No coast-down / coast-down (OFF2)</b>		
TM41	Can be changed: T	Calculated: -	Access level: 3
	Data type: Unsigned32 / Binary	Dynamic index: -	Func. diagram: 9677
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	1
<b>p0845[0...n]</b>	<b>BI: No coast-down / coast-down (OFF2) signal source 2</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: T	Calculated: -	Access level: 3
	Data type: Unsigned32 / Binary	Dynamic index: CDS, p0170	Func. diagram: 2501, 8720, 8820, 8920
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	1
<b>p0848[0...n]</b>	<b>BI: No Quick Stop / Quick Stop (OFF3) signal source 1</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: T	Calculated: -	Access level: 3
	Data type: Unsigned32 / Binary	Dynamic index: CDS, p0170	Func. diagram: 2501
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	1

<b>p0848</b>	<b>BI: No Quick Stop / Quick Stop (OFF3)</b>		
TM41	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 9677
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1

<b>p0849[0...n]</b>	<b>BI: No Quick Stop / Quick Stop (OFF3) signal source 2</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 2501
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1

<b>p0852[0...n]</b>	<b>BI: Enable operation/inhibit operation</b>		
A_INF, A_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 2501, 8820, 8920
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1

<b>p0852</b>	<b>BI: Enable operation/inhibit operation</b>		
TM41	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 9677
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1

<b>p0854[0...n]</b>	<b>BI: Control by PLC/no control by PLC</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 2501, 8720, 8820, 8920
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1



<b>p0854</b>	<b>BI: Control by PLC/no control by PLC</b>		
ENC, ENC_840	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2501, 8720, 8820, 8920
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1
<b>p0854</b>	<b>BI: Control by PLC/no control by PLC</b>		
TM41	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 9677, 9678
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1
<b>p0855[0...n]</b>	<b>BI: Unconditionally release holding brake</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 2501, 2701, 2707
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p0856[0...n]</b>	<b>BI: Speed controller enable</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 2501, 2701, 2707
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1
<b>p0856[0...n]</b>	<b>BI: Velocity controller enable</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 2501, 2701, 2707
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1

<b>p0857</b>	<b>Power unit monitoring time</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8760, 8864, 8964 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 6000.0 [ms]
	<b>Min</b> 100.0 [ms]	<b>Max</b> 60000.0 [ms]	

<b>p0857</b>	<b>Power unit monitoring time</b>		
SERVO_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8760, 8864, 8964 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 2000.0 [ms]
	<b>Min</b> 100.0 [ms]	<b>Max</b> 60000.0 [ms]	

<b>p0858[0...n]</b>	<b>BI: Unconditionally close holding brake</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary  <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170  <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2501, 2701, 2707 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 9719.13
	<b>Min</b> -	<b>Max</b> -	

<b>p0858[0...n]</b>	<b>BI: Unconditionally close holding brake</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary  <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170  <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2501, 2701, 2707 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0
	<b>Min</b> -	<b>Max</b> -	

<b>p0860</b>	<b>BI: Line cont. fdbk sig</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary  <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2634, 8734, 8834, 8934 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 863.1
	<b>Min</b> -	<b>Max</b> -	

<b>p0861</b>	<b>Line contactor monitoring time</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2634, 8734, 8834, 8934 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 5000 [ms]	<b>Factory setting</b> 100 [ms]
<b>p0862</b>	<b>Power unit ON delay</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2610, 8732, 8832, 8932 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 65000 [ms]	<b>Factory setting</b> 0 [ms]
<b>r0863.0...2</b>	<b>CO/BO: Drive coupling status word/control word</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p0864</b>	<b>BI: Infeed operation</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1773, 1774, 2610 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p0868</b>	<b>Power unit DC switch debounce time</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 65000 [ms]	<b>Factory setting</b> 65000 [ms]

<b>r0873</b>	<b>CO/BO: Infeed, total operation</b>		
B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8732, 8832 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>p0874</b>	<b>BI: Smart/ Basic Line Module operation</b>		
B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8732, 8832 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>r0887.0...13</b>	<b>BO: ESR status word</b>		
SERVO (ESR), SERVO_840 (ESR), SERVO_AC (ESR)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>p0888</b>	<b>ESR configuration</b>		
SERVO (ESR), SERVO_840 (ESR), SERVO_AC (ESR)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 3	<b>Access level:</b> 2 <b>Func. diagram:</b> 3082 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>p0889</b>	<b>BI: ESR response enable</b>		
SERVO (ESR), SERVO_840 (ESR), SERVO_AC (ESR)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> - <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 3082 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 2090.9

<b>p0890[0...4]</b>	<b>BI: ESR trigger</b>		
SERVO (ESR), SERVO_840 (ESR), SERVO_AC (ESR)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 3082 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> [0] 2090.2 [1] 9721.15 [2] 9723.1 [3] 9723.2 [4] 0
<b>p0891</b>	<b>ESR OFF ramp</b>		
SERVO (ESR), SERVO_840 (ESR), SERVO_AC (ESR)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 3082 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>p0892</b>	<b>ESR timer</b>		
SERVO (ESR), SERVO_840 (ESR), SERVO_AC (ESR)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [s]	<b>Max</b> 20.00 [s]	<b>Factory setting</b> 0.50 [s]
<b>p0893</b>	<b>ESR velocity</b>		
SERVO (ESR, Lin), SERVO_840 (ESR, Lin), SERVO_AC (ESR, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 3082 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -340.28235E36 [m/min]	<b>Max</b> 340.28235E36 [m/min]	<b>Factory setting</b> 0 [m/min]
<b>p0893</b>	<b>ESR speed</b>		
SERVO (ESR), SERVO_840 (ESR), SERVO_AC (ESR)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 3082 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -340.28235E36 [rpm]	<b>Max</b> 340.28235E36 [rpm]	<b>Factory setting</b> 0 [rpm]

<b>p0894</b>	<b>Parking pre-setting</b>		
ENC_840	Can be changed: U, T Data type: Unsigned32 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0001 bin
	Min -	Max -	

<b>p0894</b>	<b>Parking pre-setting</b>		
ENC, SERVO, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: U, T Data type: Unsigned32 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0000 bin
	Min -	Max -	

<b>p0894</b>	<b>Parking pre-setting</b>		
SERVO_840	Can be changed: U, T Data type: Unsigned32 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0001 bin
	Min -	Max -	

<b>p0895[0...n]</b>	<b>BI: Activate/de-activate power unit components</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: T Data type: Unsigned32 / Binary P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: PDS, p0120 Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 1
	Min -	Max -	

<b>r0896.0</b>	<b>BO: Parking axis, status word</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned8 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1 Factory setting -
	Min -	Max -	

<b>p0897</b>	<b>BI: Parking axis selection</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>r0898.0...10</b>	<b>CO/BO: Control word sequence control infeed</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1530, 8820, 8920 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r0898.0...10</b>	<b>CO/BO: Control word sequence control infeed</b>		
B_INF, B_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8720 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r0898.0...15</b>	<b>CO/BO: Control word drive object 1</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r0898.10</b>	<b>CO/BO: Control word sequence control encoder DO</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r0898.0...14</b>	<b>CO/BO: Control word sequence control</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned16 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: 1530, 2501 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0898.0...14</b>	<b>CO/BO: Control word sequence control</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	Can be changed: - Data type: Unsigned16 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: 1530, 2501 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0898.0...13</b>	<b>CO/BO: Control word sequence control</b>		
TM41	Can be changed: - Data type: Unsigned16 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: 9678 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0899.0...12</b>	<b>CO/BO: Status word sequence control infeed</b>		
A_INF, A_INF_840, S_INF, S_INF_840	Can be changed: - Data type: Unsigned16 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: 1530, 8826, 8926 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0899.0...12</b>	<b>CO/BO: Status word sequence control infeed</b>		
B_INF, B_INF_840	Can be changed: - Data type: Unsigned16 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: 8726 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -



<b>r0899.0...15</b>	<b>CO/BO: Status word drive object 1</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned16 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0899.7...9</b>	<b>CO/BO: Status word sequence control encoder DO</b>		
ENC, ENC_840	Can be changed: - Data type: Unsigned16 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0899.0...15</b>	<b>CO/BO: Status word sequence control</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned16 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: 1530, 2503 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0899.0...15</b>	<b>CO/BO: Status word sequence control</b>		
TM41	Can be changed: - Data type: Unsigned16 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: 9680 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>p0915[0...29]</b>	<b>TM15 PROFIdrive PZD setpoint assignment</b>		
TM15	Can be changed: T Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 4273	Factory setting [0] 4201 [1] 4204 [2] 4205 [3] 4211 [4] 4212 [5] 4213 [6...29] 0

<b>p0915[0...35]</b>	<b>TM17 PROFIdrive PZD setpoint assignment</b>		
TM17	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 4265	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> [0] 4201 [1] 4204 [2] 4211 [3] 4212 [4...35] 0

<b>p0916[0...29]</b>	<b>TM15 PROFIdrive PZD actual value assignment</b>		
TM15	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 4373	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> [0] 4301 [1] 4304 [2] 4305 [3] 4311 [4] 4312 [5] 4313 [6...29] 0

<b>p0916[0...35]</b>	<b>TM17 PROFIdrive PZD actual value assignment</b>		
TM17	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 4365	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> [0] 4301 [1] 4304 [2] 4311 [3] 4312 [4...35] 0

<b>p0918</b>	<b>PROFIBUS address</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S120_DP	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 1	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 126	<b>Access level:</b> 2 <b>Func. diagram:</b> 1520, 2410 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 126

<b>p0922</b>	<b>IF1 PROFIdrive telegram selection</b>		
A_INF_840, B_INF_840, S_INF_840	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Unsigned16  <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 999	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 999	<b>Access level:</b> 1 <b>Func. diagram:</b> 1520, 2420, 2423, 2447, 2457, 2481, 2483 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 999
<b>p0922</b>	<b>IF1 PROFIdrive telegram selection</b>		
A_INF, B_INF, S_INF	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Unsigned16  <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 370	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 999	<b>Access level:</b> 1 <b>Func. diagram:</b> 1520, 2420, 2423, 2447, 2457, 2481, 2483 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 999
<b>p0922</b>	<b>IF1 PROFIdrive telegram selection</b>		
CU_I_840	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Unsigned16  <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 390	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 999	<b>Access level:</b> 1 <b>Func. diagram:</b> 1520, 2420, 2423, 2481, 2483 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 391
<b>p0922</b>	<b>IF1 PROFIdrive telegram selection</b>		
CU_NX_840	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Unsigned16  <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 390	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 999	<b>Access level:</b> 1 <b>Func. diagram:</b> 1520, 2420, 2423, 2481, 2483 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 390
<b>p0922</b>	<b>IF1 PROFIdrive telegram selection</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Unsigned16  <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 390	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 999	<b>Access level:</b> 1 <b>Func. diagram:</b> 1520, 2420, 2423, 2481, 2483 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 999

<b>p0922</b>	<b>IF1 PROFIdrive telegram selection</b>		
ENC, ENC_840	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Unsigned16	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 1520, 2415, 2416, 2419, 2420, 2421, 2422, 2423
	<b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 81	<b>Max</b> 999	<b>Factory setting</b> 999

<b>p0922</b>	<b>IF1 PROFIdrive telegram selection</b>		
SERVO_840	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Unsigned16	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 1520, 2415, 2416, 2419, 2420, 2421, 2422, 2423
	<b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 999	<b>Factory setting</b> 136

<b>p0922</b>	<b>IF1 PROFIdrive telegram selection</b>		
SERVO, SERVO_AC	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Unsigned16	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 1520, 2415, 2416, 2419, 2420, 2421, 2422, 2423
	<b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 999	<b>Factory setting</b> 999

<b>p0922</b>	<b>IF1 PROFIdrive telegram selection</b>		
SERVO (EPOS, Pos ctrl, Spin_diag), SERVO_840 (EPOS, Pos ctrl, Spin_diag), SERVO_AC (EPOS, Pos ctrl, Spin_diag)	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Unsigned16	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 1520, 2415, 2416, 2419, 2420, 2421, 2422, 2423
	<b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 7	<b>Max</b> 999	<b>Factory setting</b> 999

<b>p0922</b>	<b>IF1 PROFIdrive telegram selection</b>		
SERVO (Pos ctrl, Spin_diag), SERVO_840 (Pos ctrl, Spin_diag), SERVO_AC (Pos ctrl, Spin_diag)	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Unsigned16	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 1520, 2415, 2416, 2419, 2420, 2421, 2422, 2423
	<b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 999	<b>Max</b> 999	<b>Factory setting</b> 999

<b>p0922</b>	<b>IF1 PROFIdrive telegram selection</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Unsigned16  <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 1	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 999	<b>Access level:</b> 1 <b>Func. diagram:</b> 1520, 2415, 2416, 2419, 2420, 2421, 2422, 2423 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 999
<b>p0922</b>	<b>IF1 PROFIdrive telegram selection</b>		
TM15, TM17	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 0	<b>Access level:</b> 1 <b>Func. diagram:</b> 2481, 2483 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0
<b>p0922</b>	<b>IF1 PROFIdrive telegram selection</b>		
TM41	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Unsigned16  <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 3	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 999	<b>Access level:</b> 1 <b>Func. diagram:</b> 1520, 9677, 9679, 9681, 9683 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 999
<b>p0922</b>	<b>IF1 PROFIdrive telegram selection</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Unsigned16  <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 1	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 999	<b>Access level:</b> 1 <b>Func. diagram:</b> 1520, 2415, 2416, 2419, 2420, 2421, 2422, 2423 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 999
<b>p0922</b>	<b>IF1 PROFIdrive telegram selection</b>		
VECTOR (EPOS, n/ M, Pos ctrl), VECTOR_AC (EPOS, n/M, Pos ctrl)	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Unsigned16  <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 7	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 999	<b>Access level:</b> 1 <b>Func. diagram:</b> 1520, 2415, 2416, 2419, 2420, 2421, 2422, 2423 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 999

<b>p0922</b>	<b>IF1 PROFIdrive telegram selection</b>		
VECTOR (n/M, Pos ctrl), VECTOR_AC (n/M, Pos ctrl)	Can be changed: C2(1), T Data type: Unsigned16	Calculated: - Dynamic index: -	Access level: 1 Func. diagram: 1520, 2415, 2416, 2419, 2420, 2421, 2422, 2423
	P-Group: Communications Not for motor type: -	Units group: - Scaling: -	Unit selection: - Expert list: 1
	Min 999	Max 999	Factory setting 999

<b>p0922</b>	<b>IF1 PROFIdrive telegram selection</b>		
VECTOR (n/M), VECTOR_AC (n/M)	Can be changed: C2(1), T Data type: Unsigned16	Calculated: - Dynamic index: -	Access level: 1 Func. diagram: 1520, 2415, 2416, 2419, 2420, 2421, 2422, 2423
	P-Group: Communications Not for motor type: -	Units group: - Scaling: -	Unit selection: - Expert list: 1
	Min 1	Max 999	Factory setting 999

<b>r0924[0...1]</b>	<b>ZSW bit pulses enabled</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2454, 2456 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>p0925</b>	<b>PROFIdrive clock synchronous sign-of-life tolerance</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR (n/M), VECTOR_AC (n/M)	Can be changed: U, T Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2410 Unit selection: - Expert list: 1
	Min 0	Max 65535	Factory setting 1

<b>r0930</b>	<b>PROFIdrive operating mode</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned16 P-Group: Setpoints Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r0944</b>	<b>CO: Counter for fault buffer changes</b>		
All objects	Can be changed: - Data type: Unsigned16 P-Group: Messages Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 8060 Unit selection: - Expert list: 1  Factory setting -
<b>r0945[0...63]</b>	<b>Fault code</b>		
All objects	Can be changed: - Data type: Unsigned16 P-Group: Messages Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 1750, 8060 Unit selection: - Expert list: 1  Factory setting -
<b>r0946[0...65534]</b>	<b>Fault code list</b>		
All objects	Can be changed: - Data type: Unsigned16 P-Group: Messages Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: 8060 Unit selection: - Expert list: 0  Factory setting -
<b>r0947[0...63]</b>	<b>Fault number</b>		
All objects	Can be changed: - Data type: Unsigned16 P-Group: Messages Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: 1750, 8060 Unit selection: - Expert list: 1  Factory setting -
<b>r0948[0...63]</b>	<b>Fault time received in milliseconds</b>		
All objects	Can be changed: - Data type: Unsigned32 P-Group: Messages Not for motor type: -  Min - [ms]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [ms]	Access level: 3 Func. diagram: 1750, 8060 Unit selection: - Expert list: 1  Factory setting - [ms]
<b>r0949[0...63]</b>	<b>Fault value</b>		
All objects	Can be changed: - Data type: Integer32 P-Group: Messages Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: 1750, 8060 Unit selection: - Expert list: 1  Factory setting -

<b>p0952</b>	<b>Fault cases, counter</b>		
All objects	Can be changed: U, T Data type: Unsigned16 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 1710, 8060 Unit selection: - Expert list: 1
	Min 0	Max 65535	Factory setting 0
<b>r0963</b>	<b>PROFIBUS baud rate</b>		
CU_S_AC_DP, CU_S120_DP	Can be changed: - Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting -
<b>r0964[0...6]</b>	<b>Device identification</b>		
CU_I_840	Can be changed: - Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0964[0...6]</b>	<b>Device identification</b>		
CU_NX_840	Can be changed: - Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0964[0...6]</b>	<b>Device identification</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0965</b>	<b>PROFIdrive profile number</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -



<b>p0969</b>	<b>System runtime relative</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1750, 8060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 4294967295 [ms]	<b>Factory setting</b> 0 [ms]
<b>p0970</b>	<b>Reset infeed parameter</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> C2(30) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Factory settings <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 100	<b>Factory setting</b> 0
<b>p0970</b>	<b>ENCODER reset parameters</b>		
ENC, ENC_840	<b>Can be changed:</b> C2(30) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Factory settings <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 100	<b>Factory setting</b> 0
<b>p0970</b>	<b>Reset drive parameters</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(30) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Factory settings <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 100	<b>Factory setting</b> 0
<b>p0970</b>	<b>TB30 reset parameters</b>		
TB30	<b>Can be changed:</b> C2(30) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Factory settings <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 100	<b>Factory setting</b> 0
<b>p0970</b>	<b>TM120 reset parameters</b>		
TM120	<b>Can be changed:</b> C2(30) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Factory settings <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 100	<b>Factory setting</b> 0

<b>p0970</b>	<b>TM15 reset parameter</b>		
TM15	Can be changed: C2(30) Data type: Unsigned16 P-Group: Factory settings Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 100	Factory setting 0

<b>p0970</b>	<b>TM150 reset parameters</b>		
TM150	Can be changed: C2(30) Data type: Unsigned16 P-Group: Factory settings Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 100	Factory setting 0

<b>p0970</b>	<b>TM15DI/DO reset parameter</b>		
TM15DI_DO	Can be changed: C2(30) Data type: Unsigned16 P-Group: Factory settings Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 100	Factory setting 0

<b>p0970</b>	<b>TM17 reset parameter</b>		
TM17	Can be changed: C2(30) Data type: Unsigned16 P-Group: Factory settings Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 100	Factory setting 0

<b>p0970</b>	<b>TM31 reset parameters</b>		
TM31	Can be changed: C2(30) Data type: Unsigned16 P-Group: Factory settings Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 100	Factory setting 0

<b>p0970</b>	<b>TM41 reset parameters</b>		
TM41	Can be changed: C2(30) Data type: Unsigned16 P-Group: Factory settings Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 100	Factory setting 0

<b>p0970</b>	<b>TM54F reset parameters</b>		
TM54F_MA	Can be changed: C2(30) Data type: Unsigned16 P-Group: Factory settings Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0
	Min 0	Max 100	
<b>p0971</b>	<b>Save drive object parameters</b>		
All objects	Can be changed: U, T Data type: Unsigned16 P-Group: Factory settings Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0
	Min 0	Max 1	
<b>p0972</b>	<b>Drive unit reset</b>		
CU_I_840	Can be changed: U, T Data type: Unsigned16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0
	Min 0	Max 3	
<b>p0972</b>	<b>Drive unit reset</b>		
CU_NX_840	Can be changed: U, T Data type: Unsigned16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0
	Min 0	Max 3	
<b>p0972</b>	<b>Drive unit reset</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: U, T Data type: Unsigned16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0
	Min 0	Max 3	
<b>r0975[0...10]</b>	<b>Drive object identification</b>		
All objects	Can be changed: - Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1 Factory setting -
	Min -	Max -	

<b>p0976</b>	<b>Reset and load all parameters</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(30) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Factory settings <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1013	<b>Factory setting</b> 0

<b>p0977</b>	<b>Save all parameters</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Factory settings <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1013	<b>Factory setting</b> 0

<b>p0978[0...24]</b>	<b>List of drive objects</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(1) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Topology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> [0] 1 [1...24] 0

<b>r0979[0...10]</b>	<b>PROFIdrive encoder format</b>		
ENC, ENC_840, TM41	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4010, 4704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r0979[0...10]</b>	<b>PROFIdrive encoder format</b>		
ENC (Lin_enc), ENC_840 (Lin_enc)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4010, 4704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r0979[0...30]</b>	<b>PROFIdrive encoder format</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 4010, 4704 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0979[0...30]</b>	<b>PROFIdrive encoder format</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 4010, 4704 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r0980[0...299]</b>	<b>List of existing parameters 1</b>		
All objects	Can be changed: - Data type: Unsigned16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 0
	Min -	Max -	Factory setting -
<b>r0981[0...299]</b>	<b>List of existing parameters 2</b>		
All objects	Can be changed: - Data type: Unsigned16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 0
	Min -	Max -	Factory setting -
<b>r0989[0...299]</b>	<b>List of existing parameters 10</b>		
All objects	Can be changed: - Data type: Unsigned16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 0
	Min -	Max -	Factory setting -
<b>r0990[0...99]</b>	<b>List of modified parameters 1</b>		
All objects	Can be changed: - Data type: Unsigned16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 0
	Min -	Max -	Factory setting -

<b>r0991[0...99]</b>	<b>List of modified parameters 2</b>		
All objects	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 0
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r0999[0...99]</b>	<b>List of modified parameters 10</b>		
All objects	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 0
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>p1000[0...n]</b>	<b>Macro Connector Inputs (CI) for speed setpoints</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1), T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> -
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	999999	0

<b>p1000[0...n]</b>	<b>Macro Connector Inputs (CI) for velocity setpoints</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(1), T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> -
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	999999	0

<b>p1001[0...n]</b>	<b>CO: Fixed velocity setpoint 1</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 1021, 3010
	<b>P-Group:</b> Setpoints	<b>Units group:</b> 4_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2000	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-1000.000 [m/min]	1000.000 [m/min]	0.000 [m/min]

<b>p1001[0...n]</b>	<b>CO: Fixed speed setpoint 1</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 1021, 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -210000.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]
<b>p1002[0...n]</b>	<b>CO: Fixed velocity setpoint 2</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]
<b>p1002[0...n]</b>	<b>CO: Fixed speed setpoint 2</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -210000.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]
<b>p1003[0...n]</b>	<b>CO: Fixed velocity setpoint 3</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]
<b>p1003[0...n]</b>	<b>CO: Fixed speed setpoint 3</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -210000.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]

<b>p1004[0...n]</b>	<b>CO: Fixed velocity setpoint 4</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]

<b>p1004[0...n]</b>	<b>CO: Fixed speed setpoint 4</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -210000.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]

<b>p1005[0...n]</b>	<b>CO: Fixed velocity setpoint 5</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]

<b>p1005[0...n]</b>	<b>CO: Fixed speed setpoint 5</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -210000.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]

<b>p1006[0...n]</b>	<b>CO: Fixed velocity setpoint 6</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]



<b>p1006[0...n]</b>	<b>CO: Fixed speed setpoint 6</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -210000.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]
<b>p1007[0...n]</b>	<b>CO: Fixed velocity setpoint 7</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]
<b>p1007[0...n]</b>	<b>CO: Fixed speed setpoint 7</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -210000.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]
<b>p1008[0...n]</b>	<b>CO: Fixed velocity setpoint 8</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]
<b>p1008[0...n]</b>	<b>CO: Fixed speed setpoint 8</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -210000.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]

<b>p1009[0...n]</b>	<b>CO: Fixed velocity setpoint 9</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]

<b>p1009[0...n]</b>	<b>CO: Fixed speed setpoint 9</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -210000.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]

<b>p1010[0...n]</b>	<b>CO: Fixed velocity setpoint 10</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]

<b>p1010[0...n]</b>	<b>CO: Fixed speed setpoint 10</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -210000.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]

<b>p1011[0...n]</b>	<b>CO: Fixed velocity setpoint 11</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]

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<b>p1011[0...n]</b>	<b>CO: Fixed speed setpoint 11</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -210000.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]

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<b>p1012[0...n]</b>	<b>CO: Fixed velocity setpoint 12</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]

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<b>p1012[0...n]</b>	<b>CO: Fixed speed setpoint 12</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -210000.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]

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<b>p1013[0...n]</b>	<b>CO: Fixed velocity setpoint 13</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]

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<b>p1013[0...n]</b>	<b>CO: Fixed speed setpoint 13</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -210000.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]

<b>p1014[0...n]</b>	<b>CO: Fixed velocity setpoint 14</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]
<b>p1014[0...n]</b>	<b>CO: Fixed speed setpoint 14</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -210000.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]
<b>p1015[0...n]</b>	<b>CO: Fixed velocity setpoint 15</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 1021, 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]
<b>p1015[0...n]</b>	<b>CO: Fixed speed setpoint 15</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 1021, 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -210000.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]
<b>p1020[0...n]</b>	<b>BI: Fixed velocity setpoint selection Bit 0</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2505 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p1020[0...n]</b>	<b>BI: Fixed speed setpoint selection Bit 0</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2505 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p1021[0...n]</b>	<b>BI: Fixed velocity setpoint selection Bit 1</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2505 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p1021[0...n]</b>	<b>BI: Fixed speed setpoint selection Bit 1</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2505 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p1022[0...n]</b>	<b>BI: Fixed velocity setpoint selection Bit 2</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2505 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p1022[0...n]</b>	<b>BI: Fixed speed setpoint selection Bit 2</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2505 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>p1023[0...n]</b>	<b>BI: Fixed velocity setpoint selection Bit 3</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2505 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p1023[0...n]</b>	<b>BI: Fixed speed setpoint selection Bit 3</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2505 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>r1024</b>	<b>CO: Fixed velocity setpoint effective</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]

<b>r1024</b>	<b>CO: Fixed speed setpoint effective</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>p1030[0...n]</b>	<b>Motorized potentiometer configuration</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3020 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0110 bin

<b>p1035[0...n]</b>	<b>BI: Motorized potentiometer setpoint raise</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2505, 3020 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p1035</b>	<b>BI: Zero marks enable</b>		
TM41	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9677 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p1036[0...n]</b>	<b>BI: Motorized potentiometer lower setpoint</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2505, 3020 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p1037[0...n]</b>	<b>Motorized potentiometer maximum velocity</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 3020 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-1000.000 [m/min]	1000.000 [m/min]	0.000 [m/min]
<b>p1037[0...n]</b>	<b>Motorized potentiometer maximum speed</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 3020 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-210000.000 [rpm]	210000.000 [rpm]	0.000 [rpm]

<b>p1038[0...n]</b>	<b>Motorized potentiometer minimum velocity</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T  <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -  <b>Min</b> -1000.000 [m/min]	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -  <b>Max</b> 1000.000 [m/min]	<b>Access level:</b> 2  <b>Func. diagram:</b> 3020 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 0.000 [m/min]

<b>p1038[0...n]</b>	<b>Motorized potentiometer minimum speed</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T  <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -  <b>Min</b> -210000.000 [rpm]	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -  <b>Max</b> 210000.000 [rpm]	<b>Access level:</b> 2  <b>Func. diagram:</b> 3020 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 0.000 [rpm]

<b>p1039[0...n]</b>	<b>BI: Motorized potentiometer inversion</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3020 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>p1040[0...n]</b>	<b>Motorized potentiometer starting value</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -  <b>Min</b> -1000.000 [m/min]	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -  <b>Max</b> 1000.000 [m/min]	<b>Access level:</b> 2 <b>Func. diagram:</b> 3020 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 0.000 [m/min]

<b>p1040[0...n]</b>	<b>Motorized potentiometer starting value</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -  <b>Min</b> -210000.000 [rpm]	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -  <b>Max</b> 210000.000 [rpm]	<b>Access level:</b> 2 <b>Func. diagram:</b> 3020 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 0.000 [rpm]



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<b>p1041[0...n]</b>	<b>BI: Motorized potentiometer manual/automatic</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3020 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p1042[0...n]</b>	<b>CI: Motorized potentiometer automatic setpoint</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3020 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p1043[0...n]</b>	<b>BI: Motorized potentiometer accept setting value</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3020 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p1044[0...n]</b>	<b>CI: Motorized potentiometer setting value</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3020 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>r1045</b>	<b>CO: Mot. potentiom. velocity setp. in front of ramp-fct. gen.</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3020 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	- [m/min]	- [m/min]	- [m/min]

<b>r1045</b>	<b>CO: Mot. potentiometer speed setp. in front of ramp-fct. gen.</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3020
	<b>P-Group:</b> Setpoints	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2000	<b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>p1047[0...n]</b>	<b>Motorized potentiometer ramp-up time</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 3020
	<b>P-Group:</b> Setpoints	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 1000.000 [s]	<b>Factory setting</b> 10.000 [s]

<b>p1048[0...n]</b>	<b>Motorized potentiometer ramp-down time</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 3020
	<b>P-Group:</b> Setpoints	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 1000.000 [s]	<b>Factory setting</b> 10.000 [s]

<b>r1050</b>	<b>CO: Motor. potentiometer setpoint after the ramp-function generator</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1550, 3020
	<b>P-Group:</b> Setpoints	<b>Units group:</b> 4_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2000	<b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]

<b>r1050</b>	<b>CO: Motor. potentiometer setpoint after the ramp-function generator</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1550, 3020
	<b>P-Group:</b> Setpoints	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2000	<b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>p1051[0...n]</b>	<b>CI: Velocity limit RFG positive direction</b>		
SERVO (ESR, Extended set, Lin), SERVO_840 (ESR, Extended set, Lin), SERVO_AC (ESR, Extended set, Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1083[0]
<b>p1051[0...n]</b>	<b>CI: Speed limit RFG positive direction of rotation</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1083[0]
<b>p1052[0...n]</b>	<b>CI: Velocity limit RFG negative direction</b>		
SERVO (ESR, Extended set, Lin), SERVO_840 (ESR, Extended set, Lin), SERVO_AC (ESR, Extended set, Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1086[0]
<b>p1052[0...n]</b>	<b>CI: Speed limit RFG negative direction of rotation</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1086[0]
<b>p1055[0...n]</b>	<b>BI: Jog bit 0</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2501, 3030 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p1056[0...n]</b>	<b>BI: Jog bit 1</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2501, 3030 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p1058[0...n]</b>	<b>Jog 1 velocity setpoint</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1550, 3030 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-1000.000 [m/min]	1000.000 [m/min]	0.000 [m/min]
<b>p1058[0...n]</b>	<b>Jog 1 speed setpoint</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1550, 3030 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-210000.000 [rpm]	210000.000 [rpm]	0.000 [rpm]
<b>p1059[0...n]</b>	<b>Jog 2 velocity setpoint</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1550, 3030 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-1000.000 [m/min]	1000.000 [m/min]	0.000 [m/min]
<b>p1059[0...n]</b>	<b>Jog 2 speed setpoint</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1550, 3030 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-210000.000 [rpm]	210000.000 [rpm]	0.000 [rpm]

<b>p1063[0...n]</b>	<b>Velocity limit setpoint channel</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3040 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 1000.000 [m/min]
<b>p1063[0...n]</b>	<b>Speed limit setpoint channel</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3040 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 210000.000 [rpm]
<b>p1063[0...n]</b>	<b>Speed limit setpoint channel</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3040 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 40000.000 [rpm]
<b>p1070[0...n]</b>	<b>CI: Main setpoint</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3030 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1024[0]
<b>p1071[0...n]</b>	<b>CI: Main setpoint scaling</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3030 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1

<b>r1073</b>	<b>CO: Main setpoint effective</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3030 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]

<b>r1073</b>	<b>CO: Main setpoint effective</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3030 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>p1075[0...n]</b>	<b>CI: Supplementary setpoint</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3030 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p1076[0...n]</b>	<b>CI: Supplementary setpoint scaling</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3030 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1

<b>r1077</b>	<b>CO: Supplementary setpoint effective</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3030 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]

<b>r1077</b>	<b>CO: Supplementary setpoint effective</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3030 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]
<b>r1078</b>	<b>CO: Total setpoint effective</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3030 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]
<b>r1078</b>	<b>CO: Total setpoint effective</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3030 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]
<b>p1080[0...n]</b>	<b>Minimum velocity</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> C2(1), T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]
<b>p1080[0...n]</b>	<b>Minimum speed</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1), T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [rpm]	<b>Max</b> 19500.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]

<b>p1082[0...n]</b>	<b>Maximum speed</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1), T <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180	<b>Access level:</b> 1 <b>Func. diagram:</b> 3020, 3050, 3060, 3070, 3095, 5300
	<b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 1500.000 [rpm]

<b>p1082[0...n]</b>	<b>Maximum velocity</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(1), T <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180	<b>Access level:</b> 1 <b>Func. diagram:</b> 3020, 3050, 3060, 3070, 3095, 5300
	<b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Units group:</b> 4_1 <b>Scaling:</b> -	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 1000.000 [m/min]

<b>r1082[0...n]</b>	<b>Encoder emulation, maximum speed</b>		
TM41	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180	<b>Access level:</b> 1 <b>Func. diagram:</b> 9674, 9676
	<b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>p1082[0...n]</b>	<b>Maximum speed</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1), T <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180	<b>Access level:</b> 1 <b>Func. diagram:</b> 3020, 3050, 3060, 3070, 3095, 5300
	<b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 1500.000 [rpm]

<b>p1083[0...n]</b>	<b>CO: Speed limit in positive direction of rotation</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180	<b>Access level:</b> 2 <b>Func. diagram:</b> 3050, 3095
	<b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 210000.000 [rpm]



<b>p1083[0...n]</b>	<b>CO: Velocity limit positive direction</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3050, 3095 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 1000.000 [m/min]
<b>p1083[0...n]</b>	<b>CO: Speed limit in positive direction of rotation</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3050, 6732 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 40000.000 [rpm]
<b>r1084</b>	<b>CO: Speed limit positive effective</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050, 3095 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]
<b>r1084</b>	<b>CO: Velocity limit positive effective</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050, 3095 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]
<b>p1085[0...n]</b>	<b>CI: Velocity limit positive direction</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1083[0]

<b>p1085[0...n]</b>	<b>CI: Speed limit in positive direction of rotation</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1083[0]

<b>p1086[0...n]</b>	<b>CO: Speed limit in negative direction of rotation</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3050, 3095 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-210000.000 [rpm]	0.000 [rpm]	-210000.000 [rpm]

<b>p1086[0...n]</b>	<b>CO: Velocity limit negative direction</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3050, 3095 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-1000.000 [m/min]	0.000 [m/min]	-1000.000 [m/min]

<b>p1086[0...n]</b>	<b>CO: Speed limit in negative direction of rotation</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-210000.000 [rpm]	0.000 [rpm]	-40000.000 [rpm]

<b>r1087</b>	<b>CO: Speed limit negative effective</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050, 3095 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	- [rpm]	- [rpm]	- [rpm]

<b>r1087</b>	<b>CO: Velocity limit negative effective</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050, 3095 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]
<b>p1088[0...n]</b>	<b>CI: Velocity limit negative direction</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1086[0]
<b>p1088[0...n]</b>	<b>CI: Speed limit in negative direction of rotation</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1086[0]
<b>p1091[0...n]</b>	<b>Skip velocity 1</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]
<b>p1091[0...n]</b>	<b>Skip speed 1</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]

<b>p1092[0...n]</b>	<b>Skip velocity 2</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]

<b>p1092[0...n]</b>	<b>Skip speed 2</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]

<b>p1093[0...n]</b>	<b>Skip velocity 3</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]

<b>p1093[0...n]</b>	<b>Skip speed 3</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]

<b>p1094[0...n]</b>	<b>Skip velocity 4</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]

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<b>p1094[0...n]</b>	<b>Skip speed 4</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]

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<b>p1101[0...n]</b>	<b>Skip velocity bandwidth</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 0.000 [m/min]

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<b>p1101[0...n]</b>	<b>Skip speed bandwidth</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 0.000 [rpm]

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<b>p1106[0...n]</b>	<b>Cl: Minimum velocity signal source</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p1106[0...n]</b>	<b>Cl: Minimum speed signal source</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p1110[0...n]</b>	<b>BI: Inhibit negative direction</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2505, 3040 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p1111[0...n]</b>	<b>BI: Inhibit positive direction</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2505, 3040 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>r1112</b>	<b>CO: Velocity setpoint after minimum limiting</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	- [m/min]	- [m/min]	- [m/min]
<b>r1112</b>	<b>CO: Speed setpoint after minimum limiting</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	- [rpm]	- [rpm]	- [rpm]
<b>p1113[0...n]</b>	<b>BI: Setpoint inversion</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2441, 2442, 2505, 3040 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>r1114</b>	<b>CO: Setpoint after the direction limiting</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3040, 3050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting</b> - [m/min]
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	

<b>r1114</b>	<b>CO: Setpoint after the direction limiting</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3040, 3050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting</b> - [rpm]
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	

<b>p1115</b>	<b>Ramp-function generator selection</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3080 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0
	<b>Min</b> 0	<b>Max</b> 1	

<b>r1119</b>	<b>CO: Ramp-function generator setpoint at the input</b>		
SERVO (ESR, Extended set, Lin), SERVO_840 (ESR, Extended set, Lin), SERVO_AC (ESR, Extended set, Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 1690, 3050, 3060, 3070 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting</b> - [m/min]
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	

<b>r1119</b>	<b>CO: Ramp-function generator setpoint at the input</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 1690, 3050, 3060, 3070 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting</b> - [rpm]
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	

<b>p1120[0...n]</b>	<b>Ramp-function generator ramp-up time</b>		
SERVO (ESR, Extended set, Lin), SERVO_840 (ESR, Extended set, Lin), SERVO_AC (ESR, Extended set, Lin)	<b>Can be changed:</b> C2(1), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3060, 3070 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 999999.000 [s]	<b>Factory setting</b> 10.000 [s]

<b>p1120[0...n]</b>	<b>Ramp-function generator ramp-up time</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set)	<b>Can be changed:</b> C2(1), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3060, 3070 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 999999.000 [s]	<b>Factory setting</b> 10.000 [s]

<b>p1120[0...n]</b>	<b>Ramp-function generator ramp-up time</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3060, 3070 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 999999.000 [s]	<b>Factory setting</b> 10.000 [s]

<b>p1121[0...n]</b>	<b>Ramp-function generator ramp-down time</b>		
SERVO_840	<b>Can be changed:</b> C2(1), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3060, 3070 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 999999.000 [s]	<b>Factory setting</b> 0.000 [s]

<b>p1121[0...n]</b>	<b>Ramp-function generator ramp-down time</b>		
SERVO, SERVO_AC	<b>Can be changed:</b> C2(1), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3060, 3070 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 999999.000 [s]	<b>Factory setting</b> 10.000 [s]



<b>p1121[0...n]</b>	<b>Ramp-function generator ramp-down time</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(1), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3060, 3070 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 999999.000 [s]	<b>Factory setting</b> 0.000 [s]
<b>p1121[0...n]</b>	<b>Ramp-function generator ramp-down time</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3060, 3070 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 999999.000 [s]	<b>Factory setting</b> 10.000 [s]
<b>p1122[0...n]</b>	<b>BI: Bypass ramp-function generator</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2505 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p1130[0...n]</b>	<b>Ramp-function generator initial rounding-off time</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 3070 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 30.000 [s]	<b>Factory setting</b> 0.000 [s]
<b>p1131[0...n]</b>	<b>Ramp-function generator final rounding-off time</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 3070 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 30.000 [s]	<b>Factory setting</b> 0.000 [s]

<b>p1134[0...n]</b>	<b>Ramp-function generator rounding-off type</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 3070 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p1135[0...n]</b>	<b>OFF3 ramp-down time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 3060, 3070 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 600.000 [s]	<b>Factory setting</b> 0.000 [s]

<b>p1135[0...n]</b>	<b>OFF3 ramp-down time</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(1), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 3060, 3070 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 600.000 [s]	<b>Factory setting</b> 0.000 [s]

<b>p1135[0...n]</b>	<b>OFF3 ramp-down time</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 3060, 3070 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 600.000 [s]	<b>Factory setting</b> 3.000 [s]

<b>p1136[0...n]</b>	<b>OFF3 initial rounding-off time</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 3070 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 30.000 [s]	<b>Factory setting</b> 0.000 [s]

<b>p1137[0...n]</b>	<b>OFF3 final rounding-off time</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 3070 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 30.000 [s]	<b>Factory setting</b> 0.000 [s]
<b>p1138[0...n]</b>	<b>CI: Up ramp scaling</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 3060, 3070 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1
<b>p1139[0...n]</b>	<b>CI: Down ramp scaling</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 3060, 3070 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1
<b>p1140[0...n]</b>	<b>BI: Enable ramp-function generator/inhibit ramp-function generator</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2501 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1
<b>p1140</b>	<b>BI: Enable ramp-function generator/inhibit ramp-function generator</b>		
TM41	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9678 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1

<b>p1141[0...n]</b>	<b>BI: Continue ramp-function generator/freeze ramp-function generator</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 2501
	<b>P-Group:</b> Setpoints	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1

<b>p1141</b>	<b>BI: Continue ramp-function generator/freeze ramp-function generator</b>		
TM41	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 9678
	<b>P-Group:</b> Setpoints	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1

<b>p1142[0...n]</b>	<b>BI: Enable setpoint/inhibit setpoint</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 2501
	<b>P-Group:</b> Setpoints	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1

<b>p1142</b>	<b>BI: Enable setpoint/inhibit setpoint</b>		
TM41	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 9674, 9678
	<b>P-Group:</b> Setpoints	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1

<b>p1143[0...n]</b>	<b>BI: Ramp-function generator, accept setting value</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 3060, 3070
	<b>P-Group:</b> Setpoints	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>p1144[0...n]</b>	<b>CI: Ramp-function generator setting value</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3060, 3070 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p1145[0...n]</b>	<b>Ramp-function generator tracking intensity.</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3080 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0	<b>Max</b> 50.0	<b>Factory setting</b> 1.3

<b>p1145[0...n]</b>	<b>Ramp-function generator tracking intensity.</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3080 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0	<b>Max</b> 50.0	<b>Factory setting</b> 1.3

<b>p1148[0...n]</b>	<b>Ramp-function gen., tolerance for ramp-up and ramp-down active</b>		
SERVO (ESR, Extended set, Lin), SERVO_840 (ESR, Extended set, Lin), SERVO_AC (ESR, Extended set, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3060, 3070 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [m/min]	<b>Max</b> 10.000 [m/min]	<b>Factory setting</b> 0.200 [m/min]

<b>p1148[0...n]</b>	<b>Ramp-function gen., tolerance for ramp-up and ramp-down active</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3060, 3070 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [rpm]	<b>Max</b> 1000.000 [rpm]	<b>Factory setting</b> 19.800 [rpm]

<b>r1149</b>	<b>CO: Ramp-function generator, acceleration</b>		
SERVO (ESR, Extended set, Lin), SERVO_840 (ESR, Extended set, Lin), SERVO_AC (ESR, Extended set, Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 22_2 <b>Scaling:</b> p2007	<b>Access level:</b> 3 <b>Func. diagram:</b> 3060, 3070 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/s <sup>2</sup> ]	<b>Max</b> - [m/s <sup>2</sup> ]	<b>Factory setting</b> - [m/s <sup>2</sup> ]

<b>r1149</b>	<b>CO: Ramp-function generator, acceleration</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 39_1 <b>Scaling:</b> p2007	<b>Access level:</b> 3 <b>Func. diagram:</b> 3060, 3070 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rev/s <sup>2</sup> ]	<b>Max</b> - [rev/s <sup>2</sup> ]	<b>Factory setting</b> - [rev/s <sup>2</sup> ]

<b>r1150</b>	<b>CO: Ramp-function generator velocity setpoint at the output</b>		
SERVO (ESR, Extended set, Lin), SERVO_840 (ESR, Extended set, Lin), SERVO_AC (ESR, Extended set, Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3080 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]

<b>r1150</b>	<b>CO: Ramp-function generator speed setpoint at the output</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3080 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>p1151[0...n]</b>	<b>Ramp-function generator configuration</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 3070 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin

<b>p1152</b>	<b>BI: Setpoint 2 enable</b>		
SERVO (Extended brk), SERVO_840 (Extended brk), SERVO_AC (Extended brk), VECTOR (Extended brk), VECTOR_AC (Extended brk)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2711, 4015 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	899.15
<b>p1155[0...n]</b>	<b>CI: Speed controller speed setpoint 1</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3080, 5030, 6031 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p1155[0...n]</b>	<b>CI: Velocity controller, velocity setpoint 1</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3080, 5030, 6031 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p1155</b>	<b>CI: TM41 encoder emulation speed setpoint 1</b>		
TM41	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 9674 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p1160[0...n]</b>	<b>CI: Speed controller speed setpoint 2</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3080 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>p1160[0...n]</b>	<b>CI: Velocity controller, velocity setpoint 2</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3080 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0
<b>r1169</b>	<b>CO: Speed controller, speed setpoints 1 and 2</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -  <b>Min</b> - [rpm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000  <b>Max</b> - [rpm]	<b>Access level:</b> 3 <b>Func. diagram:</b> 3080 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [rpm]
<b>r1169</b>	<b>CO: Velocity controller, velocity setpoints 1 and 2</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -  <b>Min</b> - [m/min]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000  <b>Max</b> - [m/min]	<b>Access level:</b> 3 <b>Func. diagram:</b> 3080 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [m/min]
<b>r1170</b>	<b>CO: Speed controller, setpoint sum</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -  <b>Min</b> - [rpm]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 3_1 <b>Scaling:</b> p2000  <b>Max</b> - [rpm]	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 1590, 1690, 1700, 1750, 3080, 5020, 6030 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [rpm]
<b>r1170</b>	<b>CO: Velocity controller, setpoint sum</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -  <b>Min</b> - [m/min]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 4_1 <b>Scaling:</b> p2000  <b>Max</b> - [m/min]	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 1590, 1750, 3080, 5020 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [m/min]



<b>p1189[0...n]</b>	<b>Speed setpoint configuration</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 3080 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0011 bin
<b>p1189[0...n]</b>	<b>Velocity setpoint configuration</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 3080 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0011 bin
<b>p1189</b>	<b>TM41 encoder simulation configuration</b>		
TM41	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 9674 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0010 bin
<b>p1190</b>	<b>CI: DSC position deviation XERR</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3090 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p1191</b>	<b>CI: DSC position controller gain KPC</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3090 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p1192[0...n]</b>	<b>DSC enc selection</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3090 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 3	<b>Factory setting</b> 1

<b>p1193[0...n]</b>	<b>DSC encoder adaptation factor</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3090 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 1000000.000	<b>Factory setting</b> 1.000

<b>p1194</b>	<b>CI: DSC control word DSC_STW</b>		
SERVO (DSC spline, Lin), SERVO_840 (DSC spline, Lin), SERVO_AC (DSC spline, Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3090 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p1194</b>	<b>CI: DSC control word DSC_STW</b>		
SERVO (DSC spline), SERVO_840 (DSC spline), SERVO_AC (DSC spline)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3090 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p1195</b>	<b>CI: DSC symmetrizing time constant T_SYMM</b>		
SERVO (DSC spline, Lin), SERVO_840 (DSC spline, Lin), SERVO_AC (DSC spline, Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3090 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p1195</b>	<b>CI: DSC symmetrizing time constant T_SYMM</b>		
SERVO (DSC spline), SERVO_840 (DSC spline), SERVO_AC (DSC spline)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3090 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>r1197</b>	<b>Fixed velocity setpoint number actual</b>		
SERVO (Extended set, Lin), SERVO_840 (Extended set, Lin), SERVO_AC (Extended set, Lin)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r1197</b>	<b>Fixed speed setpoint number actual</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-
<b>r1198.0...15</b>	<b>CO/BO: Control word setpoint channel</b>		
SERVO (Extended set), SERVO_840 (Extended set), SERVO_AC (Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1530, 2505 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-
<b>r1199.0...8</b>	<b>CO/BO: Ramp-function generator status word</b>		
SERVO (ESR, Extended set), SERVO_840 (ESR, Extended set), SERVO_AC (ESR, Extended set), VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 3080, 8010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-
<b>p1200[0...n]</b>	<b>Flying restart operating mode</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1690 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	6	0
<b>p1201[0...n]</b>	<b>BI: Flying restart enable signal source</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1

<b>p1202[0...n]</b>	<b>Flying restart search current</b>		
VECTOR, VECTOR_AC	Can be changed: U, T Data type: FloatingPoint32 P-Group: Functions Not for motor type: PEM, REL	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min 10 [%]	Max 400 [%]	Factory setting 100 [%]
<b>p1203[0...n]</b>	<b>Flying restart search rate factor</b>		
VECTOR, VECTOR_AC	Can be changed: U, T Data type: FloatingPoint32 P-Group: Functions Not for motor type: PEM, REL	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 10 [%]	Max 4000 [%]	Factory setting 100 [%]
<b>r1204.0...13</b>	<b>CO/BO: Flying restart, U/f control status</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned16 P-Group: Functions Not for motor type: PEM, REL	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r1205.0...15</b>	<b>CO/BO: Flying restart, vector control status</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned16 P-Group: Functions Not for motor type: PEM, REL	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>p1206[0...9]</b>	<b>Faults without automatic restart</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: U, T Data type: Unsigned16 P-Group: Functions Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 65535	Factory setting 0

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<b>p1207</b>	<b>BI: AR connection following drive object</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p1208[0...1]</b>	<b>BI: AR modification infeed</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p1210</b>	<b>Automatic restart, mode</b>		
A_INF, A_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 6	<b>Factory setting</b> 0

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<b>p1210</b>	<b>Automatic restart, mode</b>		
B_INF, B_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 6	<b>Factory setting</b> 0

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<b>p1210</b>	<b>Automatic restart, mode</b>		
S_INF, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 6	<b>Factory setting</b> 0

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<b>p1210</b>	<b>Automatic restart, mode</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 16	<b>Factory setting</b> 0

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<b>p1210</b>	<b>Automatic restart, mode</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 16	<b>Factory setting</b> 0

<b>p1211</b>	<b>Automatic restart, start attempts</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 10	<b>Factory setting</b> 3

<b>p1211</b>	<b>Automatic restart, start attempts</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 10	<b>Factory setting</b> 3

<b>p1212</b>	<b>Automatic restart, delay time start attempts</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.1 [s]	<b>Max</b> 1000.0 [s]	<b>Factory setting</b> 1.0 [s]

<b>p1212</b>	<b>Automatic restart, delay time start attempts</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.1 [s]	<b>Max</b> 1000.0 [s]	<b>Factory setting</b> 1.0 [s]

<b>p1213[0...1]</b>	<b>Automatic restart, monitoring time</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [s]	<b>Max</b> 10000.0 [s]	<b>Factory setting</b> 0.0 [s]

<b>p1213[0...1]</b>	<b>Automatic restart, monitoring time</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [s]	<b>Max</b> 10000.0 [s]	<b>Factory setting</b> 0.0 [s]
<b>r1214.0...15</b>	<b>CO/BO: Automatic restart, status</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r1214.0...15</b>	<b>CO/BO: Automatic restart, status</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p1215</b>	<b>Motor holding brake configuration</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2701, 2707, 2711 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 0
<b>p1216</b>	<b>Motor holding brake, opening time</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2701, 2711 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 10000 [ms]	<b>Factory setting</b> 100 [ms]
<b>p1217</b>	<b>Motor holding brake closing time</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2701, 2711 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 10000 [ms]	<b>Factory setting</b> 100 [ms]

<b>p1218[0...1]</b>	<b>BI: Open motor holding brake</b>		
SERVO (Extended brk), SERVO_840 (Extended brk), SERVO_AC (Extended brk), VECTOR (Extended brk), VECTOR_AC (Extended brk)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2707 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1

<b>p1219[0...3]</b>	<b>BI: Immediately close motor holding brake</b>		
SERVO (Extended brk), SERVO_840 (Extended brk), SERVO_AC (Extended brk), VECTOR (Extended brk), VECTOR_AC (Extended brk)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2707 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	[0] 0 [1] 0 [2] 0 [3] 1229.9

<b>p1220</b>	<b>CI: Open motor holding brake, signal source, threshold</b>		
SERVO (Extended brk), SERVO_840 (Extended brk), SERVO_AC (Extended brk), VECTOR (Extended brk), VECTOR_AC (Extended brk)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 2707 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1

<b>p1221</b>	<b>Open motor holding brake, threshold</b>		
SERVO (Extended brk), SERVO_840 (Extended brk), SERVO_AC (Extended brk), VECTOR (Extended brk), VECTOR_AC (Extended brk)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2707 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0.00 [%]	200.00 [%]	0.00 [%]



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<b>p1222</b>	<b>BI: Motor holding brake feedback signal brake closed</b>		
SERVO (Extended brk), SERVO_840 (Extended brk), SERVO_AC (Extended brk), VECTOR (Extended brk), VECTOR_AC (Extended brk)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2711 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p1223</b>	<b>BI: Motor holding brake feedback signal brake open</b>		
SERVO (Extended brk), SERVO_840 (Extended brk), SERVO_AC (Extended brk), VECTOR (Extended brk), VECTOR_AC (Extended brk)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2711 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1

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<b>p1224[0...3]</b>	<b>BI: Close motor holding brake at standstill</b>		
SERVO (Extended brk), SERVO_840 (Extended brk), SERVO_AC (Extended brk), VECTOR (Extended brk), VECTOR_AC (Extended brk)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p1225</b>	<b>CI: Standstill detection, threshold value</b>		
SERVO (Extended brk), SERVO_840 (Extended brk), SERVO_AC (Extended brk), VECTOR (Extended brk), VECTOR_AC (Extended brk)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> 2704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	63[0]

<b>p1226[0...n]</b>	<b>Threshold for zero speed detection</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2701, 2704 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 20.00 [rpm]

<b>p1226[0...n]</b>	<b>Standstill detection, velocity threshold</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2701, 2704 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 1000.00 [m/min]	<b>Factory setting</b> 0.20 [m/min]

<b>p1227</b>	<b>Zero speed detection monitoring time</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2701, 2704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 300.000 [s]	<b>Factory setting</b> 4.000 [s]

<b>p1228</b>	<b>Pulse suppression delay time</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2701, 2704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 299.000 [s]	<b>Factory setting</b> 0.000 [s]

<b>r1229.1...11</b>	<b>CO/BO: Motor holding brake status word</b>		
SERVO (Extended brk), SERVO_840 (Extended brk), SERVO_AC (Extended brk), VECTOR (Extended brk), VECTOR_AC (Extended brk)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p1230[0...n]</b>	<b>BI: Armature short-circuit / DC braking activation</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Functions <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 7014, 7016, 7017 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0
<b>p1231[0...n]</b>	<b>Armature short-circuit / DC braking configuration</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Functions <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 14	<b>Access level:</b> 1 <b>Func. diagram:</b> 7014, 7016, 7017 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0
<b>p1232[0...n]</b>	<b>DC braking, braking current</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> PEM, REL, FEM  <b>Min</b> 0.00 [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 10000.00 [Arms]	<b>Access level:</b> 1 <b>Func. diagram:</b> 7017 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [Arms]
<b>p1232[0...n]</b>	<b>DC braking, braking current</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> PEM, REL, FEM  <b>Min</b> 0.00 [Arms]	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 10000.00 [Arms]	<b>Access level:</b> 1 <b>Func. diagram:</b> 7017 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [Arms]
<b>p1233[0...n]</b>	<b>DC braking time</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> PEM, REL, FEM  <b>Min</b> 0.0 [s]	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 3600.0 [s]	<b>Access level:</b> 1 <b>Func. diagram:</b> 7017 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 1.0 [s]

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<b>p1234[0...n]</b>	<b>Speed at the start of DC braking</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 7017 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 210000.00 [rpm]

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<b>p1234[0...n]</b>	<b>DC braking, starting velocity</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 7017 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 1000.00 [m/min]	<b>Factory setting</b> 1000.00 [m/min]

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<b>p1234[0...n]</b>	<b>Speed at the start of DC braking</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 7017 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 40000.00 [rpm]

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<b>p1235[0...n]</b>	<b>Bl: External armature short-circuit, contactor feedback signal</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p1236[0...n]</b>	<b>Ext. armature short-cct., contactor feedback signal monit. time</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 1000 [ms]	<b>Factory setting</b> 200 [ms]

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<b>p1237[0...n]</b>	<b>External armature short-circuit, delay time when opening</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 1000 [ms]	<b>Factory setting</b> 200 [ms]

<b>r1238</b>	<b>CO: Armature short-circuit, external state</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Functions <b>Not for motor type:</b> ASM	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 2610 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> -
	<b>Min</b> 0	<b>Max</b> 6	
<b>r1239.0...13</b>	<b>CO/BO: Armature short-circuit / DC braking status word</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> -
	<b>Min</b> -	<b>Max</b> -	
<b>p1240[0...n]</b>	<b>Vdc controller or Vdc monitoring configuration</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3082, 5650 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 9	
<b>p1240[0...n]</b>	<b>Vdc controller or Vdc monitoring configuration</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6220 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 1
	<b>Min</b> 0	<b>Max</b> 6	
<b>r1242</b>	<b>Vdc_max controller switch-in level</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> 6220 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> - [V]
	<b>Min</b> - [V]	<b>Max</b> - [V]	
<b>p1243[0...n]</b>	<b>Vdc_max controller dynamic factor</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6220 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 100 [%]
	<b>Min</b> 1 [%]	<b>Max</b> 10000 [%]	

<b>p1244[0...n]</b>	<b>DC link voltage threshold upper</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5650 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 750 [V]
<b>p1245[0...n]</b>	<b>Vdc_min controller switch-in level (kinetic buffering)</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 76 [%]
<b>r1246</b>	<b>Vdc_min controller switch-in level (kinetic buffering)</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> 6220 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [V]
<b>p1247[0...n]</b>	<b>Vdc_min controller dynamic factor (kinetic buffering)</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6220 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 100 [%]
<b>p1248[0...n]</b>	<b>DC link voltage threshold lower</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5650 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 450 [V]
<b>p1249[0...n]</b>	<b>Vdc_max controller speed threshold</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 10.00 [rpm]

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<b>p1250[0...n]</b>	<b>Vdc controller proportional gain</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 19_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5650 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [A/V]	<b>Max</b> 10.00 [A/V]	<b>Factory setting</b> 1.00 [A/V]

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<b>p1250[0...n]</b>	<b>Vdc controller proportional gain</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00	<b>Max</b> 100.00	<b>Factory setting</b> 1.00

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<b>p1251[0...n]</b>	<b>Vdc controller integral time</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6220 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 10000 [ms]	<b>Factory setting</b> 0 [ms]

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<b>p1252[0...n]</b>	<b>Vdc controller rate time</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6220 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 1000 [ms]	<b>Factory setting</b> 0 [ms]

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<b>p1254</b>	<b>Vdc_max controller automatic ON level detection</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 1

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<b>p1255[0...n]</b>	<b>Vdc_min controller time threshold</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 10000.000 [s]	<b>Factory setting</b> 0.000 [s]

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<b>p1256[0...n]</b>	<b>Vdc_min controller response (kinetic buffering)</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Functions	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p1257[0...n]</b>	<b>Vdc_min controller speed threshold</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_ALL	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Functions	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 50.00 [rpm]

<b>r1258</b>	<b>CO: Vdc controller output</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6220
	<b>P-Group:</b> Functions	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2002	<b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

<b>p1260</b>	<b>Bypass configuration</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 0

<b>r1261.0...9</b>	<b>CO/BO: Bypass control/status word</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p1262[0...n]</b>	<b>Bypass dead time</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_REG	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 20.000 [s]	<b>Factory setting</b> 1.000 [s]



<b>p1263</b>	<b>Debypass delay time</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 300.000 [s]	<b>Factory setting</b> 1.000 [s]
<b>p1264</b>	<b>Bypass delay time</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 300.000 [s]	<b>Factory setting</b> 1.000 [s]
<b>p1265</b>	<b>Bypass speed threshold</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 1480.00 [rpm]
<b>p1266</b>	<b>BI: Bypass, control command</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p1267</b>	<b>Bypass changeover source configuration</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin
<b>p1268</b>	<b>BI: Bypass, feedback synchronization completed</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 3819.2

<b>p1269[0...1]</b>	<b>BI: Bypass switch feedback signal</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p1272</b>	<b>Simulation mode</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p1274[0...1]</b>	<b>Bypass switch monitoring time</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 5000 [ms]	<b>Factory setting</b> 1000 [ms]

<b>p1275</b>	<b>Motor holding brake control word</b>		
SERVO (Extended brk), SERVO_840 (Extended brk), SERVO_AC (Extended brk), VECTOR (Extended brk), VECTOR_AC (Extended brk)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 bin

<b>p1276</b>	<b>Motor holding brake, standstill detection, bypass</b>		
SERVO (Extended brk), SERVO_840 (Extended brk), SERVO_AC (Extended brk), VECTOR (Extended brk), VECTOR_AC (Extended brk)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 300.000 [s]	<b>Factory setting</b> 300.000 [s]

<b>p1277</b>	<b>Motor holding brake, braking threshold delay exceeded</b>		
SERVO (Extended brk), SERVO_840 (Extended brk), SERVO_AC (Extended brk), VECTOR (Extended brk), VECTOR_AC (Extended brk)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2707 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 300.000 [s]	<b>Factory setting</b> 0.000 [s]
<b>p1278</b>	<b>Brake control, diagnostics evaluation</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>p1279[0...3]</b>	<b>BI: Motor holding brake, OR/AND logic operation</b>		
SERVO (Extended brk), SERVO_840 (Extended brk), SERVO_AC (Extended brk), VECTOR (Extended brk), VECTOR_AC (Extended brk)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2707 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p1280[0...n]</b>	<b>Vdc controller or Vdc monitoring configuration (U/f)</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1690, 6320 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 6	<b>Factory setting</b> 1
<b>r1282</b>	<b>Vdc_max controller switch-in level (U/f)</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> 6320 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

<b>p1283[0...n]</b>	<b>Vdc_max controller dynamic factor (U/f)</b>		
VECTOR, VECTOR_AC	Can be changed: U, T Data type: FloatingPoint32 P-Group: Functions Not for motor type: -  Min 1 [%]	Calculated: CALC_MOD_CON Dynamic index: DDS, p0180 Units group: - Scaling: -  Max 10000 [%]	Access level: 3 Func. diagram: 6320 Unit selection: - Expert list: 1  Factory setting 100 [%]
<b>p1285[0...n]</b>	<b>Vdc_min controller switch-in level (kinetic buffering) (U/f)</b>		
VECTOR, VECTOR_AC	Can be changed: U, T Data type: FloatingPoint32 P-Group: Functions Not for motor type: -  Min 65 [%]	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -  Max 150 [%]	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 76 [%]
<b>r1286</b>	<b>Vdc_min controller switch-in level (kinetic buffering) (U/f)</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Functions Not for motor type: -  Min - [V]	Calculated: - Dynamic index: - Units group: - Scaling: p2001  Max - [V]	Access level: 3 Func. diagram: 6320 Unit selection: - Expert list: 1  Factory setting - [V]
<b>p1287[0...n]</b>	<b>Vdc_min controller dynamic factor (kinetic buffering) (U/f)</b>		
VECTOR, VECTOR_AC	Can be changed: U, T Data type: FloatingPoint32 P-Group: Functions Not for motor type: -  Min 1 [%]	Calculated: CALC_MOD_CON Dynamic index: DDS, p0180 Units group: - Scaling: -  Max 10000 [%]	Access level: 3 Func. diagram: 6320 Unit selection: - Expert list: 1  Factory setting 100 [%]
<b>p1288[0...n]</b>	<b>Vdc_max controller feedback coupling factor ramp-fct. gen. (U/f)</b>		
VECTOR, VECTOR_AC	Can be changed: U, T Data type: FloatingPoint32 P-Group: Functions Not for motor type: -  Min 0.000	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -  Max 100.000	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0.500
<b>p1289[0...n]</b>	<b>Vdc_max controller speed threshold (U/f)</b>		
VECTOR, VECTOR_AC	Can be changed: U, T Data type: FloatingPoint32 P-Group: Functions Not for motor type: -  Min 0.00 [rpm]	Calculated: CALC_MOD_ALL Dynamic index: DDS, p0180 Units group: 3_1 Scaling: -  Max 210000.00 [rpm]	Access level: 3 Func. diagram: - Unit selection: p0505 Expert list: 1  Factory setting 10.00 [rpm]

<b>p1290[0...n]</b>	<b>Vdc controller proportional gain (U/f)</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6320 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00	<b>Max</b> 100.00	<b>Factory setting</b> 1.00
<b>p1291[0...n]</b>	<b>Vdc controller integral time (U/f)</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6320 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 10000 [ms]	<b>Factory setting</b> 40 [ms]
<b>p1292[0...n]</b>	<b>Vdc controller rate time (U/f)</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6320 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 1000 [ms]	<b>Factory setting</b> 10 [ms]
<b>p1293[0...n]</b>	<b>Vdc min controller output limit (U/f)</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6320 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Hz]	<b>Max</b> 600.00 [Hz]	<b>Factory setting</b> 10.00 [Hz]
<b>p1294</b>	<b>Vdc_max controller automatic detection ON signal level (U/f)</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>p1295[0...n]</b>	<b>Vdc_min controller time threshold (U/f)</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 10000.000 [s]	<b>Factory setting</b> 0.000 [s]

<b>p1296[0...n]</b>	<b>Vdc_min controller response (kinetic buffering) (U/f)</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Functions	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p1297[0...n]</b>	<b>Vdc_min controller speed threshold (U/f)</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_ALL	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Functions	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 50.00 [rpm]

<b>r1298</b>	<b>CO: Vdc controller output (U/f)</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6320
	<b>P-Group:</b> Functions	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2000	<b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>p1300[0...n]</b>	<b>Open-loop/closed-loop control operating mode</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1), T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 1590, 1690, 5060, 6300
	<b>P-Group:</b> U/f open-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 20	<b>Max</b> 23	<b>Factory setting</b> 21

<b>p1300[0...n]</b>	<b>Open-loop/closed-loop control operating mode</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(1), T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 1590, 1690, 5060, 6300
	<b>P-Group:</b> U/f open-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 20	<b>Max</b> 23	<b>Factory setting</b> 21

<b>p1300[0...n]</b>	<b>Open-loop/closed-loop control operating mode</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Integer16	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180	<b>Access level:</b> 2 <b>Func. diagram:</b> 1690, 6300, 6310, 6320
	<b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 19	<b>Factory setting</b> 0
<b>p1300[0...n]</b>	<b>Open-loop/closed-loop control operating mode</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Integer16	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180	<b>Access level:</b> 2 <b>Func. diagram:</b> 1690, 1700, 6300, 8012
	<b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 23	<b>Factory setting</b> 20
<b>p1302[0...n]</b>	<b>U/f control configuration</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180	<b>Access level:</b> 3 <b>Func. diagram:</b> -
	<b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin
<b>p1310[0...n]</b>	<b>Voltage boost permanent</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180	<b>Access level:</b> 2 <b>Func. diagram:</b> 1690, 6300
	<b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 250.0 [%]	<b>Factory setting</b> 50.0 [%]
<b>p1311[0...n]</b>	<b>Voltage boost at acceleration</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180	<b>Access level:</b> 2 <b>Func. diagram:</b> 1690, 6300
	<b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 250.0 [%]	<b>Factory setting</b> 0.0 [%]

<b>p1312[0...n]</b>	<b>Voltage boost when starting</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1690, 6300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 250.0 [%]	<b>Factory setting</b> 0.0 [%]
<b>r1315</b>	<b>Voltage boost total</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> 6300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]
<b>p1317[0...n]</b>	<b>U/f control activation</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1590, 5730 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>p1318[0...n]</b>	<b>U/f control ramp-up/ramp-down time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 999999.000 [s]	<b>Factory setting</b> 10.000 [s]
<b>p1319[0...n]</b>	<b>U/f control voltage at zero frequency</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [Vrms]	<b>Max</b> 50.0 [Vrms]	<b>Factory setting</b> 0.0 [Vrms]
<b>p1320[0...n]</b>	<b>U/f control programmable characteristic frequency 1</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Hz]	<b>Max</b> 3000.00 [Hz]	<b>Factory setting</b> 0.00 [Hz]



<b>p1321[0...n]</b>	<b>U/f control programmable characteristic voltage 1</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [Vrms]	<b>Max</b> 10000.0 [Vrms]	<b>Factory setting</b> 0.0 [Vrms]
<b>p1322[0...n]</b>	<b>U/f control programmable characteristic frequency 2</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Hz]	<b>Max</b> 3000.00 [Hz]	<b>Factory setting</b> 0.00 [Hz]
<b>p1323[0...n]</b>	<b>U/f control programmable characteristic voltage 2</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [Vrms]	<b>Max</b> 10000.0 [Vrms]	<b>Factory setting</b> 0.0 [Vrms]
<b>p1324[0...n]</b>	<b>U/f control programmable characteristic frequency 3</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Hz]	<b>Max</b> 3000.00 [Hz]	<b>Factory setting</b> 0.00 [Hz]
<b>p1325[0...n]</b>	<b>U/f control programmable characteristic voltage 3</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [Vrms]	<b>Max</b> 10000.0 [Vrms]	<b>Factory setting</b> 0.0 [Vrms]
<b>p1326[0...n]</b>	<b>U/f control characteristic frequency</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Hz]	<b>Max</b> 10000.00 [Hz]	<b>Factory setting</b> 0.00 [Hz]

<b>p1326[0...n]</b>	<b>U/f control programmable characteristic frequency 4</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Hz]	<b>Max</b> 10000.00 [Hz]	<b>Factory setting</b> 0.00 [Hz]
<b>p1327[0...n]</b>	<b>U/f control characteristic voltage</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [Vrms]	<b>Max</b> 10000.0 [Vrms]	<b>Factory setting</b> 0.0 [Vrms]
<b>p1327[0...n]</b>	<b>U/f control programmable characteristic voltage 4</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [Vrms]	<b>Max</b> 10000.0 [Vrms]	<b>Factory setting</b> 0.0 [Vrms]
<b>p1330[0...n]</b>	<b>CI: U/f control independent voltage setpoint</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> 6300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p1333[0...n]</b>	<b>U/f control FCC starting frequency</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6310 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Hz]	<b>Max</b> 3000.00 [Hz]	<b>Factory setting</b> 0.00 [Hz]
<b>p1334[0...n]</b>	<b>U/f control slip compensation starting frequency</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6310 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Hz]	<b>Max</b> 3000.00 [Hz]	<b>Factory setting</b> 0.00 [Hz]

<b>p1335[0...n]</b>	<b>Slip compensation, scaling</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1690, 6310 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.0 [%]
	<b>Min</b> 0.0 [%]	<b>Max</b> 600.0 [%]	
<b>p1336[0...n]</b>	<b>Slip compensation limit value</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 6310 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 250.00 [%]
	<b>Min</b> 0.00 [%]	<b>Max</b> 600.00 [%]	
<b>r1337</b>	<b>CO: Actual slip compensation</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 6310 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> - [%]
	<b>Min</b> - [%]	<b>Max</b> - [%]	
<b>p1338[0...n]</b>	<b>U/f mode resonance damping gain</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 1.00
	<b>Min</b> 0.00	<b>Max</b> 100.00	
<b>p1338[0...n]</b>	<b>U/f mode resonance damping gain</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1690, 6310 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00
	<b>Min</b> 0.00	<b>Max</b> 100.00	
<b>p1339[0...n]</b>	<b>U/f mode resonance damping filter time constant</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5300 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 20.00 [ms]
	<b>Min</b> 1.00 [ms]	<b>Max</b> 1000.00 [ms]	

<b>p1339[0...n]</b>	<b>U/f mode resonance damping filter time constant</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6310 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1.00 [ms]	<b>Max</b> 1000.00 [ms]	<b>Factory setting</b> 20.00 [ms]
<b>p1340[0...n]</b>	<b>I_max frequency controller proportional gain</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1690 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 0.500	<b>Factory setting</b> 0.000
<b>p1341[0...n]</b>	<b>I_max frequency controller integral time</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1690 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 50.000 [s]	<b>Factory setting</b> 0.300 [s]
<b>r1343</b>	<b>CO: I_max controller frequency output</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 1690 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]
<b>r1344</b>	<b>I_max controller voltage output</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_1 <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> 1690 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]
<b>p1345[0...n]</b>	<b>DC braking proportional gain</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 100000.000	<b>Factory setting</b> 0.000

<b>p1345[0...n]</b>	<b>I_max voltage controller proportional gain</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1690 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 100000.000	<b>Factory setting</b> 0.000
<b>p1346[0...n]</b>	<b>DC braking, integral time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [ms]	<b>Max</b> 50.000 [ms]	<b>Factory setting</b> 0.030 [ms]
<b>p1346[0...n]</b>	<b>I_max voltage controller integral time</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1690 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 50.000 [s]	<b>Factory setting</b> 0.030 [s]
<b>r1348</b>	<b>CO: U/f control Eco factor actual value</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 4 <b>Func. diagram:</b> 6300 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]
<b>p1349[0...n]</b>	<b>U/f mode resonance damping maximum frequency</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Hz]	<b>Max</b> 3000.00 [Hz]	<b>Factory setting</b> 3000.00 [Hz]
<b>p1349[0...n]</b>	<b>U/f mode resonance damping maximum frequency</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6310 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Hz]	<b>Max</b> 3000.00 [Hz]	<b>Factory setting</b> 0.00 [Hz]

<b>p1350[0...n]</b>	<b>Soft starting</b>		
VECTOR, VECTOR_AC	Can be changed: U, T Data type: Integer16 P-Group: U/f open-loop control Not for motor type: -  Min 0	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -  Max 1	Access level: 3 Func. diagram: 1690 Unit selection: - Expert list: 1  Factory setting 0
<b>p1351[0...n]</b>	<b>CO: Motor holding brake starting frequency</b>		
VECTOR, VECTOR_AC	Can be changed: U, T Data type: FloatingPoint32 P-Group: U/f open-loop control Not for motor type: REL  Min -300.00 [%]	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: PERCENT  Max 300.00 [%]	Access level: 3 Func. diagram: 6310 Unit selection: - Expert list: 1  Factory setting 0.00 [%]
<b>p1356[0...n]</b>	<b>CI: U/f control, angular setpoint</b>		
VECTOR, VECTOR_AC	Can be changed: U, T Data type: Unsigned32 / FloatingPoint32 P-Group: U/f open-loop control Not for motor type: -  Min -	Calculated: - Dynamic index: CDS, p0170 Units group: - Scaling: p2005  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0
<b>p1358[0...n]</b>	<b>Angular difference, symmetrizing, actual angle</b>		
VECTOR, VECTOR_AC	Can be changed: U, T Data type: FloatingPoint32 P-Group: U/f open-loop control Not for motor type: -  Min 0	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -  Max 1	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0
<b>r1359</b>	<b>CO: Angular difference</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: U/f open-loop control Not for motor type: -  Min - [°]	Calculated: - Dynamic index: - Units group: - Scaling: p2005  Max - [°]	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [°]
<b>p1360</b>	<b>Braking chopper braking resistor cold</b>		
VECTOR, VECTOR_AC	Can be changed: U, T Data type: FloatingPoint32 P-Group: U/f open-loop control Not for motor type: -  Min 0.000 [ohm]	Calculated: CALC_MOD_ALL Dynamic index: - Units group: - Scaling: -  Max 10.000 [ohm]	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0.000 [ohm]

<b>p1362[0...1]</b>	<b>Braking chopper activation threshold</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -  <b>Min</b> 0 [V]	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 1158 [V]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> [0] 0 [V] [1] 60 [V]
<b>r1363</b>	<b>CO: Braking chopper output voltage</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Vrms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_1 <b>Scaling:</b> p2001  <b>Max</b> - [Vrms]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Vrms]
<b>p1364</b>	<b>Braking chopper resistor asymmetry</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> U/f open-loop control <b>Not for motor type:</b> -  <b>Min</b> 0.00 [%]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT  <b>Max</b> 100.00 [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 25.00 [%]
<b>p1400[0...n]</b>	<b>Speed control configuration</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1590, 5490 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0000 0000 0000 0000 0000 0011 1010 0000 bin
<b>p1400[0...n]</b>	<b>Velocity control, configuration</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1590, 5490 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0000 0000 0000 0000 0000 0011 1010 0000 bin

<b>p1400[0...n]</b>	<b>Speed control configuration</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 6490 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 1000 0000 0010 0001 bin

<b>p1401[0...n]</b>	<b>Flux control configuration</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6491 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 1110 bin

<b>p1402[0...n]</b>	<b>Closed-loop current control and motor model configuration</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0100 bin

<b>p1402[0...n]</b>	<b>Closed-loop current control and motor model configuration</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0100 bin

<b>p1402[0...n]</b>	<b>Closed-loop current control and motor model configuration</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0001 bin

<b>p1404[0...n]</b>	<b>Encoderless operation changeover speed</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1590, 5060 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 210000.00 [rpm]



<b>p1404[0...n]</b>	<b>Encoderless operation changeover velocity</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> 0.00 [m/min]	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -  <b>Max</b> 1000.00 [m/min]	<b>Access level:</b> 3 <b>Func. diagram:</b> 1590, 5060 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 1000.00 [m/min]
<b>r1406.8...12</b>	<b>CO/BO: Control word speed controller</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1530, 2520 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -
<b>r1406.8...12</b>	<b>CO/BO: Control word velocity controller</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1530, 2520 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -
<b>r1406.4...15</b>	<b>CO/BO: Control word speed controller</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -
<b>r1407.0...22</b>	<b>CO/BO: Status word speed controller</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1530, 2522 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -
<b>r1407.0...22</b>	<b>CO/BO: Status word velocity controller</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1530, 2522 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>r1407.0...17</b>	<b>CO/BO: Status word speed controller</b>		
VECTOR (n/M), VECTOR_AC (n/M)	Can be changed: - Data type: Unsigned32 P-Group: Closed-loop control Not for motor type: REL	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 1530, 2522 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r1408.0...9</b>	<b>CO/BO: Status word current controller</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: - Data type: Unsigned16 P-Group: Closed-loop control Not for motor type: REL	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2530, 5040 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r1408.0...15</b>	<b>CO/BO: Status word current controller</b>		
VECTOR (n/M), VECTOR_AC (n/M)	Can be changed: - Data type: Unsigned16 P-Group: Closed-loop control Not for motor type: REL	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2530 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>p1409[0...n]</b>	<b>Speed control extended configuration</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: C1(3) Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0000 bin

<b>p1409[0...n]</b>	<b>Velocity control extended configuration</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	Can be changed: C1(3) Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0000 bin

<b>p1412[0...n]</b>	<b>TM41 increm. encoder emulation, speed setpoint filter deadline</b>		
TM41	Can be changed: U, T Data type: FloatingPoint32 P-Group: Closed-loop control Not for motor type: REL	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -	Access level: 3 Func. diagram: 9674 Unit selection: - Expert list: 1
	Min 0.000 [ms]	Max 1.000 [ms]	Factory setting 0.000 [ms]

<b>p1413[0...n]</b>	<b>Speed actual value filter activation</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0000 bin
<b>p1413[0...n]</b>	<b>Velocity actual value filter activation</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0000 bin
<b>p1414[0...n]</b>	<b>Speed setpoint filter activation</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0000 bin
<b>p1414[0...n]</b>	<b>Velocity setpoint filter activation</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0000 bin
<b>p1414[0...n]</b>	<b>TM41 incr. encoder emulation, speed setpoint filter activation</b>		
TM41	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9674 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0000 bin
<b>p1415[0...n]</b>	<b>Speed setpoint filter 1 type</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0

<b>p1415[0...n]</b>	<b>Velocity setpoint filter 1 type</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 2	

<b>p1416[0...n]</b>	<b>Speed setpoint filter 1 time constant</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [ms]
	<b>Min</b> 0.00 [ms]	<b>Max</b> 5000.00 [ms]	

<b>p1416[0...n]</b>	<b>Velocity setpoint filter 1 time constant</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [ms]
	<b>Min</b> 0.00 [ms]	<b>Max</b> 5000.00 [ms]	

<b>p1416[0...n]</b>	<b>Speed setpoint filter 1 time constant</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1700, 6030 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [ms]
	<b>Min</b> 0.00 [ms]	<b>Max</b> 5000.00 [ms]	

<b>p1417[0...n]</b>	<b>Speed setpoint filter 1 denominator natural frequency</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 2000.0 [Hz]
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	

<b>p1417[0...n]</b>	<b>Velocity setpoint filter 1 denominator natural frequency</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 2000.0 [Hz]
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	

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<b>p1417[0...n]</b>	<b>TM41 Speed setpoint filter 1 denominator natural frequency</b>		
TM41	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 9674
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 2000.0 [Hz]

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<b>p1418[0...n]</b>	<b>Speed setpoint filter 1 denominator damping</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5020
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.001	<b>Max</b> 10.000	<b>Factory setting</b> 0.700

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<b>p1418[0...n]</b>	<b>Velocity setpoint filter 1 denominator damping</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5020
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.001	<b>Max</b> 10.000	<b>Factory setting</b> 0.700

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<b>p1418[0...n]</b>	<b>TM41 Speed setpoint filter 1 denominator damping</b>		
TM41	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 9674
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.001	<b>Max</b> 1.000	<b>Factory setting</b> 0.700

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<b>p1419[0...n]</b>	<b>Speed setpoint filter 1 numerator natural frequency</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5020
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 2000.0 [Hz]

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<b>p1419[0...n]</b>	<b>Velocity setpoint filter 1 numerator natural frequency</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5020
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 2000.0 [Hz]

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<b>p1420[0...n]</b>	<b>Speed setpoint filter 1 numerator damping</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.700
	<b>Min</b> 0.000	<b>Max</b> 10.000	

<b>p1420[0...n]</b>	<b>Velocity setpoint filter 1 numerator damping</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.700
	<b>Min</b> 0.000	<b>Max</b> 10.000	

<b>p1421[0...n]</b>	<b>Speed setpoint filter 2 type</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 2	

<b>p1421[0...n]</b>	<b>Velocity setpoint filter 2 type</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 2	

<b>p1422[0...n]</b>	<b>Speed setpoint filter 2 time constant</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [ms]
	<b>Min</b> 0.00 [ms]	<b>Max</b> 5000.00 [ms]	

<b>p1422[0...n]</b>	<b>Velocity setpoint filter 2 time constant</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [ms]
	<b>Min</b> 0.00 [ms]	<b>Max</b> 5000.00 [ms]	

<b>p1423[0...n]</b>	<b>Speed setpoint filter 2 denominator natural frequency</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 2000.0 [Hz]
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	

<b>p1423[0...n]</b>	<b>Velocity setpoint filter 2 denominator natural frequency</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 2000.0 [Hz]
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	

<b>p1424[0...n]</b>	<b>Speed setpoint filter 2 denominator damping</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.700
	<b>Min</b> 0.001	<b>Max</b> 10.000	

<b>p1424[0...n]</b>	<b>Velocity setpoint filter 2 denominator damping</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.700
	<b>Min</b> 0.001	<b>Max</b> 10.000	

<b>p1425[0...n]</b>	<b>Speed setpoint filter 2 numerator natural frequency</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 2000.0 [Hz]
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	

<b>p1425[0...n]</b>	<b>Velocity setpoint filter 2 numerator natural frequency</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 2000.0 [Hz]
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	

<b>p1426[0...n]</b>	<b>Speed setpoint filter 2 numerator damping</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5020
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 10.000	<b>Factory setting</b> 0.700

<b>p1426[0...n]</b>	<b>Velocity setpoint filter 2 numerator damping</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5020
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 10.000	<b>Factory setting</b> 0.700

<b>p1427[0...n]</b>	<b>DSC symmetrizing time constant additive T_SYMM_ADD</b>		
SERVO (DSC spline, Lin), SERVO_840 (DSC spline, Lin), SERVO_AC (DSC spline, Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 3090
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 1000.00 [ms]	<b>Factory setting</b> 0.00 [ms]

<b>p1427[0...n]</b>	<b>DSC symmetrizing time constant additive T_SYMM_ADD</b>		
SERVO (DSC spline), SERVO_840 (DSC spline), SERVO_AC (DSC spline)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 3090
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 1000.00 [ms]	<b>Factory setting</b> 0.00 [ms]

<b>p1428[0...n]</b>	<b>Speed pre-control balancing dead time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5030, 5042, 5210
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0	<b>Max</b> 2.0	<b>Factory setting</b> 0.0



<b>p1428[0...n]</b>	<b>Velocity pre-control balancing dead time</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 0.0	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 2.0	<b>Access level:</b> 3 <b>Func. diagram:</b> 5030, 5042, 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.0

<b>p1428[0...n]</b>	<b>Speed pre-control balancing dead time</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 0.0	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 3.0	<b>Access level:</b> 3 <b>Func. diagram:</b> 6031 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.0

<b>p1429[0...n]</b>	<b>Speed pre-control balancing time constant</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 0.00 [ms]	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 10000.00 [ms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5030, 5042, 5210, 6031 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [ms]

<b>p1429[0...n]</b>	<b>Velocity pre-control balancing time constant</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 0.00 [ms]	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 10000.00 [ms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5030, 5042, 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [ms]

<b>p1430[0...n]</b>	<b>CI: Speed pre-control</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170  <b>Units group:</b> - <b>Scaling:</b> p2000  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 1590, 5020 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>p1430[0...n]</b>	<b>CI: Velocity pre-control</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170  <b>Units group:</b> - <b>Scaling:</b> p2000  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 1590, 5020  <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>r1431</b>	<b>CO: Speed pre-control to motor model</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [rpm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000  <b>Max</b> - [rpm]	<b>Access level:</b> 4 <b>Func. diagram:</b> 6030 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [rpm]

<b>r1432</b>	<b>CO: Speed pre-control after symmetrizing</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [rpm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000  <b>Max</b> - [rpm]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5030 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [rpm]

<b>r1432</b>	<b>CO: Velocity pre-control after symmetrizing</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [m/min]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000  <b>Max</b> - [m/min]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5030 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [m/min]

<b>p1433[0...n]</b>	<b>Speed controller reference model natural frequency</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 0.0 [Hz]	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 8000.0 [Hz]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5030, 6031 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.0 [Hz]

<b>p1433[0...n]</b>	<b>Velocity controller reference model natural frequency</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 0.0 [Hz]	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 8000.0 [Hz]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5030, 6031 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.0 [Hz]

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<b>p1434[0...n]</b>	<b>Speed controller reference model damping</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5030, 6031 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 5.000	<b>Factory setting</b> 1.000

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<b>p1434[0...n]</b>	<b>Velocity controller reference model damping</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5030, 6031 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 5.000	<b>Factory setting</b> 1.000

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<b>p1435[0...n]</b>	<b>Speed controller reference model dead time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 5030, 6031 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00	<b>Max</b> 2.00	<b>Factory setting</b> 0.00

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<b>p1435[0...n]</b>	<b>Velocity controller reference model dead time</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 5030, 6031 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00	<b>Max</b> 2.00	<b>Factory setting</b> 0.00

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<b>p1435[0...n]</b>	<b>Speed controller reference model dead time</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 5030, 6031 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00	<b>Max</b> 3.00	<b>Factory setting</b> 0.00

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<b>r1436</b>	<b>CO: Speed controller reference model speed setpoint output</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 5030, 6031 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>r1436</b>	<b>CO: Velocity controller, reference model velocity_setpoint output</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 5030, 6031 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]

<b>p1437[0...n]</b>	<b>CI: Speed controller, reference model I component input</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 6031 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1436[0]

<b>r1438</b>	<b>CO: Speed controller, speed setpoint</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 1590, 1700, 5030, 5040, 5042, 5210, 5300, 5620, 6031, 6040 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>r1438</b>	<b>CO: Velocity controller, velocity setpoint</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 1550, 1590, 5030, 5040, 5042, 5210, 5300, 5620 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]

<b>r1439</b>	<b>Speed setpoint, I component</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 5030, 5040, 6031 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>r1439</b>	<b>Velocity setpoint, I component</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [m/min]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 4_1 <b>Scaling:</b> p2000  <b>Max</b> - [m/min]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5030, 5040, 6031 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [m/min]
<b>p1440[0...n]</b>	<b>CI: Speed controller speed actual value</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6040 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 63[0]
<b>p1441[0...n]</b>	<b>Actual speed smoothing time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 0.00 [ms]	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 50.00 [ms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 4710, 4715 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [ms]
<b>p1441[0...n]</b>	<b>Actual velocity smoothing time</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 0.00 [ms]	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 50.00 [ms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 4710, 4715 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [ms]
<b>p1441[0...n]</b>	<b>Actual speed smoothing time</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 0.00 [ms]	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 1000.00 [ms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 4710, 4715 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [ms]
<b>p1442[0...n]</b>	<b>Speed controller speed actual value smoothing time</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 0.00 [ms]	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 32000.00 [ms]	<b>Access level:</b> 2 <b>Func. diagram:</b> 1700, 6040 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 4.00 [ms]

<b>r1443</b>	<b>CO: Speed controller speed actual value at actual value input</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 6040 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>r1444</b>	<b>Speed controller, speed setpoint steady-state (static)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 5030 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>r1444</b>	<b>Velocity controller, velocity setpoint, total</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 5030 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]

<b>r1445</b>	<b>CO: Actual speed smoothed</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 5210 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>r1445</b>	<b>CO: Actual velocity smoothed</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 5210 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]

<b>r1445</b>	<b>CO: Actual speed smoothed</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 4 <b>Func. diagram:</b> 6040 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>p1446[0...n]</b>	<b>Speed actual value filter type</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 2	<b>Factory setting</b> 2
<b>p1446[0...n]</b>	<b>Velocity actual value filter type</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 2	<b>Factory setting</b> 2
<b>p1447[0...n]</b>	<b>Speed actual value filter denominator natural frequency</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 2000.0 [Hz]
<b>p1447[0...n]</b>	<b>Velocity actual value filter denominator natural frequency</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 2000.0 [Hz]
<b>p1448[0...n]</b>	<b>Speed actual value filter denominator damping</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.001	<b>Max</b> 10.000	<b>Factory setting</b> 0.700
<b>p1448[0...n]</b>	<b>Velocity actual value filter denominator damping</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.001	<b>Max</b> 10.000	<b>Factory setting</b> 0.700

<b>p1449[0...n]</b>	<b>Speed actual value filter numerator natural frequency</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5040, 5210
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 2000.0 [Hz]

<b>p1449[0...n]</b>	<b>Velocity actual value filter numerator natural frequency</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5040, 5210
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 2000.0 [Hz]

<b>p1450[0...n]</b>	<b>Speed actual value filter numerator damping</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5040, 5210
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 10.000	<b>Factory setting</b> 0.700

<b>p1450[0...n]</b>	<b>Velocity actual value filter numerator damping</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5040, 5210
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 10.000	<b>Factory setting</b> 0.700

<b>p1451[0...n]</b>	<b>Speed actual value smoothing time sensorless</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 100 [ms]	<b>Factory setting</b> 0 [ms]

<b>p1451[0...n]</b>	<b>Velocity actual value smoothing time sensorless</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 100 [ms]	<b>Factory setting</b> 0 [ms]



<b>p1451[0...n]</b>	<b>Motor model speed actual value smoothing time SLVC</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 4 [ms]
	<b>Min</b> 0 [ms]	<b>Max</b> 100 [ms]	
<b>p1452[0...n]</b>	<b>Speed controller speed actual value smoothing time (SLVC)</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1700, 6040 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 10.00 [ms]
	<b>Min</b> 0.00 [ms]	<b>Max</b> 32000.00 [ms]	
<b>r1454</b>	<b>CO: Speed controller system deviation I component</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> - [rpm]
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	
<b>r1454</b>	<b>CO: Velocity controller system deviation I component</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> - [m/min]
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	
<b>r1454</b>	<b>CO: Speed controller system deviation I component</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 6040 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> - [rpm]
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	
<b>p1455[0...n]</b>	<b>CI: Speed controller P gain adaptation signal</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 5050 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> -	<b>Max</b> -	

<b>p1455[0...n]</b>	<b>CI: Velocity controller, P gain adaptation signal</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 5050
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p1455[0...n]</b>	<b>CI: Speed controller P gain adaptation signal</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 6050
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p1456[0...n]</b>	<b>Speed controller P gain adaptation lower starting point</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5050
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 400.00 [%]	<b>Factory setting</b> 0.00 [%]

<b>p1456[0...n]</b>	<b>Velocity controller P gain adaptation, lower starting point</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5050
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 400.00 [%]	<b>Factory setting</b> 0.00 [%]

<b>p1456[0...n]</b>	<b>Speed controller P gain adaptation lower starting point</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 6050
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 400.00 [%]	<b>Factory setting</b> 0.00 [%]

<b>p1457[0...n]</b>	<b>Speed controller P gain adaptation upper starting point</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5050
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 400.00 [%]	<b>Factory setting</b> 0.00 [%]

<b>p1457[0...n]</b>	<b>Velocity controller P gain adaptation upper starting point</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 400.00 [%]	<b>Factory setting</b> 0.00 [%]
<b>p1457[0...n]</b>	<b>Speed controller P gain adaptation upper starting point</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 400.00 [%]	<b>Factory setting</b> 0.00 [%]
<b>p1458[0...n]</b>	<b>Adaptation factor, lower</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 200000.0 [%]	<b>Factory setting</b> 100.0 [%]
<b>p1458[0...n]</b>	<b>Adaptation factor, lower</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 200000.0 [%]	<b>Factory setting</b> 100.0 [%]
<b>p1459[0...n]</b>	<b>Adaptation factor, upper</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 200000.0 [%]	<b>Factory setting</b> 100.0 [%]
<b>p1459[0...n]</b>	<b>Adaptation factor, upper</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 200000.0 [%]	<b>Factory setting</b> 100.0 [%]

<b>p1460[0...n]</b>	<b>Speed controller P gain adaptation speed, lower</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_CON	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5040, 5042
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 17_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.000 [Nms/rad]	<b>Max</b> 999999.000 [Nms/rad]	<b>Factory setting</b> 0.300 [Nms/rad]

<b>p1460[0...n]</b>	<b>Velocity controller, P gain adaptation velocity, lower</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_CON	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5040, 5042
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 24_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.000 [Ns/m]	<b>Max</b> 999999.000 [Ns/m]	<b>Factory setting</b> 10.000 [Ns/m]

<b>p1460[0...n]</b>	<b>Speed controller P gain adaptation speed, lower</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_CON	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 1700, 6040
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 999999.000	<b>Factory setting</b> 0.300

<b>p1461[0...n]</b>	<b>Speed controller Kp adaptation speed, upper scaling</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_CON	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5050
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 200000.0 [%]	<b>Factory setting</b> 100.0 [%]

<b>p1461[0...n]</b>	<b>Velocity controller Kp adaptation velocity, upper scaling</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_CON	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5050
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 200000.0 [%]	<b>Factory setting</b> 100.0 [%]

<b>p1461[0...n]</b>	<b>Speed controller Kp adaptation speed, upper scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_CON	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 6050
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 200000.0 [%]	<b>Factory setting</b> 100.0 [%]

<b>p1462[0...n]</b>	<b>Speed controller integral time adaptation speed lower</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 0.00 [ms]	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 100000.00 [ms]	<b>Access level:</b> 2 <b>Func. diagram:</b> 1700, 5040, 5042, 6040 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 20.00 [ms]
<b>p1462[0...n]</b>	<b>Velocity contr. integral act. time adaptation velocity lower</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 0.00 [ms]	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 100000.00 [ms]	<b>Access level:</b> 2 <b>Func. diagram:</b> 5040, 5042 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 20.00 [ms]
<b>p1462[0...n]</b>	<b>Speed controller integral time adaptation speed lower</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 0.00 [ms]	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 100000.00 [ms]	<b>Access level:</b> 2 <b>Func. diagram:</b> 1700, 5040, 5042, 6040 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 20.00 [ms]
<b>p1463[0...n]</b>	<b>Speed controller Tn adaptation speed, upper scaling</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 0.0 [%]	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 200000.0 [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5050 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 100.0 [%]
<b>p1463[0...n]</b>	<b>Velocity controller Tn adaptation velocity, upper scaling</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 0.0 [%]	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 200000.0 [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5050 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 100.0 [%]

<b>p1463[0...n]</b>	<b>Speed controller Tn adaptation speed, upper scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6050 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 100.0 [%]
	<b>Min</b> 0.0 [%]	<b>Max</b> 200000.0 [%]	

<b>p1464[0...n]</b>	<b>Speed controller adaptation speed, lower</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [rpm]
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	

<b>p1464[0...n]</b>	<b>Velocity controller adaptation velocity, lower</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [m/min]
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 1000.00 [m/min]	

<b>p1464[0...n]</b>	<b>Speed controller adaptation speed, lower</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [rpm]
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	

<b>p1465[0...n]</b>	<b>Speed controller adaptation speed, upper</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 210000.00 [rpm]
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	

<b>p1465[0...n]</b>	<b>Velocity controller adaptation velocity, upper</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 1000.00 [m/min]
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 1000.00 [m/min]	

<b>p1465[0...n]</b>	<b>Speed controller adaptation speed, upper</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6050 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 210000.00 [rpm]
<b>p1466[0...n]</b>	<b>CI: Speed controller P-gain scaling</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 5050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1
<b>p1466[0...n]</b>	<b>CI: Velocity controller P gain scaling</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 5050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1
<b>p1466[0...n]</b>	<b>CI: Speed controller P-gain scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 6050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1
<b>r1468</b>	<b>Speed controller P-gain effective</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 17_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 5042, 5210 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Nms/rad]	<b>Max</b> - [Nms/rad]	<b>Factory setting</b> - [Nms/rad]

<b>r1468</b>	<b>Velocity controller P gain effective</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [Ns/m]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 24_2 <b>Scaling:</b> -  <b>Max</b> - [Ns/m]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 5042, 5210 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Ns/m]

<b>r1468</b>	<b>CO: Speed controller P-gain effective</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6040 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>r1469</b>	<b>Speed controller integral time effective</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [ms]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [ms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 5042, 6040 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [ms]

<b>r1469</b>	<b>Velocity controller integral time effective</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [ms]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [ms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 5042 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [ms]

<b>p1470[0...n]</b>	<b>Speed controller encoderless operation P-gain</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 0.000 [Nms/rad]	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180  <b>Units group:</b> 17_1 <b>Scaling:</b> -  <b>Max</b> 999999.000 [Nms/rad]	<b>Access level:</b> 2 <b>Func. diagram:</b> 5210 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 0.300 [Nms/rad]



<b>p1470[0...n]</b>	<b>Velocity controller encoderless operation P-gain</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 24_2 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 5210 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [Ns/m]	<b>Max</b> 999999.000 [Ns/m]	<b>Factory setting</b> 10.000 [Ns/m]
<b>p1470[0...n]</b>	<b>Speed controller encoderless operation P-gain</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 6040, 6050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 999999.000	<b>Factory setting</b> 0.300
<b>p1472[0...n]</b>	<b>Speed controller encoderless operation integral time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [ms]	<b>Max</b> 100000.0 [ms]	<b>Factory setting</b> 20.0 [ms]
<b>p1472[0...n]</b>	<b>Velocity controller encoderless operation integral time</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [ms]	<b>Max</b> 100000.0 [ms]	<b>Factory setting</b> 20.0 [ms]
<b>p1472[0...n]</b>	<b>Speed controller encoderless operation integral time</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 6040, 6050 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [ms]	<b>Max</b> 100000.0 [ms]	<b>Factory setting</b> 20.0 [ms]
<b>p1475[0...n]</b>	<b>CI: Speed controller torque setting value for motor holding brake</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2003	<b>Access level:</b> 3 <b>Func. diagram:</b> 6040 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p1476[0...n]</b>	<b>BI: Speed controller hold integrator</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> - <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2520, 5040, 5042, 5210, 6040 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0

<b>p1476[0...n]</b>	<b>BI: Velocity controller hold integrator</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> - <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2520, 5040, 5042, 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0

<b>p1477[0...n]</b>	<b>BI: Speed controller set integrator value</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> - <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2520, 5040, 5042, 5210, 6040 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0

<b>p1477[0...n]</b>	<b>BI: Velocity controller set integrator value</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> - <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2520, 5040, 5042, 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0

<b>p1478[0...n]</b>	<b>CI: Speed controller integrator setting value</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2003 <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 5042, 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0

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<b>p1478[0...n]</b>	<b>CI: Velocity controller integrator value</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 5040, 5042, 5210
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p1478[0...n]</b>	<b>CI: Speed controller integrator setting value</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 6040
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p1479[0...n]</b>	<b>CI: Speed controller integrator setting value scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 6040
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1

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<b>r1480</b>	<b>CO: Speed controller PI torque output</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1590, 5040, 5042, 5060, 5210, 6060
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 7_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b> - [Nm]	<b>Max</b> - [Nm]	<b>Factory setting</b> - [Nm]

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<b>r1480</b>	<b>CO: Velocity controller PI force output</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1590, 5040, 5042, 5060, 5210
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 8_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b> - [N]	<b>Max</b> - [N]	<b>Factory setting</b> - [N]

<b>r1481</b>	<b>CO: Speed controller P torque output</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [Nm]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 7_1 <b>Scaling:</b> p2003  <b>Max</b> - [Nm]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 5042, 5210, 6040 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Nm]

<b>r1481</b>	<b>CO: Velocity controller P force output</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [N]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 8_1 <b>Scaling:</b> p2003  <b>Max</b> - [N]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 5042, 5210 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [N]

<b>r1482</b>	<b>CO: Speed controller I torque output</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [Nm]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 7_1 <b>Scaling:</b> p2003  <b>Max</b> - [Nm]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 5042, 5210, 6030, 6040 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Nm]

<b>r1482</b>	<b>CO: Velocity controller I force output</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [N]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 8_1 <b>Scaling:</b> p2003  <b>Max</b> - [N]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5040, 5042, 5210 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [N]

<b>p1486[0...n]</b>	<b>CI: Droop compensation torque</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2003  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6030 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>p1487[0...n]</b>	<b>Droop compensation torque scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 6030 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 100.0 [%]
	<b>Min</b> -2000.0 [%]	<b>Max</b> 2000.0 [%]	
<b>p1488[0...n]</b>	<b>Droop input source</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6030 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 3	
<b>p1489[0...n]</b>	<b>Droop feedback scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6030 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.050
	<b>Min</b> 0.000	<b>Max</b> 0.500	
<b>r1490</b>	<b>CO: Droop feedback speed reduction</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 6030 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> - [rpm]
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	
<b>p1492[0...n]</b>	<b>BI: Droop feedback enable</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2520, 6030 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> -	<b>Max</b> -	
<b>r1493</b>	<b>CO: Moment of inertia, total</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 25_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5042, 5210 <b>Unit selection:</b> p0100 <b>Expert list:</b> 1 <b>Factory setting:</b> - [kgm <sup>2</sup> ]
	<b>Min</b> - [kgm <sup>2</sup> ]	<b>Max</b> - [kgm <sup>2</sup> ]	

<b>r1493</b>	<b>CO: Load mass</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 27_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5042, 5210 <b>Unit selection:</b> p0100 <b>Expert list:</b> 1
	<b>Min</b> - [kg]	<b>Max</b> - [kg]	<b>Factory setting</b> - [kg]

<b>r1493</b>	<b>CO: Moment of inertia, total</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 25_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6031 <b>Unit selection:</b> p0100 <b>Expert list:</b> 1
	<b>Min</b> - [kgm <sup>2</sup> ]	<b>Max</b> - [kgm <sup>2</sup> ]	<b>Factory setting</b> - [kgm <sup>2</sup> ]

<b>p1494[0...n]</b>	<b>Speed controller integrator feedback time constant</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180  <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 5040, 5042, 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 1000.00 [ms]	<b>Factory setting</b> 0.00 [ms]

<b>p1494[0...n]</b>	<b>Velocity controller integrator feedback time constant</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180  <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 5040, 5042, 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 1000.00 [ms]	<b>Factory setting</b> 0.00 [ms]

<b>p1495[0...n]</b>	<b>CI: Acceleration pre-control</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2007	<b>Access level:</b> 3 <b>Func. diagram:</b> 6031 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p1496[0...n]</b>	<b>Acceleration pre-control scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1700, 6031 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 10000.0 [%]	<b>Factory setting</b> 0.0 [%]
<b>p1497[0...n]</b>	<b>CI: Moment of inertia, scaling</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 5042, 5210, 6030, 6031 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1
<b>p1497[0...n]</b>	<b>CI: Motor weight scaling</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 5042, 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1
<b>p1497[0...n]</b>	<b>CI: Moment of inertia, scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 5042, 5210, 6030, 6031 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1
<b>p1498[0...n]</b>	<b>Load moment of inertia</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 25_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5042, 5210 <b>Unit selection:</b> p0100 <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [kgm <sup>2</sup> ]	<b>Max</b> 100000.00000 [kgm <sup>2</sup> ]	<b>Factory setting</b> 0.00000 [kgm <sup>2</sup> ]

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<b>p1498[0...n]</b>	<b>Load mass</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 27_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5042, 5210 <b>Unit selection:</b> p0100 <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [kg]	<b>Max</b> 10000.00000 [kg]	<b>Factory setting</b> 0.00000 [kg]

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<b>p1499[0...n]</b>	<b>Accelerating for torque control, scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6030 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 400.0 [%]	<b>Factory setting</b> 100.0 [%]

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<b>p1500[0...n]</b>	<b>Macro Connector Inputs (CI) for torque setpoints</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 999999	<b>Factory setting</b> 0

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<b>p1500[0...n]</b>	<b>Macro Connector Inputs (CI) for force setpoints</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 999999	<b>Factory setting</b> 0

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<b>p1501[0...n]</b>	<b>BI: Change over between closed-loop speed/torque control</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1700, 2520, 5060, 6060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p1501[0...n]</b>	<b>BI: Change over velocity/force control</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2520, 5060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0



<b>p1502[0...n]</b>	<b>BI: Freeze moment of inertia estimator</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p1503[0...n]</b>	<b>CI: Torque setpoint</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2003	<b>Access level:</b> 3 <b>Func. diagram:</b> 1700, 6060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>r1508</b>	<b>CO: Torque setpoint before supplementary torque</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 7_1 <b>Scaling:</b> p2003	<b>Access level:</b> 2 <b>Func. diagram:</b> 6030, 6060, 6722 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Nm]	<b>Max</b> - [Nm]	<b>Factory setting</b> - [Nm]
<b>r1509</b>	<b>CO: Torque setpoint before torque limiting</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 7_1 <b>Scaling:</b> p2003	<b>Access level:</b> 3 <b>Func. diagram:</b> 1590, 5060, 5610 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Nm]	<b>Max</b> - [Nm]	<b>Factory setting</b> - [Nm]
<b>r1509</b>	<b>CO: Force setpoint before force limiting</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 8_1 <b>Scaling:</b> p2003	<b>Access level:</b> 3 <b>Func. diagram:</b> 1590, 5060, 5610 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [N]	<b>Max</b> - [N]	<b>Factory setting</b> - [N]

<b>p1511[0...n]</b>	<b>CI: Supplementary torque 1</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2003	<b>Access level:</b> 3 <b>Func. diagram:</b> 5060, 6060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p1511[0...n]</b>	<b>CI: Supplementary force 1</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2003	<b>Access level:</b> 3 <b>Func. diagram:</b> 5060, 6060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p1512[0...n]</b>	<b>CI: Supplementary torque 1 scaling</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 5060, 6060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p1512[0...n]</b>	<b>CI: Supplementary force 1 scaling</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 5060, 6060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p1513[0...n]</b>	<b>CI: Supplementary torque 2</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2003	<b>Access level:</b> 3 <b>Func. diagram:</b> 5060, 6060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p1513[0...n]</b>	<b>CI: Supplementary force 2</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2003	<b>Access level:</b> 3 <b>Func. diagram:</b> 5060, 6060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p1514[0...n]</b>	<b>Supplementary torque 2 scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 1700, 6060 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 100.0 [%]
	<b>Min</b> -2000.0 [%]	<b>Max</b> 2000.0 [%]	
<b>r1515</b>	<b>Supplementary torque total</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 7_1 <b>Scaling:</b> p2003	<b>Access level:</b> 2 <b>Func. diagram:</b> 5040, 5060 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> - [Nm]
	<b>Min</b> - [Nm]	<b>Max</b> - [Nm]	
<b>r1515</b>	<b>Supplementary force total</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 8_1 <b>Scaling:</b> p2003	<b>Access level:</b> 2 <b>Func. diagram:</b> 5040, 5060 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> - [N]
	<b>Min</b> - [N]	<b>Max</b> - [N]	
<b>r1516</b>	<b>CO: Supplementary torque and acceleration torque</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 7_1 <b>Scaling:</b> p2003	<b>Access level:</b> 2 <b>Func. diagram:</b> 6060 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> - [Nm]
	<b>Min</b> - [Nm]	<b>Max</b> - [Nm]	
<b>p1517[0...n]</b>	<b>Accelerating torque smoothing time constant</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5042, 5210, 6060 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 4.00 [ms]
	<b>Min</b> 0.00 [ms]	<b>Max</b> 100.00 [ms]	
<b>p1517[0...n]</b>	<b>Acceleration force smoothing time constant</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5042, 5210 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 4.00 [ms]
	<b>Min</b> 0.00 [ms]	<b>Max</b> 100.00 [ms]	

<b>r1518[0...1]</b>	<b>CO: Accelerating torque</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [Nm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 7_1 <b>Scaling:</b> p2003  <b>Max</b> - [Nm]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5042, 5210 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Nm]
<b>r1518[0...1]</b>	<b>CO: Accelerating force</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [N]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 8_1 <b>Scaling:</b> p2003  <b>Max</b> - [N]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5042, 5210 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [N]
<b>r1518[0...1]</b>	<b>CO: Accelerating torque</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [Nm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 7_1 <b>Scaling:</b> p2003  <b>Max</b> - [Nm]	<b>Access level:</b> 3 <b>Func. diagram:</b> 6060 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Nm]
<b>p1520[0...n]</b>	<b>CO: Torque limit upper/motoring</b>		
SERVO_840	<b>Can be changed:</b> U, T  <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 0.00 [Nm]	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> p2003  <b>Max</b> 10000000.00 [Nm]	<b>Access level:</b> 2 <b>Func. diagram:</b> 5620, 5630 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [Nm]
<b>p1520[0...n]</b>	<b>CO: Force limit upper/motoring</b>		
SERVO_840 (Lin)	<b>Can be changed:</b> U, T  <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 0.00 [N]	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 8_1 <b>Scaling:</b> p2003  <b>Max</b> 10000000.00 [N]	<b>Access level:</b> 2 <b>Func. diagram:</b> 5620, 5630 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [N]

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<b>p1520[0...n]</b>	<b>CO: Torque limit upper/motoring</b>		
SERVO, SERVO_AC	Can be changed: U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5620, 5630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 7_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b> -1000000.00 [Nm]	<b>Max</b> 20000000.00 [Nm]	<b>Factory setting</b> 0.00 [Nm]

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<b>p1520[0...n]</b>	<b>CO: Force limit upper/motoring</b>		
SERVO (Lin), SERVO_AC (Lin)	Can be changed: U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5620, 5630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 8_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b> -1000000.00 [N]	<b>Max</b> 20000000.00 [N]	<b>Factory setting</b> 0.00 [N]

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<b>p1520[0...n]</b>	<b>CO: Torque limit upper</b>		
VECTOR (n/M), VECTOR_AC (n/M)	Can be changed: U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 1700, 6630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 7_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b> -1000000.00 [Nm]	<b>Max</b> 20000000.00 [Nm]	<b>Factory setting</b> 0.00 [Nm]

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<b>p1521[0...n]</b>	<b>CO: Torque limit lower/regenerative</b>		
SERVO_840	Can be changed: U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5620, 5630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 7_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b> -1000000.00 [Nm]	<b>Max</b> 0.00 [Nm]	<b>Factory setting</b> 0.00 [Nm]

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<b>p1521[0...n]</b>	<b>CO: Force limit lower/regenerative</b>		
SERVO_840 (Lin)	Can be changed: U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5620, 5630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 8_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b> -1000000.00 [N]	<b>Max</b> 0.00 [N]	<b>Factory setting</b> 0.00 [N]

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<b>p1521[0...n]</b>	<b>CO: Torque limit lower/regenerative</b>		
SERVO, SERVO_AC	Can be changed: U, T	Calculated: CALC_MOD_LIM_REF	Access level: 2
	Data type: FloatingPoint32	Dynamic index: DDS, p0180	Func. diagram: 5620, 5630
	P-Group: Closed-loop control	Units group: 7_1	Unit selection: p0505
	Not for motor type: REL	Scaling: p2003	Expert list: 1
	Min -20000000.00 [Nm]	Max 1000000.00 [Nm]	Factory setting 0.00 [Nm]

<b>p1521[0...n]</b>	<b>CO: Force limit lower/regenerative</b>		
SERVO (Lin), SERVO_AC (Lin)	Can be changed: U, T	Calculated: CALC_MOD_LIM_REF	Access level: 2
	Data type: FloatingPoint32	Dynamic index: DDS, p0180	Func. diagram: 5620, 5630
	P-Group: Closed-loop control	Units group: 8_1	Unit selection: p0505
	Not for motor type: REL	Scaling: p2003	Expert list: 1
	Min -20000000.00 [N]	Max 1000000.00 [N]	Factory setting 0.00 [N]

<b>p1521[0...n]</b>	<b>CO: Torque limit lower</b>		
VECTOR (n/M), VECTOR_AC (n/M)	Can be changed: U, T	Calculated: CALC_MOD_LIM_REF	Access level: 2
	Data type: FloatingPoint32	Dynamic index: DDS, p0180	Func. diagram: 5620, 5630
	P-Group: Closed-loop control	Units group: 7_1	Unit selection: p0505
	Not for motor type: REL	Scaling: p2003	Expert list: 1
	Min -20000000.00 [Nm]	Max 1000000.00 [Nm]	Factory setting 0.00 [Nm]

<b>p1522[0...n]</b>	<b>CI: Torque limit upper/motoring</b>		
SERVO_840	Can be changed: T	Calculated: -	Access level: 3
	Data type: Unsigned32 / FloatingPoint32	Dynamic index: CDS, p0170	Func. diagram: 1610, 5620, 5630, 6630
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Not for motor type: REL	Scaling: p2003	Expert list: 1
	Min -	Max -	Factory setting 2902[5]

<b>p1522[0...n]</b>	<b>CI: Force limit upper/motoring</b>		
SERVO_840 (Lin)	Can be changed: T	Calculated: -	Access level: 3
	Data type: Unsigned32 / FloatingPoint32	Dynamic index: CDS, p0170	Func. diagram: 1610, 5620, 5630, 6630
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Not for motor type: REL	Scaling: p2003	Expert list: 1
	Min -	Max -	Factory setting 2902[5]

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<b>p1522[0...n]</b>	<b>CI: Torque limit upper/motoring</b>		
SERVO, SERVO_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 1610, 5620, 5630, 6630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1520[0]

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<b>p1522[0...n]</b>	<b>CI: Force limit upper/motoring</b>		
SERVO (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 1610, 5620, 5630, 6630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1520[0]

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<b>p1522[0...n]</b>	<b>CI: Torque limit upper</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 6630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1520[0]

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<b>p1523[0...n]</b>	<b>CI: Torque limit lower/regenerative</b>		
SERVO_840	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 1610, 5620, 5630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	2902[12]

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<b>p1523[0...n]</b>	<b>CI: Force limit lower/regenerative</b>		
SERVO_840 (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 1610, 5620, 5630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	2902[12]

<b>p1523[0...n]</b>	<b>CI: Torque limit lower/regenerative</b>		
SERVO, SERVO_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 1610, 5620, 5630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1521[0]

<b>p1523[0...n]</b>	<b>CI: Force limit lower/regenerative</b>		
SERVO (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 1610, 5620, 5630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1521[0]

<b>p1523[0...n]</b>	<b>CI: Torque limit lower</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 1700, 6630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1521[0]

<b>p1524[0...n]</b>	<b>CO: Torque limit upper/motoring scaling</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5620, 5630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-2000.0 [%]	2000.0 [%]	100.0 [%]

<b>p1524[0...n]</b>	<b>CO: Force limit upper/motoring scaling</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5620, 5630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-2000.0 [%]	2000.0 [%]	100.0 [%]



<b>p1524[0...n]</b>	<b>CO: Torque limit upper scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 6630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2000.0 [%]	<b>Max</b> 2000.0 [%]	<b>Factory setting</b> 100.0 [%]
<b>p1525[0...n]</b>	<b>CO: Torque limit lower/regenerative scaling</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 5620, 5630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2000.0 [%]	<b>Max</b> 2000.0 [%]	<b>Factory setting</b> 100.0 [%]
<b>p1525[0...n]</b>	<b>CO: Force limit lower/regenerative scaling</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 5620, 5630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2000.0 [%]	<b>Max</b> 2000.0 [%]	<b>Factory setting</b> 100.0 [%]
<b>p1525[0...n]</b>	<b>CO: Torque limit lower scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 6630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2000.0 [%]	<b>Max</b> 2000.0 [%]	<b>Factory setting</b> 100.0 [%]
<b>r1526</b>	<b>CO: Torque limit upper/motoring without offset</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 7_1 <b>Scaling:</b> p2003	<b>Access level:</b> 3 <b>Func. diagram:</b> 5620, 5630 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Nm]	<b>Max</b> - [Nm]	<b>Factory setting</b> - [Nm]
<b>r1526</b>	<b>CO: Force limit upper/motoring without offset</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 8_1 <b>Scaling:</b> p2003	<b>Access level:</b> 3 <b>Func. diagram:</b> 5620, 5630 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [N]	<b>Max</b> - [N]	<b>Factory setting</b> - [N]

<b>r1526</b>	<b>CO: Torque limit upper without offset</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6060, 6630, 6640
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 7_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b> - [Nm]	<b>Max</b> - [Nm]	<b>Factory setting</b> - [Nm]

<b>r1527</b>	<b>CO: Torque limit lower/regenerative without offset</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 5620, 5630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 7_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b> - [Nm]	<b>Max</b> - [Nm]	<b>Factory setting</b> - [Nm]

<b>r1527</b>	<b>CO: Force limit lower/regenerative without offset</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 5620, 5630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 8_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b> - [N]	<b>Max</b> - [N]	<b>Factory setting</b> - [N]

<b>r1527</b>	<b>CO: Torque limit lower without offset</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6060, 6630, 6640
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 7_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b> - [Nm]	<b>Max</b> - [Nm]	<b>Factory setting</b> - [Nm]

<b>p1528[0...n]</b>	<b>CI: Torque limit upper/motoring scaling</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 1610, 3617, 5620, 5630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1524[0]

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<b>p1528[0...n]</b>	<b>CI: Force limit upper/motoring scaling</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 1610, 3617, 5620, 5630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1524[0]

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<b>p1528[0...n]</b>	<b>CI: Torque limit upper scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 6630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1524[0]

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<b>p1529[0...n]</b>	<b>CI: Torque limit lower/regenerative scaling</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 1610, 3617, 5620, 5630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1525[0]

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<b>p1529[0...n]</b>	<b>CI: Force limit lower/regenerative scaling</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 1610, 3617, 5620, 5630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1525[0]

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<b>p1529[0...n]</b>	<b>CI: Torque limit lower scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 6630
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1525[0]

<b>p1530[0...n]</b>	<b>Power limit motoring</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5640
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 14_5	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [kW]	<b>Max</b> 100000.00 [kW]	<b>Factory setting</b> 0.00 [kW]

<b>p1530[0...n]</b>	<b>Power limit motoring</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5640
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 14_8	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [kW]	<b>Max</b> 100000.00 [kW]	<b>Factory setting</b> 0.00 [kW]

<b>p1530[0...n]</b>	<b>Power limit motoring</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 6640
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 14_5	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [kW]	<b>Max</b> 100000.00 [kW]	<b>Factory setting</b> 0.00 [kW]

<b>p1531[0...n]</b>	<b>Power limit regenerative</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5640
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 14_5	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -100000.00 [kW]	<b>Max</b> -0.01 [kW]	<b>Factory setting</b> -0.01 [kW]

<b>p1531[0...n]</b>	<b>Power limit regenerative</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5640
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 14_8	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -100000.00 [kW]	<b>Max</b> -0.01 [kW]	<b>Factory setting</b> -0.01 [kW]

<b>p1531[0...n]</b>	<b>Power limit regenerative</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 6640
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 14_5	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -100000.00 [kW]	<b>Max</b> -0.01 [kW]	<b>Factory setting</b> -0.01 [kW]
<b>p1532[0...n]</b>	<b>CO: Torque limit offset</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5620, 5630, 5650, 7010, 8012
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 7_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b> -100000.00 [Nm]	<b>Max</b> 100000.00 [Nm]	<b>Factory setting</b> 0.00 [Nm]
<b>p1532[0...n]</b>	<b>CO: Force offset, force limit</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5620, 5630, 5650, 7010, 8012
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 8_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b> -100000.00 [N]	<b>Max</b> 100000.00 [N]	<b>Factory setting</b> 0.00 [N]
<b>r1533</b>	<b>Current limit torque-generating total</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 5640, 5722, 6640
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2002	<b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]
<b>r1533</b>	<b>Current limit force-generating total</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 5640, 5722, 6640
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2002	<b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

<b>r1534</b>	<b>CO: Torque limit upper total</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1610, 5620, 5630, 5640
	<b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Units group:</b> 7_1 <b>Scaling:</b> p2003	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Nm]	<b>Max</b> - [Nm]	<b>Factory setting</b> - [Nm]
<b>r1534</b>	<b>CO: Force limit upper total</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1610, 5620, 5630, 5640
	<b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Units group:</b> 8_1 <b>Scaling:</b> p2003	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [N]	<b>Max</b> - [N]	<b>Factory setting</b> - [N]
<b>r1535</b>	<b>CO: Torque limit lower total</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1610, 5620, 5630, 5640
	<b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Units group:</b> 7_1 <b>Scaling:</b> p2003	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Nm]	<b>Max</b> - [Nm]	<b>Factory setting</b> - [Nm]
<b>r1535</b>	<b>CO: Force limit lower total</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1610, 5620, 5630, 5640
	<b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Units group:</b> 8_1 <b>Scaling:</b> p2003	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [N]	<b>Max</b> - [N]	<b>Factory setting</b> - [N]
<b>r1536[0...1]</b>	<b>Current limit maximum torque-generating current</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6640, 6710
	<b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Units group:</b> 6_2 <b>Scaling:</b> p2002	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

<b>r1537[0...1]</b>	<b>Current limit minimum torque-generating current</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_2 <b>Scaling:</b> p2002  <b>Max</b> - [Arms]	<b>Access level:</b> 4 <b>Func. diagram:</b> 6640, 6710 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]
<b>r1538</b>	<b>CO: Upper effective torque limit</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [Nm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 7_1 <b>Scaling:</b> p2003  <b>Max</b> - [Nm]	<b>Access level:</b> 2 <b>Func. diagram:</b> 1610, 1700, 5610, 5650, 6060, 6640 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Nm]
<b>r1538</b>	<b>CO: Upper force limit effective</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [N]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 8_1 <b>Scaling:</b> p2003  <b>Max</b> - [N]	<b>Access level:</b> 2 <b>Func. diagram:</b> 1610, 5610, 5650 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [N]
<b>r1539</b>	<b>CO: Lower effective torque limit</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [Nm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 7_1 <b>Scaling:</b> p2003  <b>Max</b> - [Nm]	<b>Access level:</b> 2 <b>Func. diagram:</b> 1610, 1700, 5610, 5650, 6060, 6640 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Nm]
<b>r1539</b>	<b>CO: Lower force limit effective</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [N]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 8_1 <b>Scaling:</b> p2003  <b>Max</b> - [N]	<b>Access level:</b> 2 <b>Func. diagram:</b> 1610, 5610, 5650 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [N]

<b>p1540[0...n]</b>	<b>CI: Torque limit speed controller upper scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 1700, 6060
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1

<b>p1541[0...n]</b>	<b>CI: Torque limit. speed controller lower scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 1700, 6060
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1

<b>p1542[0...n]</b>	<b>CI: Travel to fixed stop torque reduction</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 5610
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>p1542[0...n]</b>	<b>CI: Travel to fixed stop force reduction</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 5610
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>r1543</b>	<b>CO: Travel to fixed stop torque scaling</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 5610
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	- [%]	- [%]	- [%]

<b>r1543</b>	<b>CO: Travel to fixed stop force scaling</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 5610
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	- [%]	- [%]	- [%]



<b>p1544</b>	<b>Travel to fixed stop evaluation torque reduction</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5610 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [%]	<b>Max</b> 65535 [%]	<b>Factory setting</b> 100 [%]
<b>p1544</b>	<b>Travel to fixed stop evaluation force reduction</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5610 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [%]	<b>Max</b> 65535 [%]	<b>Factory setting</b> 100 [%]
<b>p1545[0...n]</b>	<b>BI: Activates travel to a fixed stop</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary  <b>P-Group:</b> Commands <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170  <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2520, 3617, 8012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p1545[0...n]</b>	<b>BI: Activates travel to a fixed stop</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary  <b>P-Group:</b> Commands <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170  <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2520, 3617, 8012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p1546</b>	<b>Speed threshold motoring/regenerating</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 20.00 [rpm]

<b>p1546</b>	<b>Velocity threshold motoring/regenerative</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> 0.00 [m/min]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> -  <b>Max</b> 1000.00 [m/min]	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 0.20 [m/min]
<b>r1547[0...1]</b>	<b>CO: Torque limit for speed controller output</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [Nm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 7_1 <b>Scaling:</b> p2003  <b>Max</b> - [Nm]	<b>Access level:</b> 3 <b>Func. diagram:</b> 6060 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Nm]
<b>r1548[0...1]</b>	<b>CO: Stall current limit torque-generating maximum</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_2 <b>Scaling:</b> p2002  <b>Max</b> - [Arms]	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]
<b>r1549</b>	<b>CO: Stall power actual value</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [kW]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 14_5 <b>Scaling:</b> r2004  <b>Max</b> - [kW]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5640 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [kW]
<b>r1549</b>	<b>CO: Stall power actual value</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [kW]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 14_8 <b>Scaling:</b> r2004  <b>Max</b> - [kW]	<b>Access level:</b> 3 <b>Func. diagram:</b> 5640 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [kW]
<b>p1550[0...n]</b>	<b>BI: Transfer actual torque as torque offset</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 9718.23

<b>p1550[0...n]</b>	<b>BI: Transfer actual force as force offset</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 9718.23
<b>p1551[0...n]</b>	<b>BI: Torque limit variable/fixed signal source</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5620, 5630, 6060, 6630 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 1
<b>p1551[0...n]</b>	<b>BI: Force limit variable/fixed signal source</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5620, 5630, 6060, 6630 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 1
<b>p1552[0...n]</b>	<b>CI: Torque limit upper scaling without offset</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 5060 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 1
<b>p1552[0...n]</b>	<b>CI: Force limit upper scaling without offset</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 5060 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 1

<b>p1552[0...n]</b>	<b>CI: Torque limit upper scaling without offset</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 6060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1

<b>p1554[0...n]</b>	<b>CI: Torque limit lower scaling without offset</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 5060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1

<b>p1554[0...n]</b>	<b>CI: Force limit lower scaling without offset</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 5060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1

<b>p1554[0...n]</b>	<b>CI: Torque limit lower scaling without offset</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 6060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1

<b>p1555[0...n]</b>	<b>CI: Power limit</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> r2004	<b>Access level:</b> 3 <b>Func. diagram:</b> 6640 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1

<b>p1556[0...n]</b>	<b>Power limit scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 6640 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00	<b>Max</b> 340.28235E36	<b>Factory setting</b> 0.00

<b>p1569[0...n]</b>	<b>CI: Supplementary torque 3</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2003	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 3841[0]
	<b>Min</b> -	<b>Max</b> -	
<b>p1569[0...n]</b>	<b>CI: Supplementary force 3</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2003	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 3841[0]
	<b>Min</b> -	<b>Max</b> -	
<b>p1570[0...n]</b>	<b>CO: Flux setpoint</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 6722 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 100.0 [%]
	<b>Min</b> 50.0 [%]	<b>Max</b> 200.0 [%]	
<b>p1571[0...n]</b>	<b>CI: Supplementary flux setpoint</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 6725 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> -	<b>Max</b> -	
<b>p1572[0...n]</b>	<b>Supplementary flux setpoint</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 4 <b>Func. diagram:</b> 6726 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.0 [%]
	<b>Min</b> 0.0 [%]	<b>Max</b> 100.0 [%]	
<b>p1573[0...n]</b>	<b>Flux threshold value magnetizing</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 6722 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 100.0 [%]
	<b>Min</b> 10.0 [%]	<b>Max</b> 200.0 [%]	

<b>p1574[0...n]</b>	<b>Voltage reserve dynamic</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 6723, 6724
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 5_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [Vrms]	<b>Max</b> 150.0 [Vrms]	<b>Factory setting</b> 10.0 [Vrms]
<b>p1576[0...n]</b>	<b>Flux boost, adaptation speed, lower</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_ALL	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 6725
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 0.00 [rpm]
<b>p1577[0...n]</b>	<b>Flux boost adaptation speed, upper</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_ALL	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 6725
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 1.0 [%]	<b>Max</b> 10000.0 [%]	<b>Factory setting</b> 200.0 [%]
<b>p1578[0...n]</b>	<b>Flux reduction flux decrease smoothing time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_REG	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5722
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 20 [ms]	<b>Max</b> 5000 [ms]	<b>Factory setting</b> 200 [ms]
<b>p1579[0...n]</b>	<b>Flux reduction flux build-up smoothing time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_REG	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5722
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 5000 [ms]	<b>Factory setting</b> 4 [ms]
<b>p1580[0...n]</b>	<b>Efficiency optimization</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 6722
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0 [%]	<b>Max</b> 100 [%]	<b>Factory setting</b> 0 [%]

<b>p1581[0...n]</b>	<b>Flux reduction factor</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 5722 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 100 [%]
	<b>Min</b> 20 [%]	<b>Max</b> 100 [%]	
<b>p1582[0...n]</b>	<b>Flux setpoint smoothing time</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6722, 6724, 6725 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 15 [ms]
	<b>Min</b> 4 [ms]	<b>Max</b> 5000 [ms]	
<b>r1583</b>	<b>Flux setpoint smoothed</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 4 <b>Func. diagram:</b> 6722, 6723, 6724 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> - [%]
	<b>Min</b> - [%]	<b>Max</b> - [%]	
<b>p1584[0...n]</b>	<b>Field weakening operation, flux setpoint smoothing time</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6722 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0 [ms]
	<b>Min</b> 0 [ms]	<b>Max</b> 20000 [ms]	
<b>p1585[0...n]</b>	<b>Flux actual value, smoothing time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0 [ms]
	<b>Min</b> 0 [ms]	<b>Max</b> 1000 [ms]	

<b>p1585[0...n]</b>	<b>Flux actual value, smoothing time</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 6726
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 1000 [ms]	<b>Factory setting</b> 0 [ms]

<b>p1586[0...n]</b>	<b>Field weakening characteristic, scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 80.0 [%]	<b>Max</b> 120.0 [%]	<b>Factory setting</b> 100.0 [%]

<b>r1589</b>	<b>Field-weakening current, pre-control value</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6724
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> ASM, REL, FEM	<b>Scaling:</b> p2002	<b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

<b>p1590[0...n]</b>	<b>Flux controller P gain</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_CON	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5722
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [A/Vs]	<b>Max</b> 999999.0 [A/Vs]	<b>Factory setting</b> 10.0 [A/Vs]

<b>p1590[0...n]</b>	<b>Flux controller P gain</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_CON	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 6723
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0	<b>Max</b> 999999.0	<b>Factory setting</b> 10.0

<b>p1592[0...n]</b>	<b>Flux controller integral time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_CON	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 5722
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 10000 [ms]	<b>Factory setting</b> 30 [ms]



<b>p1592[0...n]</b>	<b>Flux controller integral time</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6723 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 10000 [ms]	<b>Factory setting</b> 30 [ms]
<b>r1593[0...1]</b>	<b>CO: Field weakening controller / flux controller output</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_2 <b>Scaling:</b> p2002	<b>Access level:</b> 4 <b>Func. diagram:</b> 6723, 6724, 6726 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]
<b>p1594[0...n]</b>	<b>Field-weakening controller, P gain</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6724 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00	<b>Max</b> 1000.00	<b>Factory setting</b> 0.00
<b>p1596[0...n]</b>	<b>Field weakening controller integral-action time</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6723, 6724 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 10 [ms]	<b>Max</b> 10000 [ms]	<b>Factory setting</b> 50 [ms]
<b>r1597</b>	<b>CO: Field weakening controller output</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 4 <b>Func. diagram:</b> 6723 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>r1598</b>	<b>CO: Total flux setpoint</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6714, 6723, 6724, 6725, 6726, 8018
	<b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>p1599[0...n]</b>	<b>Flux controller, excitation current difference</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180	<b>Access level:</b> 3 <b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 100.0 [%]	<b>Factory setting</b> 3.0 [%]

<b>p1600[0...n]</b>	<b>P flux controller, P gain</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180	<b>Access level:</b> 3 <b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0	<b>Max</b> 999999.0	<b>Factory setting</b> 10.0

<b>r1602</b>	<b>CO: P flux controller output</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6726, 6727
	<b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Units group:</b> 6_2 <b>Scaling:</b> p2002	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

<b>p1603[0...n]</b>	<b>Field-generating current, maximum</b>		
SERVO_840	<b>Can be changed:</b> C2, U, T <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180	<b>Access level:</b> 3 <b>Func. diagram:</b> -
	<b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 100.0 [%]	<b>Factory setting</b> 90.0 [%]

<b>p1603[0...n]</b>	<b>Field-generating current, maximum</b>		
SERVO, SERVO_AC	<b>Can be changed:</b> C2, U, T <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180	<b>Access level:</b> 3 <b>Func. diagram:</b> -
	<b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 100.0 [%]	<b>Factory setting</b> 0.0 [%]

<b>p1604[0...n]</b>	<b>Pulse technique current limit</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [Arms]
	<b>Min</b> 0.00 [Arms]	<b>Max</b> 10000.00 [Arms]	
<b>p1605[0...n]</b>	<b>Pulse technique pattern configuration</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 2
	<b>Min</b> 1	<b>Max</b> 2	
<b>r1606</b>	<b>CO: Pulse technique pattern actual</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> -
	<b>Min</b> 0	<b>Max</b> 2	
<b>p1607[0...n]</b>	<b>Pulse technique stimulus</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 32.000 [mVs]
	<b>Min</b> 0.000 [mVs]	<b>Max</b> 20000.000 [mVs]	
<b>r1608[0...6]</b>	<b>CO: Pulse technique response</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_5 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> - [A]
	<b>Min</b> - [A]	<b>Max</b> - [A]	
<b>p1609[0...n]</b>	<b>I/f operation current setpoint</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 6_2 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [Arms]
	<b>Min</b> 0.00 [Arms]	<b>Max</b> 10000.00 [Arms]	

<b>p1610[0...n]</b>	<b>Torque setpoint static (SLVC)</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180	<b>Access level:</b> 2 <b>Func. diagram:</b> 1710, 6721, 6722, 6726
	<b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -200.0 [%]	<b>Max</b> 200.0 [%]	<b>Factory setting</b> 50.0 [%]

<b>p1611[0...n]</b>	<b>Supplementary accelerating torque (SLVC)</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180	<b>Access level:</b> 2 <b>Func. diagram:</b> 1710, 6721, 6722, 6726
	<b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Units group:</b> - <b>Scaling:</b> -	<b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 200.0 [%]	<b>Factory setting</b> 30.0 [%]

<b>p1612[0...n]</b>	<b>Current setpoint, open-loop control, encoderless</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> DDS, p0180	<b>Access level:</b> 2 <b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Units group:</b> 6_2 <b>Scaling:</b> -	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Arms]	<b>Max</b> 10000.00 [Arms]	<b>Factory setting</b> 0.00 [Arms]

<b>p1612[0...n]</b>	<b>Current setpoint magnetizing open-loop controlled</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180	<b>Access level:</b> 2 <b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Units group:</b> 6_2 <b>Scaling:</b> -	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Arms]	<b>Max</b> 10000.00 [Arms]	<b>Factory setting</b> 0.00 [Arms]

<b>r1614</b>	<b>EMF maximum</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32	<b>Calculated:</b> - <b>Dynamic index:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6725
	<b>P-Group:</b> Displays, signals <b>Not for motor type:</b> ASM, PEM, REL	<b>Units group:</b> 5_1 <b>Scaling:</b> p2001	<b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]

<b>p1616[0...n]</b>	<b>Current setpoint smoothing time</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 4 [ms]	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> DDS, p0180  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 10000 [ms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 6721, 6722, 6726 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 40 [ms]
<b>r1617</b>	<b>CO: Torque setpoint (controlled)</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL  <b>Min</b> - [Nm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [Nm]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [Nm]
<b>r1618</b>	<b>Current model controller, pre-control</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_2 <b>Scaling:</b> p2002  <b>Max</b> - [Arms]	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]
<b>p1619[0...n]</b>	<b>Setpoint/actual value tracking threshold</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL  <b>Min</b> 0.00 [Arms]	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 6_2 <b>Scaling:</b> p2002  <b>Max</b> 10000.00 [Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [Arms]
<b>p1620[0...n]</b>	<b>Stator current, minimum</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL  <b>Min</b> -10000.00 [Arms]	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 6_2 <b>Scaling:</b> -  <b>Max</b> 10000.00 [Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [Arms]
<b>p1621[0...n]</b>	<b>Changeover speed, inner cos phi = 1</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL  <b>Min</b> 0.00 [rpm]	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -  <b>Max</b> 210000.00 [rpm]	<b>Access level:</b> 3 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [rpm]

<b>p1622[0...n]</b>	<b>Field-generating current setpoint smoothing time constant</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 6727
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.1 [ms]	<b>Max</b> 200.0 [ms]	<b>Factory setting</b> 20.0 [ms]
<b>r1623[0...1]</b>	<b>Field-generating current setpoint (steady-state)</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6723, 6726, 6727
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> PEM, REL	<b>Scaling:</b> p2002	<b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]
<b>r1624</b>	<b>Field-generating current setpoint, total</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6640, 6721, 6723, 6727
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2002	<b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]
<b>p1625[0...n]</b>	<b>Excitation current setpoint calibration</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 6727
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 10.0 [%]	<b>Max</b> 200.0 [%]	<b>Factory setting</b> 100.0 [%]
<b>r1626</b>	<b>CO: Excitation current setpoint</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6727
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>r1627</b>	<b>CO: Current model load angle</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2005	<b>Access level:</b> 3 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> - [°]
	<b>Min</b> - [°]	<b>Max</b> - [°]	
<b>p1628[0...n]</b>	<b>Current model controller, dynamic factor</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 50 [%]
	<b>Min</b> 1 [%]	<b>Max</b> 400 [%]	
<b>p1629[0...n]</b>	<b>Current model controller P gain</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.000
	<b>Min</b> 0.000	<b>Max</b> 100000.000	
<b>p1630[0...n]</b>	<b>Current model controller integral time</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [ms]
	<b>Min</b> 0.00 [ms]	<b>Max</b> 10000.00 [ms]	
<b>r1631</b>	<b>Current model controller, P gain effective</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> -
	<b>Min</b> -	<b>Max</b> -	
<b>r1632</b>	<b>Current model controller integral time effective</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> - [ms]
	<b>Min</b> - [ms]	<b>Max</b> - [ms]	

<b>r1633</b>	<b>Current model, flux setpoint</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6727
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>r1634</b>	<b>Current model, flux actual value</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6727
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>r1635</b>	<b>Current model controller, I component</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6727
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> p2002	<b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

<b>r1636</b>	<b>Current model controller output</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6727
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> p2002	<b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

<b>r1637</b>	<b>Current model, magnetizing current, d axis</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6727
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> p2002	<b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

<b>r1638</b>	<b>Current model, magnetizing current, q axis</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6727
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> p2002	<b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]



<b>r1639</b>	<b>CO: Current model Isq after actual value tracking</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_2 <b>Scaling:</b> p2002	<b>Access level:</b> 4 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> - [Arms]
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	
<b>p1640[0...n]</b>	<b>CI: Excitation current actual value signal source</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> -	<b>Max</b> -	
<b>r1641</b>	<b>Excitation current actual value</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 6727, 8018 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> - [%]
	<b>Min</b> - [%]	<b>Max</b> - [%]	
<b>p1642[0...n]</b>	<b>Minimum excitation current</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 5.0 [%]
	<b>Min</b> 0.1 [%]	<b>Max</b> 50.0 [%]	
<b>p1643[0...n]</b>	<b>Gain factor, minimum excitation current closed-loop control</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.40
	<b>Min</b> 0.00	<b>Max</b> 5.00	
<b>r1644</b>	<b>CO: Excitation current monitoring output</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_2 <b>Scaling:</b> p2002	<b>Access level:</b> 4 <b>Func. diagram:</b> 6727 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> - [Arms]
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	

<b>p1645[0...6]</b>	<b>BI: Excitation feedback signals signal source</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6495
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1

<b>p1646</b>	<b>Excitation monitoring time</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6495
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 2.0 [s]	<b>Max</b> 1300.0 [s]	<b>Factory setting</b> 20.0 [s]

<b>p1647</b>	<b>Excitation switch-off delay time</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6495
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [s]	<b>Max</b> 5.0 [s]	<b>Factory setting</b> 0.8 [s]

<b>r1648.0...11</b>	<b>CO/BO: Excitation, control word</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6495
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r1649.0...7</b>	<b>CO/BO: Excitation status word</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6495
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r1650</b>	<b>Current setpoint torque-generating before filter</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 5710
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2002	<b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

<b>r1650</b>	<b>Current setpoint force-generating before filter</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_2 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting</b> - [Arms]
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	
<b>r1651</b>	<b>CO: Torque setpoint, function generator</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 7_1 <b>Scaling:</b> p2003	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting</b> - [Nm]
	<b>Min</b> - [Nm]	<b>Max</b> - [Nm]	
<b>r1651</b>	<b>CO: Force setpoint, function generator</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 8_1 <b>Scaling:</b> p2003	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting</b> - [N]
	<b>Min</b> - [N]	<b>Max</b> - [N]	
<b>p1653[0...n]</b>	<b>Current setpoint torque-generating smoothing time minimum</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6710 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0.1 [ms]
	<b>Min</b> 0.1 [ms]	<b>Max</b> 20.0 [ms]	
<b>p1654[0...n]</b>	<b>Curr. setpoint torque-gen. smoothing time field weakening range</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6710 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 4.8 [ms]
	<b>Min</b> 0.1 [ms]	<b>Max</b> 50.0 [ms]	
<b>p1655[0...4]</b>	<b>CI: Current setpoint/Speed actual value filter nat. frequency tuning</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 1710, 6710 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 1
	<b>Min</b> -	<b>Max</b> -	

<b>p1656[0...n]</b>	<b>Activates current setpoint filter</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0001 bin
<b>p1656[0...n]</b>	<b>Current setpoint/Speed actual value filter activation</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4715, 6710 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0000 0001 bin
<b>p1657[0...n]</b>	<b>Current setpoint filter 1 type</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710, 6710 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 1
<b>p1658[0...n]</b>	<b>Current setpoint filter 1 denominator natural frequency</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710, 6710 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 1999.0 [Hz]
<b>p1659[0...n]</b>	<b>Current setpoint filter 1 denominator damping</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710, 6710 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.700
<b>p1660[0...n]</b>	<b>Current setpoint filter 1 numerator natural frequency</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710, 6710 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 1999.0 [Hz]

<b>p1661[0...n]</b>	<b>Current setpoint filter 1 numerator damping</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710, 6710 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 10.000	<b>Factory setting</b> 0.700
<b>p1662[0...n]</b>	<b>Current setpoint filter 2 type</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710, 6710 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 2	<b>Factory setting</b> 1
<b>p1663[0...n]</b>	<b>Current setpoint filter 2 denominator natural frequency</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710, 6710 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 1999.0 [Hz]
<b>p1664[0...n]</b>	<b>Current setpoint filter 2 denominator damping</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710, 6710 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.001	<b>Max</b> 10.000	<b>Factory setting</b> 0.700
<b>p1665[0...n]</b>	<b>Current setpoint filter 2 numerator natural frequency</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710, 6710 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 1999.0 [Hz]
<b>p1666[0...n]</b>	<b>Current setpoint filter 2 numerator damping</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710, 6710 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 10.000	<b>Factory setting</b> 0.700

<b>p1667[0...n]</b>	<b>Current setpoint filter 3 type</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 2	<b>Factory setting</b> 1

<b>p1668[0...n]</b>	<b>Current setpoint filter 3 denominator natural frequency</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 1999.0 [Hz]

<b>p1669[0...n]</b>	<b>Current setpoint filter 3 denominator damping</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.001	<b>Max</b> 10.000	<b>Factory setting</b> 0.700

<b>p1670[0...n]</b>	<b>Current setpoint filter 3 numerator natural frequency</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 1999.0 [Hz]

<b>p1671[0...n]</b>	<b>Current setpoint filter 3 numerator damping</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 10.000	<b>Factory setting</b> 0.700

<b>p1672[0...n]</b>	<b>Current setpoint filter 4 type</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 2	<b>Factory setting</b> 1

<b>p1673[0...n]</b>	<b>Current setpoint filter 4 denominator natural frequency</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 1999.0 [Hz]
<b>p1674[0...n]</b>	<b>Current setpoint filter 4 denominator damping</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.001	<b>Max</b> 10.000	<b>Factory setting</b> 0.700
<b>p1675[0...n]</b>	<b>Current setpoint filter 4 numerator natural frequency</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 1999.0 [Hz]
<b>p1676[0...n]</b>	<b>Current setpoint filter 4 numerator damping</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5710 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 10.000	<b>Factory setting</b> 0.700
<b>p1677[0...n]</b>	<b>Speed actual value filter 5 type</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4715 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 2	<b>Factory setting</b> 2
<b>p1678[0...n]</b>	<b>Speed actual value filter 5 denominator natural frequency</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4715 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 1999.0 [Hz]

<b>p1679[0...n]</b>	<b>Speed actual value filter 5 denominator damping</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4715 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.700
	<b>Min</b> 0.001	<b>Max</b> 10.000	

<b>p1680[0...n]</b>	<b>Speed actual value filter 5 numerator natural frequency</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4715 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 1999.0 [Hz]
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	

<b>p1681[0...n]</b>	<b>Speed actual value filter 5 numerator damping</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4715 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.700
	<b>Min</b> 0.000	<b>Max</b> 10.000	

<b>p1699</b>	<b>Filter data acceptance</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 1	

<b>p1701[0...n]</b>	<b>Current controller reference model dead time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5714 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 1.0
	<b>Min</b> 0.0	<b>Max</b> 1.0	

<b>p1702[0...n]</b>	<b>Isd current controller pre-control scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6714 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 70.0 [%]
	<b>Min</b> 0.0 [%]	<b>Max</b> 200.0 [%]	



<b>p1703[0...n]</b>	<b>Isq current controller pre-control scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6714 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 70.0 [%]
	<b>Min</b> 0.0 [%]	<b>Max</b> 200.0 [%]	
<b>p1704[0...n]</b>	<b>Isq current controller pre-control EMF scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6714, 6726 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 100.0 [%]
	<b>Min</b> 0.0 [%]	<b>Max</b> 200.0 [%]	
<b>p1705[0...n]</b>	<b>Flux setpoint/actual value tracking threshold</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 4 <b>Func. diagram:</b> 6714, 6726 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 100.0 [%]
	<b>Min</b> 0.0 [%]	<b>Max</b> 100.0 [%]	
<b>p1715[0...n]</b>	<b>Current controller P gain</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 18_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5714, 7017 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 0.000 [V/A]
	<b>Min</b> 0.000 [V/A]	<b>Max</b> 100000.000 [V/A]	
<b>p1715[0...n]</b>	<b>Current controller P gain</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1710, 6714, 7017 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.000
	<b>Min</b> 0.000	<b>Max</b> 100000.000	

<b>p1717[0...n]</b>	<b>Current controller integral-action time</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> 0.00 [ms]	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 1000.00 [ms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 1710, 5714, 6714, 7017 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 2.00 [ms]

<b>r1718</b>	<b>CO: Isq controller output</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [Vrms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_1 <b>Scaling:</b> p2001  <b>Max</b> - [Vrms]	<b>Access level:</b> 4 <b>Func. diagram:</b> 6714 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Vrms]

<b>r1719</b>	<b>Isq controller integral component</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [Vrms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_1 <b>Scaling:</b> p2001  <b>Max</b> - [Vrms]	<b>Access level:</b> 4 <b>Func. diagram:</b> 6714 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Vrms]

<b>r1723</b>	<b>CO: Isd controller output</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [Vrms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_1 <b>Scaling:</b> p2001  <b>Max</b> - [Vrms]	<b>Access level:</b> 4 <b>Func. diagram:</b> 6714 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Vrms]

<b>r1724</b>	<b>Isd controller integral component</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [Vrms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_1 <b>Scaling:</b> p2001  <b>Max</b> - [Vrms]	<b>Access level:</b> 4 <b>Func. diagram:</b> 6714 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Vrms]

<b>r1725</b>	<b>Isd controller integral component limit</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL  <b>Min</b> - [Vrms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_1 <b>Scaling:</b> p2001  <b>Max</b> - [Vrms]	<b>Access level:</b> 4 <b>Func. diagram:</b> 6714 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Vrms]

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<b>p1726[0...n]</b>	<b>Quadrature arm decoupling, scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6714 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 200.0 [%]	<b>Factory setting</b> 75.0 [%]

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<b>p1727[0...n]</b>	<b>Quadrature arm decoupling at voltage limit scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 6714 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 200.0 [%]	<b>Factory setting</b> 50.0 [%]

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<b>r1728</b>	<b>De-coupling voltage, in-line axis</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_1 <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> 6714 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]

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<b>r1729</b>	<b>De-coupling voltage, quadrature axis</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_1 <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> 6714 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]

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<b>p1730[0...n]</b>	<b>Isd controller integral component shutdown threshold</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 30 [%]	<b>Max</b> 150 [%]	<b>Factory setting</b> 30 [%]

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<b>p1731[0...n]</b>	<b>Isd controller combination current time component</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 10000.00 [ms]	<b>Factory setting</b> 0.00 [ms]

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<b>r1732</b>	<b>CO: Direct-axis voltage setpoint</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1630, 5714, 6714, 5718
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 5_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2001	<b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]

<b>r1732[0...1]</b>	<b>CO: Direct-axis voltage setpoint</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1630, 5714, 6714, 5718
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 5_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2001	<b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]

<b>r1733</b>	<b>CO: Quadrature-axis voltage setpoint</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1630, 5714, 5718, 6714, 6719
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 5_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2001	<b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]

<b>r1733[0...1]</b>	<b>CO: Quadrature-axis voltage setpoint</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1630, 5714, 5718, 6714, 6719
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 5_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2001	<b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]

<b>p1740[0...n]</b>	<b>Gain resonance damping for encoderless closed-loop control</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_CON	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 10.000	<b>Factory setting</b> 0.025

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<b>p1744[0...n]</b>	<b>Motor model speed threshold stall detection</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_REG	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 100.00 [rpm]

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<b>p1745[0...n]</b>	<b>Motor model error threshold stall detection</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_REG	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 1000.0 [%]	<b>Factory setting</b> 5.0 [%]

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<b>r1746</b>	<b>Motor model error signal stall detection</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

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<b>p1748[0...n]</b>	<b>Motor model lower changeover speed n_set -&gt; n_act</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 90.0 [%]	<b>Factory setting</b> 50.0 [%]

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<b>p1749[0...n]</b>	<b>Motor model upper changeover speed / increase changeover speed</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 99.0 [%]	<b>Factory setting</b> 50.0 [%]

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<b>p1750[0...n]</b>	<b>Motor model configuration</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned8	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 bin

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<b>r1751</b>	<b>Motor model status</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> -
	<b>Min</b> -	<b>Max</b> -	

<b>p1752[0...n]</b>	<b>Motor model changeover speed operation with encoder</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 210000.00 [rpm]
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	

<b>p1752[0...n]</b>	<b>Motor model with encoder changeover velocity</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 1000.00 [m/min]
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 1000.00 [m/min]	

<b>p1752[0...n]</b>	<b>Motor model changeover speed operation with encoder</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 210000.00 [rpm]
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	

<b>p1753[0...n]</b>	<b>Motor model changeover speed hysteresis operation with encoder</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.0 [%]
	<b>Min</b> 0.0 [%]	<b>Max</b> 90.0 [%]	

<b>p1754[0...n]</b>	<b>Flux angle difference smoothing time</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6733 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 5.0 [ms]
	<b>Min</b> 0.1 [ms]	<b>Max</b> 10000.0 [ms]	

<b>p1755[0...n]</b>	<b>Motor model changeover speed encoderless operation</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 210000.00 [rpm]
<b>p1755[0...n]</b>	<b>Motor model changeover velocity encoderless operation</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 1000.00 [m/min]	<b>Factory setting</b> 1000.00 [m/min]
<b>p1755[0...n]</b>	<b>Motor model changeover speed encoderless operation</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 210000.00 [rpm]
<b>p1756</b>	<b>Motor model changeover speed hysteresis</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 90.0 [%]	<b>Factory setting</b> 5.0 [%]
<b>p1756</b>	<b>Motor model changeover velocity hysteresis</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 90.0 [%]	<b>Factory setting</b> 5.0 [%]
<b>p1756</b>	<b>Motor model changeover speed hysteresis encoderless operation</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6730, 6731, 6732, 6733 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 95.0 [%]	<b>Factory setting</b> 50.0 [%]

<b>p1757[0...n]</b>	<b>Motor model w/o enc. op./cl.-loop controlled stab. controller Kp</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_CON	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.01	<b>Max</b> 10.00	<b>Factory setting</b> 0.70

<b>p1758[0...n]</b>	<b>Motor model changeover delay time closed/open-loop control</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 100 [ms]	<b>Max</b> 10000 [ms]	<b>Factory setting</b> 1000 [ms]

<b>p1759[0...n]</b>	<b>Motor model changeover delay time open/closed-loop control</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 2000 [ms]	<b>Factory setting</b> 0 [ms]

<b>p1760[0...n]</b>	<b>Motor model with encoder speed adaptation Kp</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_CON	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 100000.000	<b>Factory setting</b> 1000.000

<b>p1761[0...n]</b>	<b>Motor model with encoder speed adaptation Tn</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_CON	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 1000 [ms]	<b>Factory setting</b> 4 [ms]

<b>r1762[0...1]</b>	<b>Motor model deviation component 1</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6721, 6730, 6731
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -



<b>r1763</b>	<b>Motor model deviation component 2</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p1764[0...n]</b>	<b>Motor model without encoder speed adaptation Kp</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL, FEM	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6730 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 100000.000	<b>Factory setting</b> 1000.000
<b>r1765</b>	<b>Motor model, speed adaptation Kp effective</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p1766[0...n]</b>	<b>Motor model voltage model calculation enable</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 90.0 [%]	<b>Factory setting</b> 50.0 [%]
<b>p1767[0...n]</b>	<b>Motor model without encoder speed adaptation Tn</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL, FEM	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6730 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1 [ms]	<b>Max</b> 200 [ms]	<b>Factory setting</b> 4 [ms]
<b>r1768</b>	<b>Motor model, speed adaptation Vi effective</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r1770</b>	<b>CO: Motor model speed adaptation proportional component</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6730
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL, FEM	<b>Scaling:</b> p2000	<b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>r1771</b>	<b>CO: Motor model speed adaptation I comp.</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 6730
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL, FEM	<b>Scaling:</b> p2000	<b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>r1773[0...1]</b>	<b>Motor model slip speed</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>p1774[0...n]</b>	<b>Motor model, offset voltage compensation alpha</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -5.000 [V]	<b>Max</b> 5.000 [V]	<b>Factory setting</b> 0.000 [V]

<b>p1775[0...n]</b>	<b>Motor model, offset voltage compensation beta</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -5.000 [V]	<b>Max</b> 5.000 [V]	<b>Factory setting</b> 0.000 [V]

<b>r1776[0...6]</b>	<b>Motor model status signals</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r1778</b>	<b>Motor model flux angle difference</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2005	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> - [°]
<b>r1778</b>	<b>Motor model flux angle difference</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2005	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> - [°]
<b>r1779</b>	<b>Motor model absolute flux</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> - [%]
<b>p1780[0...n]</b>	<b>Motor model adaptation configuration</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0000 0000 0000 0000 bin
<b>p1780[0...n]</b>	<b>Motor model adaptation configuration</b>		
SERVO, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0000 0000 0010 0000 bin
<b>p1780[0...n]</b>	<b>Motor/converter model adaptation configuration</b>		
SERVO (Ext M_ctrl), SERVO_840 (Ext M_ctrl), SERVO_AC (Ext M_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0000 0001 0010 1000 bin

<b>p1780[0...n]</b>	<b>Motor model adaptation configuration</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0111 1100 bin

<b>p1784[0...n]</b>	<b>Motor model feedback scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_CON	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 1000.0 [%]	<b>Factory setting</b> 0.0 [%]

<b>p1785[0...n]</b>	<b>Motor model Lh adaptation Kp</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_CON	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 10.000	<b>Factory setting</b> 0.100

<b>p1786[0...n]</b>	<b>Motor model Lh adaptation integral time</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_CON	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 10 [ms]	<b>Max</b> 10000 [ms]	<b>Factory setting</b> 100 [ms]

<b>r1787[0...n]</b>	<b>Motor model Lh adaptation corrective value</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [mH]	<b>Max</b> - [mH]	<b>Factory setting</b> - [mH]

<b>r1791</b>	<b>Motor model Lh adaptation power-on frequency</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [Hz]	<b>Max</b> - [Hz]	<b>Factory setting</b> - [Hz]

<b>r1792</b>	<b>Motor model Lh adaptation power-on slip</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> PEM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> - [Hz]
	<b>Min</b> - [Hz]	<b>Max</b> - [Hz]	
<b>p1795[0...n]</b>	<b>Motor model kT adaptation smoothing time</b>		
SERVO (Ext M_ctrl), SERVO_840 (Ext M_ctrl), SERVO_AC (Ext M_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 100 [ms]
	<b>Min</b> 1 [ms]	<b>Max</b> 10000 [ms]	
<b>p1795[0...n]</b>	<b>Motor model kT adaptation integral time</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6731 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 100 [ms]
	<b>Min</b> 10 [ms]	<b>Max</b> 10000 [ms]	
<b>r1797</b>	<b>Motor model kT adaptation corrective value</b>		
SERVO (Ext M_ctrl, Lin), SERVO_840 (Ext M_ctrl, Lin), SERVO_AC (Ext M_ctrl, Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> - [N/Arms]
	<b>Min</b> - [N/Arms]	<b>Max</b> - [N/Arms]	
<b>r1797</b>	<b>Motor model kT adaptation corrective value</b>		
SERVO (Ext M_ctrl), SERVO_840 (Ext M_ctrl), SERVO_AC (Ext M_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> - [Nm/A]
	<b>Min</b> - [Nm/A]	<b>Max</b> - [Nm/A]	
<b>r1797[0...n]</b>	<b>Motor model kT adaptation corrective value</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6731 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> - [Nm/A]
	<b>Min</b> - [Nm/A]	<b>Max</b> - [Nm/A]	

<b>p1798[0...n]</b>	<b>Motor model pulse technique speed adaptation Kp</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 1000.000	<b>Factory setting</b> 1.000

<b>p1800[0...n]</b>	<b>Pulse frequency setpoint</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1.000 [kHz]	<b>Max</b> 32.000 [kHz]	<b>Factory setting</b> 4.000 [kHz]

<b>p1800[0...n]</b>	<b>Pulse frequency setpoint</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1.000 [kHz]	<b>Max</b> 16.000 [kHz]	<b>Factory setting</b> 4.000 [kHz]

<b>r1801[0...1]</b>	<b>CO: Pulse frequency</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [kHz]	<b>Max</b> - [kHz]	<b>Factory setting</b> - [kHz]

<b>p1802[0...n]</b>	<b>Modulator mode</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T  <b>Data type:</b> Integer16 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 9	<b>Factory setting</b> 0

<b>p1802[0...n]</b>	<b>Modulator mode</b>		
VECTOR (F3E), VECTOR_AC (F3E)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Modulation	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 4	<b>Factory setting</b> 4
<b>p1803[0...n]</b>	<b>Maximum modulation depth</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 6723
	<b>P-Group:</b> Modulation	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 20.0 [%]	<b>Max</b> 150.0 [%]	<b>Factory setting</b> 100.0 [%]
<b>p1803[0...n]</b>	<b>Maximum modulation depth</b>		
VECTOR (F3E), VECTOR_AC (F3E)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 6723
	<b>P-Group:</b> Modulation	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 20.0 [%]	<b>Max</b> 150.0 [%]	<b>Factory setting</b> 106.0 [%]
<b>p1804[0...n]</b>	<b>Filter time constant smoothed modulation index</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Modulation	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [ms]	<b>Max</b> 10000.0 [ms]	<b>Factory setting</b> 10.0 [ms]
<b>p1806[0...n]</b>	<b>Filter time constant Vdc correction</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_REG	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [ms]	<b>Max</b> 10000.0 [ms]	<b>Factory setting</b> 0.0 [ms]

<b>r1807</b>	<b>Actual DC link voltage to calculate the modulation depth</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [V]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_2 <b>Scaling:</b> p2001  <b>Max</b> - [V]	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [V]

<b>r1808</b>	<b>DC link voltage actual value for U_max calculation</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [V]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_2 <b>Scaling:</b> p2001  <b>Max</b> - [V]	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [V]

<b>r1809</b>	<b>CO: Modulator mode actual</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -  <b>Min</b> 1	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 9	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>p1810</b>	<b>Modulator configuration</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 1000 0100 0001 0000 bin

<b>p1810</b>	<b>Modulator configuration</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0000 0000 0000 0000 bin

<b>p1810</b>	<b>Modulator configuration</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0000 0000 0000 0010 bin



<b>p1810</b>	<b>Modulator configuration</b>		
VECTOR (F3E), VECTOR_AC (F3E)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 bin
<b>p1811</b>	<b>Pulse frequency wobulation amplitude</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [%]	<b>Max</b> 20 [%]	<b>Factory setting</b> 0 [%]
<b>p1811[0...n]</b>	<b>Pulse frequency wobulation amplitude</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [%]	<b>Max</b> 20 [%]	<b>Factory setting</b> 0 [%]
<b>p1812</b>	<b>BI: Offset calibration output current measurement</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1
<b>p1815</b>	<b>Phase for PWM generation subgroup</b>		
A_INF, A_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0001 bin

<b>p1816</b>	<b>Set phase for PWM generation manually</b>		
A_INF, A_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -1	<b>Max</b> 16	<b>Factory setting</b> -1

<b>p1817</b>	<b>Minimum ratio, pulse frequency to the output frequency</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(2) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 8.3	<b>Max</b> 15.0	<b>Factory setting</b> 12.0

<b>p1818</b>	<b>Phase for PWM generation configuration</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 1

<b>p1819</b>	<b>Phase for PWM generation</b>		
A_INF, A_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -1	<b>Max</b> 16	<b>Factory setting</b> 0

<b>p1819</b>	<b>Phase for PWM generation</b>		
S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -1	<b>Max</b> 16	<b>Factory setting</b> -1

<b>p1820[0...n]</b>	<b>Reverse the output phase sequence</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3) <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 6732 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 1	
<b>p1821[0...n]</b>	<b>Dir of rot</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(3) <b>Data type:</b> Integer16  <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180  <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4704, 4710, 4711, 4715, 5730, 6730, 6731, 6732 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 1	
<b>p1821[0...n]</b>	<b>Direction</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(3) <b>Data type:</b> Integer16  <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180  <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4704, 4710, 4711, 4715, 5730, 6730, 6731, 6732 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 1	
<b>p1821[0...n]</b>	<b>Dir of rot</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3) <b>Data type:</b> Integer16  <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180  <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4704, 4710, 4711, 4715, 5730, 6730, 6731, 6732 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 1	
<b>p1825</b>	<b>Converter valve threshold voltage</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.6 [Vrms]
	<b>Min</b> 0.0 [Vrms]	<b>Max</b> 100.0 [Vrms]	

<b>p1827</b>	<b>Infeed compensation valve lockout time operating mode</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Modulation <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 1	

<b>p1828</b>	<b>Compensation valve lockout time phase U</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [µs]
	<b>Min</b> 0.00 [µs]	<b>Max</b> 1000000.00 [µs]	

<b>p1829</b>	<b>Compensation valve lockout time phase V</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [µs]
	<b>Min</b> 0.00 [µs]	<b>Max</b> 1000000.00 [µs]	

<b>p1830</b>	<b>Compensation valve lockout time phase W</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [µs]
	<b>Min</b> 0.00 [µs]	<b>Max</b> 1000000.00 [µs]	

<b>p1832</b>	<b>Dead time compensation current level</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.0 [Arms]
	<b>Min</b> 0.0 [Arms]	<b>Max</b> 10000.0 [Arms]	

<b>p1835[0...1]</b>	<b>Pulse frequency reduction switchover frequency shift</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> REL, FEM	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [Hz]
	<b>Min</b> 0.00 [Hz]	<b>Max</b> 800.00 [Hz]	

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<b>r1836[0...1]</b>	<b>Pulse frequency reduction, switchover frequency</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Modulation	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [Hz]	<b>Max</b> - [Hz]	<b>Factory setting</b> - [Hz]

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<b>r1837</b>	<b>Gating unit configuration</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Modulation	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>p1840[0...n]</b>	<b>Actual value correction configuration</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Modulation	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin

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<b>r1841</b>	<b>Actual value correction status word</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Modulation	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>p1845[0...n]</b>	<b>Actual value correction evaluation factor Lsig</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Modulation	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00	<b>Max</b> 10.00	<b>Factory setting</b> 1.00

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<b>p1846[0...n]</b>	<b>Actual value correction damping factor</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Modulation	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00	<b>Max</b> 10.00	<b>Factory setting</b> 1.00

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<b>r1848[0...5]</b>	<b>Actual value correction phase currents</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Modulation	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r1849[0...5]</b>	<b>Actual value correction phase voltages</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Modulation	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>p1900</b>	<b>Motor data identification and rotating measurement</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1), T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	2	2

<b>p1900</b>	<b>Motor data identification and rotating measurement</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> C2(1), T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	3	2

<b>p1901</b>	<b>Test pulse evaluation configuration</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_ALL	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0000 bin

<b>r1902</b>	<b>Test pulse evaluation status</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>p1905</b>	<b>Parameter tuning selection</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 90	<b>Factory setting</b> 0
<b>p1909[0...n]</b>	<b>Motor data identification control word</b>		
SERVO (Ext M_ctrl, Lin), SERVO_840 (Ext M_ctrl, Lin), SERVO_AC (Ext M_ctrl, Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0110 0111 0000 0000 bin
<b>p1909[0...n]</b>	<b>Motor data identification control word</b>		
SERVO (Lin), SERVO, SERVO_840 (Lin), SERVO_840, SERVO_AC (Lin), SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0010 0111 0000 0000 bin
<b>p1909[0...n]</b>	<b>Motor data identification control word</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 0000 0000 0000 0000 bin
<b>p1910</b>	<b>Motor data identification routine, stationary (standstill)</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -3	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p1910</b>	<b>Motor data identification selection</b>		
VECTOR, VECTOR_AC	Can be changed: T Data type: Integer16 P-Group: Motor identification Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 26	Factory setting 1

<b>p1911</b>	<b>Number of phases to be identified</b>		
VECTOR, VECTOR_AC	Can be changed: T Data type: Integer16 P-Group: Motor identification Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min 1	Max 3	Factory setting 1

<b>r1912</b>	<b>Stator resistance identified</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min - [ohm]	Max - [ohm]	Factory setting - [ohm]

<b>r1912[0...2]</b>	<b>Identified stator resistance</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min - [ohm]	Max - [ohm]	Factory setting - [ohm]

<b>r1913</b>	<b>Rotor time constant identified</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: PEM	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min - [ms]	Max - [ms]	Factory setting - [ms]

<b>r1913[0...2]</b>	<b>Identified rotor time constant</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: PEM	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min - [ms]	Max - [ms]	Factory setting - [ms]



<b>r1914[0...2]</b>	<b>Identified total leakage inductance</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -  Min - [mH]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [mH]	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [mH]
<b>r1915</b>	<b>Stator inductance identified</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -  Min - [mH]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [mH]	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [mH]
<b>r1915[0...2]</b>	<b>Identified nominal stator inductance</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -  Min - [mH]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [mH]	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [mH]
<b>r1916[0...2]</b>	<b>Identified stator inductance 1</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -  Min - [mH]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [mH]	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [mH]
<b>r1917[0...2]</b>	<b>Identified stator inductance 2</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -  Min - [mH]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [mH]	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [mH]
<b>r1918[0...2]</b>	<b>Identified stator inductance 3</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -  Min - [mH]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [mH]	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [mH]

<b>r1919[0...2]</b>	<b>Identified stator inductance 4</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1 Factory setting - [mH]
	Min - [mH]	Max - [mH]	

<b>r1920[0...2]</b>	<b>Identified dynamic leakage inductance</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1 Factory setting - [mH]
	Min - [mH]	Max - [mH]	

<b>r1921[0...2]</b>	<b>Identified dynamic leakage inductance 1</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1 Factory setting - [mH]
	Min - [mH]	Max - [mH]	

<b>r1922[0...2]</b>	<b>Identified dynamic leakage inductance 2</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1 Factory setting - [mH]
	Min - [mH]	Max - [mH]	

<b>r1923[0...2]</b>	<b>Identified dynamic leakage inductance 3</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1 Factory setting - [mH]
	Min - [mH]	Max - [mH]	

<b>r1924[0...2]</b>	<b>Identified dynamic leakage inductance 4</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1 Factory setting - [mH]
	Min - [mH]	Max - [mH]	

<b>r1925</b>	<b>Threshold voltage identified</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -  Min - [Vrms]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [Vrms]	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [Vrms]
<b>r1925[0...2]</b>	<b>Identified threshold voltage</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -  Min - [Vrms]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [Vrms]	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [Vrms]
<b>r1926[0...2]</b>	<b>Identified effective valve lockout time</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -  Min - [ $\mu$ s]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [ $\mu$ s]	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [ $\mu$ s]
<b>r1927</b>	<b>Rotor resistance identified</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -  Min - [ohm]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [ohm]	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [ohm]
<b>r1927[0...2]</b>	<b>Identified rotor resistance</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -  Min - [ohm]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [ohm]	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [ohm]
<b>r1929[0...2]</b>	<b>Identified cable resistance</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -  Min - [ohm]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [ohm]	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [ohm]

<b>r1932[0...19]</b>	<b>d inductance identified</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -  Min - [mH]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [mH]	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [mH]
<b>r1933[0...19]</b>	<b>d inductance identification current</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -  Min - [Arms]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [Arms]	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [Arms]
<b>r1934[0...9]</b>	<b>q inductance identified</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -  Min - [mH]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [mH]	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [mH]
<b>r1934[0...9]</b>	<b>q inductance identified</b>		
VECTOR (n/M), VECTOR_AC (n/M)	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -  Min - [mH]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [mH]	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [mH]
<b>r1935[0...20]</b>	<b>Identification current</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -  Min - [Arms]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [Arms]	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [Arms]
<b>r1935[0...20]</b>	<b>Identification current</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -  Min - [Arms]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [Arms]	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [Arms]

<b>r1935[0...9]</b>	<b>q inductance identification current</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [Arms]	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]
<b>r1936</b>	<b>Magnetizing inductance identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -  <b>Min</b> - [mH]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [mH]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [mH]
<b>r1937[0...10]</b>	<b>Torque constant identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -  <b>Min</b> - [Nm/A]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 28_1 <b>Scaling:</b> -  <b>Max</b> - [Nm/A]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1  <b>Factory setting</b> - [Nm/A]
<b>r1937[0...10]</b>	<b>Force constant identified</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -  <b>Min</b> - [N/Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 29_1 <b>Scaling:</b> -  <b>Max</b> - [N/Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1  <b>Factory setting</b> - [N/Arms]
<b>r1938</b>	<b>Voltage constant identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -  <b>Min</b> - [Vrms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [Vrms]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [Vrms]
<b>r1938</b>	<b>Voltage constant identified</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -  <b>Min</b> - [Vrms s/m]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [Vrms s/m]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [Vrms s/m]

<b>r1939</b>	<b>Reluctance torque constant identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -  <b>Min</b> - [mH]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [mH]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [mH]

<b>r1939</b>	<b>Reluctance force constant identified</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -  <b>Min</b> - [mH]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [mH]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [mH]

<b>r1947</b>	<b>Optimum load angle identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -  <b>Min</b> - [°]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [°]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [°]

<b>r1948</b>	<b>Magnetizing current identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]

<b>r1950[0...19]</b>	<b>Voltage emulation error voltage values</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -  <b>Min</b> - [V]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [V]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [V]

<b>r1951[0...19]</b>	<b>Voltage emulation error current values</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -  <b>Min</b> - [A]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [A]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [A]

<b>p1952[0...n]</b>	<b>Voltage emulation error final value</b>		
SERVO (Ext M_ctrl), SERVO_840 (Ext M_ctrl), SERVO_AC (Ext M_ctrl)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [V]	<b>Max</b> 100.000 [V]	<b>Factory setting</b> 0.000 [V]
<b>p1953[0...n]</b>	<b>Voltage emulation error current offset</b>		
SERVO (Ext M_ctrl), SERVO_840 (Ext M_ctrl), SERVO_AC (Ext M_ctrl)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [A]	<b>Max</b> 100.000 [A]	<b>Factory setting</b> 0.000 [A]
<b>p1958[0...n]</b>	<b>Rotating measurement ramp-up/ramp-down time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -1.00 [s]	<b>Max</b> 999999.00 [s]	<b>Factory setting</b> -1.00 [s]
<b>p1958[0...n]</b>	<b>Moving measurement ramp-up/ramp-down time</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -1.00 [s]	<b>Max</b> 999999.00 [s]	<b>Factory setting</b> -1.00 [s]
<b>p1959[0...n]</b>	<b>Rotating measurement configuration</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 1110 1110 0111 bin
<b>p1959[0...n]</b>	<b>Moving measurement configuration</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 1110 1110 0111 bin

<b>p1959[0...n]</b>	<b>Rotating measurement configuration</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_ALL	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0001 1111 bin

<b>p1960</b>	<b>Rotating measurement selection</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -3	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p1960</b>	<b>Moving measurement selection</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -3	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p1960</b>	<b>Rotating measurement selection</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 4	<b>Factory setting</b> 0

<b>p1961</b>	<b>Saturation characteristic speed to determine</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 26 [%]	<b>Max</b> 75 [%]	<b>Factory setting</b> 40 [%]

<b>r1962[0...9]</b>	<b>Saturation characteristic magnetizing current identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]



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<b>r1962[0...4]</b>	<b>Saturation characteristic magnetizing current</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

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<b>r1963[0...9]</b>	<b>Saturation characteristic stator flux identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

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<b>r1963[0...4]</b>	<b>Saturation characteristic magnetizing inductance</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

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<b>r1964[0...4]</b>	<b>Saturation characteristic rotor flux</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

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<b>p1965</b>	<b>Speed_ctrl_opt speed</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 10 [%]	<b>Max</b> 75 [%]	<b>Factory setting</b> 40 [%]

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<b>p1967</b>	<b>Speed_ctrl_opt dynamic factor</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_ALL	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 1 [%]	<b>Max</b> 400 [%]	<b>Factory setting</b> 100 [%]

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<b>r1968</b>	<b>Speed_ctrl_opt dynamic factor actual</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> - [%]
	<b>Min</b> - [%]	<b>Max</b> - [%]	

<b>r1969</b>	<b>Moment of inertia identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 25_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1 <b>Factory setting:</b> - [kgm <sup>2</sup> ]
	<b>Min</b> - [kgm <sup>2</sup> ]	<b>Max</b> - [kgm <sup>2</sup> ]	

<b>r1969</b>	<b>High load inertia identified</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 27_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1 <b>Factory setting:</b> - [kg]
	<b>Min</b> - [kg]	<b>Max</b> - [kg]	

<b>r1969</b>	<b>Speed_ctrl_opt moment of inertia determined</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 25_1 <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1 <b>Factory setting:</b> - [kgm <sup>2</sup> ]
	<b>Min</b> - [kgm <sup>2</sup> ]	<b>Max</b> - [kgm <sup>2</sup> ]	

<b>r1970[0...1]</b>	<b>Speed_ctrl_opt vibration test vibration frequency determined</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> - [Hz]
	<b>Min</b> - [Hz]	<b>Max</b> - [Hz]	

<b>r1971[0...1]</b>	<b>Speed_ctrl_opt vibration test standard deviation determined</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> - [Hz]
	<b>Min</b> - [Hz]	<b>Max</b> - [Hz]	

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<b>r1972[0...1]</b>	<b>Speed_ctrl_opt vibration test number of periods determined</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r1973[0...1]</b>	<b>Encoder, pulse number identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r1973</b>	<b>Rotating measurement, encoder test pulse number determined</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r1979.0...11</b>	<b>BO: Speed_ctrl_opt status</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>p1980[0...n]</b>	<b>PolID technique</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_ALL	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	99	99

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<b>p1980[0...n]</b>	<b>PolID technique</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> MDS, p0130	<b>Func. diagram:</b> -
	<b>P-Group:</b> Motor identification	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> ASM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	1	10	4

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<b>p1981[0...n]</b>	<b>PoIID distance max</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: U, T Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -	Calculated: CALC_MOD_ALL Dynamic index: MDS, p0130 Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 10 [°]
	Min 0 [°]	Max 180 [°]	
<b>p1982[0...n]</b>	<b>PoIID selection</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: T Data type: Integer16 P-Group: Motor identification Not for motor type: -	Calculated: - Dynamic index: MDS, p0130 Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0
	Min 0	Max 2	
<b>p1982[0...n]</b>	<b>PoIID selection</b>		
VECTOR, VECTOR_AC	Can be changed: T Data type: Integer16 P-Group: Motor identification Not for motor type: -	Calculated: - Dynamic index: MDS, p0130 Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0
	Min 0	Max 2	
<b>p1983</b>	<b>PoIID test</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: U, T Data type: Unsigned16 P-Group: Motor identification Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0
	Min 0	Max 1	
<b>r1984</b>	<b>PoIID angular difference</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting - [°]
	Min - [°]	Max - [°]	
<b>r1985</b>	<b>PoIID saturation curve</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	Can be changed: - Data type: FloatingPoint32 P-Group: Motor identification Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting - [Arms]
	Min - [Arms]	Max - [Arms]	

<b>r1986</b>	<b>PolID saturation characteristic 2</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r1987</b>	<b>PolID trigger characteristic</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]
<b>p1990</b>	<b>Encoder adjustment, determine angular commutation offset</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>p1990</b>	<b>Encoder adjustment, determine angular commutation offset</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> ASM	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 0
<b>p1991[0...n]</b>	<b>Motor changeover, angular commutation correction</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -180 [°]	<b>Max</b> 180 [°]	<b>Factory setting</b> 0 [°]
<b>r1992</b>	<b>PolID diagnostics</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r1992</b>	<b>PolID diagnostics</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -
<b>p1993[0...n]</b>	<b>PolID motion-based current</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -  <b>Min</b> 0.00 [Arms]	<b>Calculated:</b> CALC_MOD_EQU <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 20000.00 [Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [Arms]
<b>p1994[0...n]</b>	<b>PolID motion-based rise time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -  <b>Min</b> 0 [ms]	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 2500 [ms]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 100 [ms]
<b>p1995[0...n]</b>	<b>PolID motion-based gain</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -  <b>Min</b> 0.000 [Nms/rad]	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 17_1 <b>Scaling:</b> -  <b>Max</b> 999999.000 [Nms/rad]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 0.300 [Nms/rad]
<b>p1995[0...n]</b>	<b>PolID motion-based gain</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -  <b>Min</b> 0.000 [Ns/m]	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 24_2 <b>Scaling:</b> -  <b>Max</b> 999999.000 [Ns/m]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 10.000 [Ns/m]
<b>p1996[0...n]</b>	<b>PolID motion-based integral time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -  <b>Min</b> 0.0 [ms]	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 500.0 [ms]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 2.0 [ms]

<b>p1997[0...n]</b>	<b>PolID motion-based smoothing time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [ms]	<b>Max</b> 50.0 [ms]	<b>Factory setting</b> 0.0 [ms]

<b>p1999[0...n]</b>	<b>Ang. commutation offset calibr. and PolID scaling</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 10 [%]	<b>Max</b> 5000 [%]	<b>Factory setting</b> 100 [%]

<b>p2000</b>	<b>Reference frequency</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.10 [Hz]	<b>Max</b> 1000.00 [Hz]	<b>Factory setting</b> 50.00 [Hz]

<b>p2000</b>	<b>Reference speed reference frequency</b>		
ENC, ENC_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 6.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 3000.00 [rpm]

<b>p2000</b>	<b>Reference velocity, reference frequency</b>		
ENC (Lin_enc), ENC_840 (Lin_enc)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.60 [m/min]	<b>Max</b> 600.00 [m/min]	<b>Factory setting</b> 120.00 [m/min]

<b>p2000</b>	<b>Reference speed reference frequency</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 6.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 3000.00 [rpm]

<b>p2000</b>	<b>Reference velocity, reference frequency</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.60 [m/min]	<b>Max</b> 600.00 [m/min]	<b>Factory setting</b> 120.00 [m/min]

<b>p2000</b>	<b>Reference speed reference frequency</b>		
TM41	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 6.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 3000.00 [rpm]

<b>p2000</b>	<b>Reference speed reference frequency</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 6.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 3000.00 [rpm]

<b>p2001</b>	<b>Reference voltage</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 10 [Vrms]	<b>Max</b> 100000 [Vrms]	<b>Factory setting</b> 1000 [Vrms]

<b>p2002</b>	<b>Reference current</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.10 [Arms]	<b>Max</b> 100000.00 [Arms]	<b>Factory setting</b> 100.00 [Arms]



<b>p2003</b>	<b>Reference torque</b>		
SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> 7_2 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.01 [Nm]	<b>Max</b> 20000000.00 [Nm]	<b>Factory setting</b> 1.00 [Nm]
<b>p2003</b>	<b>Reference force</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> 8_2 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.01 [N]	<b>Max</b> 20000000.00 [N]	<b>Factory setting</b> 100.00 [N]
<b>r2004</b>	<b>Reference power</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 14_10 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [kW]	<b>Max</b> - [kW]	<b>Factory setting</b> - [kW]
<b>p2005</b>	<b>Reference angle</b>		
SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 90.00 [°]	<b>Max</b> 180.00 [°]	<b>Factory setting</b> 90.00 [°]
<b>p2006</b>	<b>Reference temp</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM120, TM150, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 50.00 [°C]	<b>Max</b> 300.00 [°C]	<b>Factory setting</b> 100.00 [°C]

<b>p2007</b>	<b>Reference acceleration</b>		
SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.01 [rev/s <sup>2</sup> ]	<b>Max</b> 500000.00 [rev/s <sup>2</sup> ]	<b>Factory setting</b> 0.01 [rev/s <sup>2</sup> ]

<b>p2007</b>	<b>Reference acceleration</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> 22_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.01 [m/s <sup>2</sup> ]	<b>Max</b> 10000.00 [m/s <sup>2</sup> ]	<b>Factory setting</b> 0.01 [m/s <sup>2</sup> ]

<b>r2019[0...7]</b>	<b>Comm int error statistics</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p2020</b>	<b>Field bus interface baud rate</b>		
CU_S_AC_DP, CU_S120_DP	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 4	<b>Max</b> 8	<b>Factory setting</b> 8

<b>p2021</b>	<b>Field bus interface address</b>		
CU_S_AC_DP, CU_S120_DP	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 31	<b>Factory setting</b> 0

<b>p2022</b>	<b>Field bus int USS PZD no.</b>		
CU_S_AC_DP, CU_S120_DP	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 16	<b>Factory setting</b> 2

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<b>p2023</b>	<b>Field bus int USS PKW no.</b>		
CU_S_AC_DP, CU_S120_DP	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 127	<b>Factory setting</b> 127

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<b>r2029[0...7]</b>	<b>Field bus int error statistics</b>		
CU_S_AC_DP, CU_S120_DP	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>p2030</b>	<b>Field bus int protocol selection</b>		
CU_S_AC_DP, CU_S120_DP	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 3	<b>Max</b> 6	<b>Factory setting</b> 3

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<b>r2032</b>	<b>Master control, control word effective</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r2032</b>	<b>Master control, control word effective</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r2032</b>	<b>Master control, control word effective</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>p2035</b>	<b>Fieldbus interface USS PIV drive object number</b>		
CU_S_AC_DP, CU_S120_DP	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 62	<b>Factory setting</b> 2

<b>p2037</b>	<b>IF1 PROFIdrive STW1.10 = 0 mode</b>		
A_INF, A_INF_840, B_INF, B_INF_840, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 0

<b>p2038</b>	<b>IF1 PROFIdrive STW/ZSW interface mode</b>		
SERVO_840	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 1	<b>Factory setting</b> 1

<b>p2038</b>	<b>IF1 PROFIdrive STW/ZSW interface mode</b>		
SERVO_840 (EPOS, Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 1	<b>Factory setting</b> 1

<b>p2038</b>	<b>IF1 PROFIdrive STW/ZSW interface mode</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 0

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<b>p2038</b>	<b>IF1 PROFIdrive STW/ZSW interface mode</b>		
SERVO (EPOS, Pos ctrl), SERVO_AC (EPOS, Pos ctrl), VECTOR (EPOS, Pos ctrl), VECTOR_AC (EPOS, Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 0	<b>Factory setting</b> 0

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<b>p2039</b>	<b>Select debug monitor interface</b>		
CU_I_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 1

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<b>p2039</b>	<b>Select debug monitor interface</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 0

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<b>p2040</b>	<b>COMM INT monitoring time</b>		
CU_I_840, CU_LINK, CU_NX_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 1999999 [ms]	<b>Factory setting</b> 20 [ms]

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<b>p2040</b>	<b>Fieldbus interface monitoring time</b>		
CU_S_AC_DP, CU_S120_DP	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 1999999 [ms]	<b>Factory setting</b> 100 [ms]

<b>p2042</b>	<b>PROFIBUS Ident Number</b>		
CU_S_AC_DP, CU_S120_DP	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>r2043.0...2</b>	<b>BO: IF1 PROFIdrive PZD state</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2410 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p2044</b>	<b>IF1 PROFIdrive fault delay</b>		
A_INF, A_INF_840, B_INF, B_INF_840, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2410 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [s]	<b>Max</b> 100 [s]	<b>Factory setting</b> 0 [s]

<b>p2045</b>	<b>CI: PB/PN clock synchronous controller sign-of-life signal source</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2410 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2047</b>	<b>PROFIBUS additional monitoring time</b>		
CU_S_AC_DP, CU_S120_DP	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2410 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 20000 [ms]	<b>Factory setting</b> 0 [ms]

<b>p2048</b>	<b>IF1 PROFIdrive PZD sampling time</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1.00 [ms]	<b>Max</b> 16.00 [ms]	<b>Factory setting</b> 4.00 [ms]
<b>r2050[0...9]</b>	<b>CO: IF1 PROFIdrive PZD receive word</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r2050[0...19]</b>	<b>CO: IF1 PROFIdrive PZD receive word</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r2050[0...3]</b>	<b>CO: IF1 PROFIdrive PZD receive word</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2440, 2468 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r2050[0...19]</b>	<b>CO: IF1 PROFIdrive PZD receive word</b>		
SERVO, SERVO_840, SERVO_AC, TM41	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2440, 2468 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r2050[0...4]</b>	<b>CO: IF1 PROFIdrive PZD receive word</b>		
TB30, TM120, TM150, TM15DI_DO, TM31	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1

	Min	Max	Factory setting
<b>r2050[0...31]</b>			
<b>CO: IF1 PROFIdrive PZD receive word</b>			
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2440, 2468 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p2051[0...9]</b>			
<b>CI: IF1 PROFIdrive PZD send word</b>			
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p2051[0...24]</b>			
<b>CI: IF1 PROFIdrive PZD send word</b>			
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p2051[0...11]</b>			
<b>CI: IF1 PROFIdrive PZD send word</b>			
ENC, ENC_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2470 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p2051[0...27]</b>			
<b>CI: IF1 PROFIdrive PZD send word</b>			
SERVO, SERVO_840, SERVO_AC, TM41	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2470 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0



<b>p2051[0...4]</b>	<b>CI: IF1 PROFIdrive PZD send word</b>		
TB30, TM120, TM150, TM15DI_DO, TM31	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p2051[0...31]</b>	<b>CI: IF1 PROFIdrive PZD send word</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2470 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>r2053[0...9]</b>	<b>IF1 PROFIdrive diagnostics PZD send word</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r2053[0...24]</b>	<b>IF1 PROFIdrive diagnostics PZD send word</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r2053[0...11]</b>	<b>IF1 PROFIdrive diagnostics PZD send word</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2450, 2470 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r2053[0...27]</b>	<b>IF1 PROFIdrive diagnostics PZD send word</b>		
SERVO, SERVO_840, SERVO_AC, TM41	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2450, 2470 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r2053[0...4]</b>	<b>IF1 PROFIdrive diagnostics PZD send word</b>		
TB30, TM120, TM150, TM15DI_DO, TM31	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>r2053[0...31]</b>	<b>IF1 PROFIdrive diagnostics PZD send word</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2450, 2470 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>r2054</b>	<b>COMM INT state</b>		
CU_I_840, CU_LINK, CU_NX_840	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 255	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>r2054</b>	<b>PROFIBUS status</b>		
CU_S_AC_DP, CU_S120_DP	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 4	<b>Access level:</b> 3 <b>Func. diagram:</b> 2410 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>r2055[0...2]</b>	<b>PROFIBUS diagnostics standard</b>		
CU_S_AC_DP, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2410 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>r2057</b>	<b>PROFIBUS address switch diagnostics</b>		
CU_S_AC_DP, CU_S120_DP	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2410 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

**r2058[0...139] COMM INT receive configuration data**

CU_I_840, CU_LINK, CU_NX_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

**r2059[0...7] COMM INT identification data**

CU_I_840, CU_LINK, CU_NX_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

**r2060[0...2] CO: IF1 PROFIdrive PZD receive double word**

ENC, ENC_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2440, 2468
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> 4000H	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

**r2060[0...18] CO: IF1 PROFIdrive PZD receive double word**

SERVO, SERVO_840, SERVO_AC, TM41	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2440, 2468
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> 4000H	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

**r2060[0...30] CO: IF1 PROFIdrive PZD receive double word**

VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2440, 2468
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> 4000H	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

**p2061[0...10] CI: IF1 PROFIdrive PZD send double word**

ENC, ENC_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Integer32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2470
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> 4000H	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>p2061[0...26]</b>	<b>CI: IF1 PROFIdrive PZD send double word</b>		
SERVO, SERVO_840, SERVO_AC, TM41	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2470 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2061[0...30]</b>	<b>CI: IF1 PROFIdrive PZD send double word</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2470 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>r2063[0...10]</b>	<b>IF1 PROFIdrive diagnostics PZD send double word</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2450, 2470 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r2063[0...26]</b>	<b>IF1 PROFIdrive diagnostics PZD send double word</b>		
SERVO, SERVO_840, SERVO_AC, TM41	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2450, 2470 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r2063[0...30]</b>	<b>IF1 PROFIdrive diagnostics PZD send double word</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2450, 2470 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r2064[0...7]</b>	<b>PB/PN diagnostics clock cycle synchronism</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2410 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r2065</b>	<b>PB/PN controller sign of life diagnostics</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2410 <b>Unit selection:</b> - <b>Expert list:</b> 1

<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
-	-	-

<b>r2067[0...1]</b>	<b>IF1 PZD maximum interconnected</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1

<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
-	-	-

<b>r2074[0...9]</b>	<b>IF1 PROFIdrive diagnostics bus address PZD receive</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1

<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
-	-	-

<b>r2074[0...19]</b>	<b>IF1 PROFIdrive diagnostics bus address PZD receive</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, SERVO, SERVO_840, SERVO_AC, TM41	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1

<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
-	-	-

<b>r2074[0...3]</b>	<b>IF1 PROFIdrive diagnostics bus address PZD receive</b>		
ENC, ENC_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r2074[0...4]</b>	<b>IF1 PROFIdrive diagnostics bus address PZD receive</b>		
TB30, TM120, TM150, TM15DI_DO, TM31	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r2074[0...31]</b>	<b>IF1 PROFIdrive diagnostics bus address PZD receive</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r2075[0...9]</b>	<b>IF1 PROFIdrive diagnostics telegram offset PZD receive</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r2075[0...19]</b>	<b>IF1 PROFIdrive diagnostics telegram offset PZD receive</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, SERVO, SERVO_840, SERVO_AC, TM41	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
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<b>r2075[0...3]</b>	<b>IF1 PROFIdrive diagnostics telegram offset PZD receive</b>		
ENC, ENC_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r2075[0...4]</b>	<b>IF1 PROFIdrive diagnostics telegram offset PZD receive</b>		
TB30, TM120, TM150, TM15DI_DO, TM31	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r2075[0...31]</b>	<b>IF1 PROFIdrive diagnostics telegram offset PZD receive</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r2076[0...9]</b>	<b>IF1 PROFIdrive diagnostics telegram offset PZD send</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r2076[0...24]</b>	<b>IF1 PROFIdrive diagnostics telegram offset PZD send</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r2076[0...11]</b>	<b>IF1 PROFIdrive diagnostics telegram offset PZD send</b>		
ENC, ENC_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r2076[0...27]</b>	<b>IF1 PROFIdrive diagnostics telegram offset PZD send</b>		
SERVO, SERVO_840, SERVO_AC, TM41	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r2076[0...4]</b>	<b>IF1 PROFIdrive diagnostics telegram offset PZD send</b>		
TB30, TM120, TM150, TM15DI_DO, TM31	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r2076[0...31]</b>	<b>IF1 PROFIdrive diagnostics telegram offset PZD send</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r2077[0...15]</b>	<b>PROFIBUS diagnostics peer-to-peer data transfer addresses</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned8	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>p2079</b>	<b>IF1 PROFIdrive PZD telegram selection extended</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Communications	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	370	999	999



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<b>p2079</b>	<b>IF1 PROFIdrive PZD telegram selection extended</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 390	<b>Max</b> 999	<b>Factory setting</b> 999

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<b>p2079</b>	<b>IF1 PROFIdrive PZD telegram selection extended</b>		
ENC, ENC_840	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 81	<b>Max</b> 999	<b>Factory setting</b> 999

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<b>p2079</b>	<b>IF1 PROFIdrive PZD telegram selection extended</b>		
SERVO_840	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 999	<b>Factory setting</b> 136

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<b>p2079</b>	<b>IF1 PROFIdrive PZD telegram selection extended</b>		
SERVO, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 999	<b>Factory setting</b> 999

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<b>p2079</b>	<b>IF1 PROFIdrive PZD telegram selection extended</b>		
SERVO (EPOS, Pos ctrl, Spin_diag), SERVO_840 (EPOS, Pos ctrl, Spin_diag), SERVO_AC (EPOS, Pos ctrl, Spin_diag), VECTOR (EPOS, n/M, Pos ctrl), VECTOR_AC (EPOS, n/M, Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 7	<b>Max</b> 999	<b>Factory setting</b> 999

<b>p2079</b>	<b>IF1 PROFIdrive PZD telegram selection extended</b>		
SERVO (Pos ctrl, Spin_diag), SERVO_840 (Pos ctrl, Spin_diag), SERVO_AC (Pos ctrl, Spin_diag), VECTOR (n/M, Pos ctrl), VECTOR_AC (n/M, Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 999	<b>Max</b> 999	<b>Factory setting</b> 999

<b>p2079</b>	<b>IF1 PROFIdrive PZD telegram selection extended</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 999	<b>Factory setting</b> 999

<b>p2079</b>	<b>IF1 PROFIdrive PZD telegram selection extended</b>		
TM41	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 3	<b>Max</b> 999	<b>Factory setting</b> 999

<b>p2079</b>	<b>IF1 PROFIdrive PZD telegram selection extended</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 999	<b>Factory setting</b> 999

<b>p2079</b>	<b>IF1 PROFIdrive PZD telegram selection extended</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 999	<b>Factory setting</b> 999

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<b>p2080[0...15]</b>	<b>BI: Binector-connector converter status word 1</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2472 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p2081[0...15]</b>	<b>BI: Binector-connector converter status word 2</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2472 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p2082[0...15]</b>	<b>BI: Binector-connector converter status word 3</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2472 <b>Unit selection:</b> - <b>Expert list:</b> 1

	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>p2083[0...15]</b>	<b>BI: Binector-connector converter status word 4</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2472 <b>Unit selection:</b> - <b>Expert list:</b> 1

	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>p2084[0...15]</b>	<b>BI: Binector-connector converter status word 5</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2472 <b>Unit selection:</b> - <b>Expert list:</b> 1

	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>p2088[0...4]</b>	<b>Invert binector-connector converter status word</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2472 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 bin
<b>r2089[0...4]</b>	<b>CO: Send binector-connector converter status word</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2472 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r2090.0...15</b>	<b>BO: IF1 PROFIBUS PZD1 receive bit-serial</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2468 <b>Unit selection:</b> - <b>Expert list:</b> 1

	Min	Max	Factory setting
	-	-	-
<b>r2091.0...15</b>	<b>BO: IF1 PROFIdrive PZD2 receive bit-serial</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2468 <b>Unit selection:</b> - <b>Expert list:</b> 1
	Min	Max	Factory setting
	-	-	-
<b>r2092.0...15</b>	<b>BO: IF1 PROFIdrive PZD3 receive bit-serial</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2468 <b>Unit selection:</b> - <b>Expert list:</b> 1
	Min	Max	Factory setting
	-	-	-
<b>r2093.0...15</b>	<b>BO: IF1 PROFIdrive PZD4 receive bit-serial</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2468 <b>Unit selection:</b> - <b>Expert list:</b> 1
	Min	Max	Factory setting
	-	-	-

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<b>r2094.0...15</b>	<b>BO: Connector-binector converter binector output</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2468 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r2095.0...15</b>	<b>BO: Connector-binector converter binector output</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2468 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>p2098[0...1]</b>	<b>Inverter connector-binector converter binector output</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2468 <b>Unit selection:</b> - <b>Expert list:</b> 1

	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0000 0000 0000 0000 bin

<b>p2099[0...1]</b>	<b>CI: Connector-binector converter signal source</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2468 <b>Unit selection:</b> - <b>Expert list:</b> 1

	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>p2100[0...19]</b>	<b>Setting the fault number for fault response</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, HUB, S_INF, S_INF_840, SERVO, SERVO_AC, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1750, 8075 <b>Unit selection:</b> - <b>Expert list:</b> 1

	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	65535	0

<b>p2100[0...19]</b>	<b>Setting the fault number for fault response</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1750, 8075 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	65535	[0] 7841 [1...19] 0



**p2101[0...19] Setting the fault response**

A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1750, 8075 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 0

**p2101[0...19] Setting the fault response**

CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, HUB, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM54F_MA, TM54F_SL	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1750, 8075 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 0	<b>Factory setting</b> 0

**p2101[0...19] Setting the fault response**

SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1750, 8075 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 7	<b>Factory setting</b> [0] 3 [1...19] 4

**p2101[0...19] Setting the fault response**

SERVO, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1750, 8075 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 7	<b>Factory setting</b> 0

**p2102 BI: Acknowledge all faults**

CU_I_840, CU_NX_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2546, 8060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2090.7

<b>p2102</b>	<b>BI: Acknowledge all faults</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2546, 8060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2103[0...n]</b>	<b>BI: 1. Acknowledge faults</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2441, 2442, 2443, 2447, 2475, 2546, 9220, 9677, 9678 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2103</b>	<b>BI: 1. Acknowledge faults</b>		
CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, HUB, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM54F_MA, TM54F_SL	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2104[0...n]</b>	<b>BI: 2. Acknowledge faults</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2546, 8060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2104</b>	<b>BI: 2. Acknowledge faults</b>		
CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, HUB, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM54F_MA, TM54F_SL	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p2105[0...n]</b>	<b>BI: 3. Acknowledge faults</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2546, 8060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p2105</b>	<b>BI: 3. Acknowledge faults</b>		
CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, HUB, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM54F_MA, TM54F_SL	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p2106[0...n]</b>	<b>BI: External fault 1</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2546 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1

<b>p2106</b>	<b>BI: External fault 1</b>		
CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, HUB, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM54F_MA, TM54F_SL	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1
<b>p2107[0...n]</b>	<b>BI: External fault 2</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2546 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1
<b>p2107</b>	<b>BI: External fault 2</b>		
CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, HUB, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM54F_MA, TM54F_SL	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1
<b>p2108[0...n]</b>	<b>BI: External fault 3</b>		
A_INF_840, B_INF_840, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2546 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>p2108[0...n]</b>	<b>BI: External fault 3</b>		
A_INF, B_INF, S_INF, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2546 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1
<b>p2108</b>	<b>BI: External fault 3</b>		
CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, HUB, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM54F_MA, TM54F_SL	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1
<b>r2109[0...63]</b>	<b>Fault time removed in milliseconds</b>		
All objects	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1750, 8060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [ms]	<b>Max</b> - [ms]	<b>Factory setting</b> - [ms]
<b>r2110[0...63]</b>	<b>Alarm number</b>		
All objects	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8065 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p2111</b>	<b>Alarm counter</b>		
All objects	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1750, 8065 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0

<b>p2112[0...n]</b>	<b>BI: External alarm 1</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2546 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1

<b>p2112</b>	<b>BI: External alarm 1</b>		
CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, HUB, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM54F_MA, TM54F_SL	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1

<b>r2114[0...1]</b>	<b>System runtime total</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>p2116[0...n]</b>	<b>BI: External alarm 2</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2546 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1

<b>p2116</b>	<b>BI: External alarm 2</b>		
CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, HUB, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM54F_MA, TM54F_SL	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1
<b>p2117[0...n]</b>	<b>BI: External alarm 3</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2546 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1
<b>p2117</b>	<b>BI: External alarm 3</b>		
CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, HUB, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM54F_MA, TM54F_SL	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1
<b>p2118[0...19]</b>	<b>Sets the message number for message type.</b>		
All objects	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1750, 8075 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	65535	0

<b>p2119[0...19]</b>	<b>Setting the message type</b>		
All objects	Can be changed: U, T Data type: Integer16 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 1750, 8075 Unit selection: - Expert list: 1
	Min 1	Max 3	Factory setting 1

<b>r2120</b>	<b>CO: Sum of fault and alarm buffer changes</b>		
All objects	Can be changed: - Data type: Unsigned16 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: 8065 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r2121</b>	<b>CO: Counter, alarm buffer changes</b>		
All objects	Can be changed: - Data type: Unsigned16 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 8065 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r2122[0...63]</b>	<b>Alarm code</b>		
All objects	Can be changed: - Data type: Unsigned16 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: 1750, 8065 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r2123[0...63]</b>	<b>Alarm time received in milliseconds</b>		
All objects	Can be changed: - Data type: Unsigned32 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 1750, 8065 Unit selection: - Expert list: 1
	Min - [ms]	Max - [ms]	Factory setting - [ms]

<b>r2124[0...63]</b>	<b>Alarm value</b>		
All objects	Can be changed: - Data type: Integer32 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 1750, 8065 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -



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<b>r2125[0...63]</b>	<b>Alarm time removed in milliseconds</b>		
All objects	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1750, 8065
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [ms]	<b>Max</b> - [ms]	<b>Factory setting</b> - [ms]

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<b>p2126[0...19]</b>	<b>Setting fault number for acknowledge mode</b>		
All objects	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1750, 8075
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0

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<b>p2127[0...19]</b>	<b>Sets acknowledgement mode</b>		
All objects	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1750, 8075
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 3	<b>Factory setting</b> 1

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<b>p2128[0...15]</b>	<b>Selecting fault/alarm code for trigger</b>		
All objects	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1750, 8070
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0

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<b>r2129.0...15</b>	<b>CO/BO: Trigger word for faults and alarms</b>		
All objects	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1530, 8070
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r2130[0...63]</b>	<b>Fault time received in days</b>		
All objects	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8060
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r2131</b>	<b>CO: Actual fault code</b>		
All objects	Can be changed: - Data type: Unsigned16 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 8060 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r2132</b>	<b>CO: Actual alarm code</b>		
All objects	Can be changed: - Data type: Unsigned16 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 8065 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r2133[0...63]</b>	<b>Fault value for float values</b>		
All objects	Can be changed: - Data type: FloatingPoint32 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 8060 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r2134[0...63]</b>	<b>Alarm value for float values</b>		
All objects	Can be changed: - Data type: FloatingPoint32 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 8065 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r2135.0...15</b>	<b>CO/BO: Status word faults/alarms 2</b>		
All objects	Can be changed: - Data type: Unsigned16 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: 1530, 2548 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r2136[0...63]</b>	<b>Fault time removed in days</b>		
All objects	Can be changed: - Data type: Unsigned16 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 8060 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

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<b>r2138.7...15</b>	<b>CO/BO: Control word faults/alarms</b>		
All objects	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1530, 2546
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r2139.0...12</b>	<b>CO/BO: Status word faults/alarms 1</b>		
All objects	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1530, 2548
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>p2140[0...n]</b>	<b>Hysteresis speed 2</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8010
	<b>P-Group:</b> Messages	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 300.00 [rpm]	<b>Factory setting</b> 90.00 [rpm]

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<b>p2140[0...n]</b>	<b>Hysteresis velocity 2</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8010
	<b>P-Group:</b> Messages	<b>Units group:</b> 4_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 10.00 [m/min]	<b>Factory setting</b> 0.90 [m/min]

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<b>p2141[0...n]</b>	<b>Speed threshold 1</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8010
	<b>P-Group:</b> Messages	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 5.00 [rpm]

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<b>p2141[0...n]</b>	<b>Velocity threshold value 1</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8010
	<b>P-Group:</b> Messages	<b>Units group:</b> 4_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1

	<b>Min</b> 0.00 [m/min]	<b>Max</b> 1000.00 [m/min]	<b>Factory setting</b> 0.05 [m/min]
<b>p2142[0...n]</b> SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Hysteresis speed 1</b>  <b>Can be changed:</b> U, T  <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -  <b>Min</b> 0.00 [rpm]	<b>Calculated:</b> CALC_MOD_LIM_REF  <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -  <b>Max</b> 300.00 [rpm]	<b>Access level:</b> 3  <b>Func. diagram:</b> 8010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 2.00 [rpm]
<b>p2142[0...n]</b> SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Hysteresis velocity 1</b>  <b>Can be changed:</b> U, T  <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -  <b>Min</b> 0.00 [m/min]	<b>Calculated:</b> CALC_MOD_LIM_REF  <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -  <b>Max</b> 10.00 [m/min]	<b>Access level:</b> 3  <b>Func. diagram:</b> 8010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 0.02 [m/min]
<b>p2144[0...n]</b> SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>BI: Motor stall monitoring enable (negated)</b>  <b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> - <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8012 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0
<b>r2145[0...63]</b> All objects	<b>Alarm time received in days</b>  <b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8065 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -
<b>r2146[0...63]</b> All objects	<b>Alarm time removed in days</b>  <b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8065 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>p2147</b>	<b>Delete fault buffer of all drive objects</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 8060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>p2148[0...n]</b>	<b>BI: RFG active</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8011 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p2149[0...n]</b>	<b>Monitoring configuration</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8010, 8013 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 bin
<b>p2149[0...n]</b>	<b>Monitoring configuration</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8010, 8013 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0001 bin
<b>p2150[0...n]</b>	<b>Hysteresis speed 3</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 300.00 [rpm]	<b>Factory setting</b> 2.00 [rpm]
<b>p2150[0...n]</b>	<b>Hysteresis velocity 3</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1

	<b>Min</b> 0.00 [m/min]	<b>Max</b> 3.00 [m/min]	<b>Factory setting</b> 0.02 [m/min]
<b>p2151[0...n]</b>	<b>CI: Speed setpoint for messages/signals</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 8010
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2000	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1438[0]
<b>p2151[0...n]</b>	<b>CI: Velocity setpoint for messages/signals</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 8010
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2000	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1438[0]
<b>p2151[0...n]</b>	<b>CI: Speed setpoint for messages/signals</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> CDS, p0170	<b>Func. diagram:</b> 8010
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2000	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1170[0]
<b>p2153[0...n]</b>	<b>Speed actual value filter time constant</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8010
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 1000000 [ms]	<b>Factory setting</b> 0 [ms]
<b>p2153[0...n]</b>	<b>Velocity actual value filter time constant</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8010
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 1000000 [ms]	<b>Factory setting</b> 0 [ms]

<b>p2154[0...n]</b>	<b>CI: Speed setpoint 2</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 8010 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> -	<b>Max</b> -	
<b>p2154[0...n]</b>	<b>CI: Velocity setpoint 2</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 8010 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> -	<b>Max</b> -	
<b>p2155[0...n]</b>	<b>Speed threshold 2</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 900.00 [rpm]
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	
<b>p2155[0...n]</b>	<b>Velocity threshold value 2</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 9.00 [m/min]
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 1000.00 [m/min]	
<b>p2156[0...n]</b>	<b>On delay, comparison value reached</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8010 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.0 [ms]
	<b>Min</b> 0.0 [ms]	<b>Max</b> 10000.0 [ms]	
<b>p2161[0...n]</b>	<b>Speed threshold 3</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1

	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 5.00 [rpm]
<b>p2161[0...n]</b>	<b>Velocity threshold value 3</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8010
	<b>P-Group:</b> Messages	<b>Units group:</b> 4_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 1000.00 [m/min]	<b>Factory setting</b> 0.05 [m/min]
<b>p2162[0...n]</b>	<b>Hysteresis speed n_act &gt; n_max</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8010
	<b>P-Group:</b> Messages	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 60000.00 [rpm]	<b>Factory setting</b> 0.00 [rpm]
<b>p2162[0...n]</b>	<b>Hysteresis velocity v_act &gt; v_max</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8010
	<b>P-Group:</b> Messages	<b>Units group:</b> 4_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 1000.00 [m/min]	<b>Factory setting</b> 6.00 [m/min]
<b>p2163[0...n]</b>	<b>Speed threshold 4</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8010
	<b>P-Group:</b> Messages	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 90.00 [rpm]



<b>p2163[0...n]</b>	<b>Velocity threshold value 4</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8010
	<b>P-Group:</b> Messages	<b>Units group:</b> 4_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 1000.00 [m/min]	<b>Factory setting</b> 0.90 [m/min]
<b>p2164[0...n]</b>	<b>Hysteresis speed 4</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8010
	<b>P-Group:</b> Messages	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 200.00 [rpm]	<b>Factory setting</b> 2.00 [rpm]
<b>p2164[0...n]</b>	<b>Hysteresis velocity 4</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8010
	<b>P-Group:</b> Messages	<b>Units group:</b> 4_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 10.00 [m/min]	<b>Factory setting</b> 0.02 [m/min]
<b>p2166[0...n]</b>	<b>Off delay n_act = n_set</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8010
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [ms]	<b>Max</b> 10000.0 [ms]	<b>Factory setting</b> 200.0 [ms]
<b>p2166[0...n]</b>	<b>Off delay v_act = v_set</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8010
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [ms]	<b>Max</b> 10000.0 [ms]	<b>Factory setting</b> 200.0 [ms]
<b>p2167[0...n]</b>	<b>Switch-on delay n_act = n_set</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8010
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1

	<b>Min</b> 0.0 [ms]	<b>Max</b> 10000.0 [ms]	<b>Factory setting</b> 200.0 [ms]
<b>p2167[0...n]</b> SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>On delay v_act = v_set</b>  <b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -  <b>Min</b> 0.0 [ms]	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 10000.0 [ms]	<b>Access level:</b> 2 <b>Func. diagram:</b> 8010 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 200.0 [ms]
<b>r2169</b> SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>CO: Actual speed smoothed signals</b>  <b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -  <b>Min</b> - [rpm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000  <b>Max</b> - [rpm]	<b>Access level:</b> 2 <b>Func. diagram:</b> 1750, 8010, 8012, 8013 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [rpm]
<b>r2169</b> SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>CO: Actual velocity smoothed signals</b>  <b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -  <b>Min</b> - [m/min]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000  <b>Max</b> - [m/min]	<b>Access level:</b> 2 <b>Func. diagram:</b> 1750, 8010, 8012, 8013 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [m/min]
<b>p2174[0...n]</b> SERVO, SERVO_840, SERVO_AC	<b>Torque threshold value 1</b>  <b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -  <b>Min</b> 0.00 [Nm]	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> -  <b>Max</b> 20000000.00 [Nm]	<b>Access level:</b> 2 <b>Func. diagram:</b> 8012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 5.13 [Nm]
<b>p2174[0...n]</b> SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Force threshold value 1</b>  <b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -  <b>Min</b> 0.00 [N]	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 8_1 <b>Scaling:</b> -  <b>Max</b> 20000000.00 [N]	<b>Access level:</b> 2 <b>Func. diagram:</b> 8012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 1000.00 [N]

<b>p2174[0...n]</b>	<b>Torque threshold value 1</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Nm]	<b>Max</b> 20000000.00 [Nm]	<b>Factory setting</b> 5.13 [Nm]
<b>p2175[0...n]</b>	<b>Motor blocked speed threshold</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 120.00 [rpm]
<b>p2175[0...n]</b>	<b>Motor blocked, velocity threshold</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 1000.00 [m/min]	<b>Factory setting</b> 1.20 [m/min]
<b>p2175[0...n]</b>	<b>Motor blocked speed threshold</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 120.00 [rpm]
<b>p2177[0...n]</b>	<b>Motor blocked delay time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 65.000 [s]	<b>Factory setting</b> 1.000 [s]

<b>p2177[0...n]</b>	<b>Motor blocked delay time</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8012
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 65.000 [s]	<b>Factory setting</b> 1.000 [s]
<b>p2178[0...n]</b>	<b>Motor stalled delay time</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_REG	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8012
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 10.000 [s]	<b>Factory setting</b> 0.010 [s]
<b>p2181[0...n]</b>	<b>Load monitoring response</b>		
SERVO (Ext msg), SERVO_840 (Ext msg), SERVO_AC (Ext msg), VECTOR (Ext msg), VECTOR_AC (Ext msg)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8013
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 6	<b>Factory setting</b> 0
<b>p2182[0...n]</b>	<b>Load monitoring velocity threshold 1</b>		
SERVO (Ext msg, Lin), SERVO_840 (Ext msg, Lin), SERVO_AC (Ext msg, Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8013
	<b>P-Group:</b> Messages	<b>Units group:</b> 4_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 1000.00 [m/min]	<b>Factory setting</b> 0.05 [m/min]
<b>p2182[0...n]</b>	<b>Load monitoring speed threshold value 1</b>		
SERVO (Ext msg), SERVO_840 (Ext msg), SERVO_AC (Ext msg), VECTOR (Ext msg), VECTOR_AC (Ext msg)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8013
	<b>P-Group:</b> Messages	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 150.00 [rpm]

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<b>p2183[0...n]</b>	<b>Load monitoring velocity threshold 2</b>		
SERVO (Ext msg, Lin), SERVO_840 (Ext msg, Lin), SERVO_AC (Ext msg, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8013 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 1000.00 [m/min]	<b>Factory setting</b> 0.05 [m/min]

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<b>p2183[0...n]</b>	<b>Load monitoring speed threshold value 2</b>		
SERVO (Ext msg), SERVO_840 (Ext msg), SERVO_AC (Ext msg), VECTOR (Ext msg), VECTOR_AC (Ext msg)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8013 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 900.00 [rpm]

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<b>p2184[0...n]</b>	<b>Load monitoring velocity threshold 3</b>		
SERVO (Ext msg, Lin), SERVO_840 (Ext msg, Lin), SERVO_AC (Ext msg, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8013 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 1000.00 [m/min]	<b>Factory setting</b> 0.05 [m/min]

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<b>p2184[0...n]</b>	<b>Load monitoring speed threshold value 3</b>		
SERVO (Ext msg), SERVO_840 (Ext msg), SERVO_AC (Ext msg), VECTOR (Ext msg), VECTOR_AC (Ext msg)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8013 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 1500.00 [rpm]

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<b>p2185[0...n]</b>	<b>Load monitoring force threshold 1, upper</b>		
SERVO (Ext msg, Lin), SERVO_840 (Ext msg, Lin), SERVO_AC (Ext msg, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 8_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8013 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [N]	<b>Max</b> 100000.00 [N]	<b>Factory setting</b> 100000.00 [N]

<b>p2185[0...n]</b>	<b>Load monitoring torque threshold 1, upper</b>		
SERVO (Ext msg), SERVO_840 (Ext msg), SERVO_AC (Ext msg), VECTOR (Ext msg), VECTOR_AC (Ext msg)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8013 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Nm]	<b>Max</b> 20000000.00 [Nm]	<b>Factory setting</b> 10000000.00 [Nm]

<b>p2186[0...n]</b>	<b>Load monitoring force threshold 1, lower</b>		
SERVO (Ext msg, Lin), SERVO_840 (Ext msg, Lin), SERVO_AC (Ext msg, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 8_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8013 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [N]	<b>Max</b> 100000.00 [N]	<b>Factory setting</b> 0.00 [N]

<b>p2186[0...n]</b>	<b>Load monitoring torque threshold 1, lower</b>		
SERVO (Ext msg), SERVO_840 (Ext msg), SERVO_AC (Ext msg), VECTOR (Ext msg), VECTOR_AC (Ext msg)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8013 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Nm]	<b>Max</b> 20000000.00 [Nm]	<b>Factory setting</b> 0.00 [Nm]

<b>p2187[0...n]</b>	<b>Load monitoring force threshold 2, upper</b>		
SERVO (Ext msg, Lin), SERVO_840 (Ext msg, Lin), SERVO_AC (Ext msg, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 8_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8013 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [N]	<b>Max</b> 100000.00 [N]	<b>Factory setting</b> 100000.00 [N]

<b>p2187[0...n]</b>	<b>Load monitoring torque threshold 2, upper</b>		
SERVO (Ext msg), SERVO_840 (Ext msg), SERVO_AC (Ext msg), VECTOR (Ext msg), VECTOR_AC (Ext msg)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8013 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Nm]	<b>Max</b> 20000000.00 [Nm]	<b>Factory setting</b> 10000000.00 [Nm]

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<b>p2188[0...n]</b>	<b>Load monitoring force threshold 2, lower</b>		
SERVO (Ext msg, Lin), SERVO_840 (Ext msg, Lin), SERVO_AC (Ext msg, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 8_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8013 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [N]	<b>Max</b> 100000.00 [N]	<b>Factory setting</b> 0.00 [N]

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<b>p2188[0...n]</b>	<b>Load monitoring torque threshold 2, lower</b>		
SERVO (Ext msg), SERVO_840 (Ext msg), SERVO_AC (Ext msg), VECTOR (Ext msg), VECTOR_AC (Ext msg)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8013 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Nm]	<b>Max</b> 20000000.00 [Nm]	<b>Factory setting</b> 0.00 [Nm]

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<b>p2189[0...n]</b>	<b>Load monitoring force threshold 3, upper</b>		
SERVO (Ext msg, Lin), SERVO_840 (Ext msg, Lin), SERVO_AC (Ext msg, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 8_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8013 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [N]	<b>Max</b> 100000.00 [N]	<b>Factory setting</b> 100000.00 [N]

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<b>p2189[0...n]</b>	<b>Load monitoring torque threshold 3, upper</b>		
SERVO (Ext msg), SERVO_840 (Ext msg), SERVO_AC (Ext msg), VECTOR (Ext msg), VECTOR_AC (Ext msg)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8013 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Nm]	<b>Max</b> 20000000.00 [Nm]	<b>Factory setting</b> 10000000.00 [Nm]

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<b>p2190[0...n]</b>	<b>Load monitoring force threshold 3, lower</b>		
SERVO (Ext msg, Lin), SERVO_840 (Ext msg, Lin), SERVO_AC (Ext msg, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 8_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8013 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [N]	<b>Max</b> 100000.00 [N]	<b>Factory setting</b> 0.00 [N]

<b>p2190[0...n]</b>	<b>Load monitoring torque threshold 3, lower</b>		
SERVO (Ext msg), SERVO_840 (Ext msg), SERVO_AC (Ext msg), VECTOR (Ext msg), VECTOR_AC (Ext msg)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8013 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Nm]	<b>Max</b> 20000000.00 [Nm]	<b>Factory setting</b> 0.00 [Nm]

<b>p2192[0...n]</b>	<b>Load monitoring delay time</b>		
SERVO (Ext msg), SERVO_840 (Ext msg), SERVO_AC (Ext msg), VECTOR (Ext msg), VECTOR_AC (Ext msg)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8013 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [s]	<b>Max</b> 65.00 [s]	<b>Factory setting</b> 10.00 [s]

<b>p2194[0...n]</b>	<b>Torque threshold value 2</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 100.00 [%]	<b>Factory setting</b> 90.00 [%]

<b>p2194[0...n]</b>	<b>Force threshold value 2</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 100.00 [%]	<b>Factory setting</b> 90.00 [%]

<b>p2195[0...n]</b>	<b>Torque utilization switch-off delay</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [ms]	<b>Max</b> 1000.0 [ms]	<b>Factory setting</b> 800.0 [ms]



<b>p2195[0...n]</b>	<b>Force utilization switch-off delay</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [ms]	<b>Max</b> 1000.0 [ms]	<b>Factory setting</b> 800.0 [ms]
<b>p2196[0...n]</b>	<b>Torque utilization scaling</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 3), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 1000.00 [%]	<b>Factory setting</b> 100.00 [%]
<b>r2197.1...13</b>	<b>CO/BO: Status word monitoring 1</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1530, 2534 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r2197.1...13</b>	<b>CO/BO: Status word monitoring 1</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1530, 2534 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r2198.4...12</b>	<b>CO/BO: Status word monitoring 2</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1530, 2536 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r2198.4...12</b>	<b>CO/BO: Status word monitoring 2</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1530, 2536 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r2198.4...12</b>	<b>CO/BO: Status word monitoring 2</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned16 P-Group: Messages Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 1530, 2536 Unit selection: - Expert list: 1  Factory setting -
<b>r2199.0...11</b>	<b>CO/BO: Status word monitoring 3</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: - Data type: Unsigned16 P-Group: Messages Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 1530, 2537 Unit selection: - Expert list: 1  Factory setting -
<b>r2199.0...11</b>	<b>CO/BO: Status word monitoring 3</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	Can be changed: - Data type: Unsigned16 P-Group: Messages Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 1530, 2537 Unit selection: - Expert list: 1  Factory setting -
<b>r2199.0...12</b>	<b>CO/BO: Status word monitoring 3</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned16  P-Group: Messages Not for motor type: -  Min -	Calculated: - Dynamic index: -  Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 1530, 2537, 8018 Unit selection: - Expert list: 1  Factory setting -
<b>p2200[0...n]</b>	<b>BI: Technology controller enable</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	Can be changed: T Data type: Unsigned32 / Binary P-Group: Technology Not for motor type: -  Min -	Calculated: - Dynamic index: CDS, p0170 Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 7958 Unit selection: - Expert list: 1  Factory setting 0

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<b>p2201[0...n]</b>	<b>CO: Technology controller, fixed value 1</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> -200.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 10.00 [%]

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<b>p2202[0...n]</b>	<b>CO: Technology controller, fixed value 2</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> -200.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 20.00 [%]

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<b>p2203[0...n]</b>	<b>CO: Technology controller, fixed value 3</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> -200.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 30.00 [%]

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<b>p2204[0...n]</b>	<b>CO: Technology controller, fixed value 4</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> -200.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 40.00 [%]

<b>p2205[0...n]</b>	<b>CO: Technology controller, fixed value 5</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> -200.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 50.00 [%]

<b>p2206[0...n]</b>	<b>CO: Technology controller, fixed value 6</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> -200.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 60.00 [%]

<b>p2207[0...n]</b>	<b>CO: Technology controller, fixed value 7</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> -200.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 70.00 [%]

<b>p2208[0...n]</b>	<b>CO: Technology controller, fixed value 8</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> -200.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 80.00 [%]

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<b>p2209[0...n]</b>	<b>CO: Technology controller, fixed value 9</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> -200.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 90.00 [%]

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<b>p2210[0...n]</b>	<b>CO: Technology controller, fixed value 10</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> -200.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 100.00 [%]

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<b>p2211[0...n]</b>	<b>CO: Technology controller, fixed value 11</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> -200.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 110.00 [%]

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<b>p2212[0...n]</b>	<b>CO: Technology controller, fixed value 12</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> -200.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 120.00 [%]

<b>p2213[0...n] CO: Technology controller, fixed value 13</b>			
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> -200.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 130.00 [%]

<b>p2214[0...n] CO: Technology controller, fixed value 14</b>			
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> -200.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 140.00 [%]

<b>p2215[0...n] CO: Technology controller, fixed value 15</b>			
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> -200.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 150.00 [%]

<b>p2216[0...n] Technology controller fixed value selection method</b>			
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 2	<b>Factory setting</b> 2

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<b>p2220[0...n]</b>	<b>BI: Technology controller fixed value selection bit 0</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p2221[0...n]</b>	<b>BI: Technology controller fixed value selection bit 1</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p2222[0...n]</b>	<b>BI: Technology controller fixed value selection bit 2</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p2223[0...n]</b>	<b>BI: Technology controller fixed value selection bit 3</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>r2224</b>	<b>CO: Technology controller, fixed value effective</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>r2225.0</b>	<b>CO/BO: Technology controller fixed value selection status word</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r2229</b>	<b>Technology controller number actual</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7950 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p2230[0...n]</b>	<b>Technology controller motorized potentiometer configuration</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7954 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0100 bin



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<b>r2231</b>	<b>Technology controller motorized potentiometer setpoint memory</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 9_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7954 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1

<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
- [%]	- [%]	- [%]

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<b>p2235[0...n]</b>	<b>BI: Technology controller motorized potentiometer raise setpoint</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7954 <b>Unit selection:</b> - <b>Expert list:</b> 1

<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
-	-	0

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<b>p2236[0...n]</b>	<b>BI: Technology controller motorized potentiometer lower setpoint</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7954 <b>Unit selection:</b> - <b>Expert list:</b> 1

<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
-	-	0

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<b>p2237[0...n]</b>	<b>Technology controller motorized potentiometer maximum value</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 9_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7954 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1

<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
-200.00 [%]	200.00 [%]	100.00 [%]

<b>p2238[0...n]</b>	<b>Technology controller motorized potentiometer minimum value</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 9_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7954 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> -200.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> -100.00 [%]

<b>p2240[0...n]</b>	<b>Technology controller motorized potentiometer starting value</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 9_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7954 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> -200.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 0.00 [%]

<b>r2245</b>	<b>CO: Technology controller mot. potentiometer setpoint before RFG</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7954 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>p2247[0...n]</b>	<b>Technology controller motorized potentiometer ramp-up time</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7954 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [s]	<b>Max</b> 1000.0 [s]	<b>Factory setting</b> 10.0 [s]

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<b>p2248[0...n]</b>	<b>Technology controller motorized potentiometer ramp-down time</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7954 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [s]	<b>Max</b> 1000.0 [s]	<b>Factory setting</b> 10.0 [s]

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<b>r2250</b>	<b>CO: Technology controller motorized potentiometer setpoint after RFG</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7954 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

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<b>p2252</b>	<b>Technology controller configuration</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0111 bin

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<b>p2253[0...n]</b>	<b>CI: Technology controller setpoint 1</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2254[0...n]</b>	<b>CI: Technology controller setpoint 2</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2255</b>	<b>Technology controller setpoint 1 scaling</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 100.00 [%]	<b>Factory setting</b> 100.00 [%]

<b>p2256</b>	<b>Technology controller setpoint 2 scaling</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 100.00 [%]	<b>Factory setting</b> 100.00 [%]

<b>p2257</b>	<b>Technology controller, ramp-up time</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [s]	<b>Max</b> 650.00 [s]	<b>Factory setting</b> 1.00 [s]

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<b>p2258</b>	<b>Technology controller ramp-down time</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [s]	<b>Max</b> 650.00 [s]	<b>Factory setting</b> 1.00 [s]

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<b>r2260</b>	<b>CO: Technology controller setpoint after ramp-function generator</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

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<b>p2261</b>	<b>Technology controller setpoint filter time constant</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 60.000 [s]	<b>Factory setting</b> 0.000 [s]

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<b>r2262</b>	<b>CO: Technology controller setpoint after filter</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>p2263</b>	<b>Technology controller type</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p2264[0...n]</b>	<b>CI: Technology controller actual value</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2265</b>	<b>Technology controller actual value filter time constant</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 60.000 [s]	<b>Factory setting</b> 0.000 [s]

<b>r2266</b>	<b>CO: Technology controller actual value after filter</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

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<b>p2267</b>	<b>Technology controller upper limit actual value</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> -10000.00 [%]	<b>Max</b> 10000.00 [%]	<b>Factory setting</b> 200.00 [%]

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<b>p2268</b>	<b>Technology controller lower limit actual value</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> -10000.00 [%]	<b>Max</b> 10000.00 [%]	<b>Factory setting</b> -200.00 [%]

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<b>p2269</b>	<b>Technology controller gain actual value</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 500.00 [%]	<b>Factory setting</b> 100.00 [%]

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<b>p2270</b>	<b>Technology controller actual value function</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 0

<b>p2271</b>	<b>Technology controller actual value inversion (sensor type)</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>r2272</b>	<b>CO: Technology controller actual value scaled</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>r2273</b>	<b>CO: Technology controller error</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 9_1 <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> p0595 <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>p2274</b>	<b>Technology controller differentiation, time constant</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 60.000 [s]	<b>Factory setting</b> 0.000 [s]



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<b>p2280</b>	<b>Technology controller proportional gain</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 1000.000	<b>Factory setting</b> 1.000

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<b>p2285</b>	<b>Technology controller integral time</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 60.000 [s]	<b>Factory setting</b> 0.000 [s]

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<b>p2286[0...n]</b>	<b>BI: Hold technology controller integrator</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p2289[0...n]</b>	<b>CI: Technology controller pre-control signal</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2291</b>	<b>CO: Technology controller maximum limiting</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -200.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 100.00 [%]

<b>p2292</b>	<b>CO: Technology controller minimum limiting</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -200.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 0.00 [%]

<b>p2293</b>	<b>Technology controller ramp-up/ramp-down time</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [s]	<b>Max</b> 100.00 [s]	<b>Factory setting</b> 1.00 [s]

<b>r2294</b>	<b>CO: Technology controller output signal</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

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<b>p2295</b>	<b>CO: Technology controller output scaling</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -100.00 [%]	<b>Max</b> 100.00 [%]	<b>Factory setting</b> 100.00 [%]

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<b>p2296[0...n]</b>	<b>CI: Technology controller output scaling</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2295[0]

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<b>p2297[0...n]</b>	<b>CI: Technology controller maximum limit signal source</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2291[0]

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<b>p2298[0...n]</b>	<b>CI: Technology controller minimum limit signal source</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2292[0]

<b>p2299[0...n]</b>	<b>CI: Technology controller limit offset</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>p2306</b>	<b>Technology controller fault signal inversion</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	1	0

<b>r2349.0...11</b>	<b>CO/BO: Technology controller status word</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl), VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Technology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7958 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>p2369</b>	<b>BI: Closed-loop cascade control, control word</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>p2502[0...n]</b>	<b>LR encoder assignment</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> C2(25) <b>Data type:</b> Integer16 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	3	1

<b>p2503[0...n]</b>	<b>LR length unit LU per 10 mm</b>		
SERVO (APC, Pos ctrl), SERVO_840 (APC, Pos ctrl), SERVO_AC (APC, Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> C2(25) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1 [LU]	<b>Max</b> 2147483647 [LU]	<b>Factory setting</b> 10000 [LU]
<b>p2504[0...n]</b>	<b>LR motor/load motor distance</b>		
SERVO (APC, Lin, Pos ctrl), SERVO_840 (APC, Lin, Pos ctrl), SERVO_AC (APC, Lin, Pos ctrl)	<b>Can be changed:</b> C2(25) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010, 4704, 4711 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 1048576	<b>Factory setting</b> 1
<b>p2504[0...n]</b>	<b>LR motor/load motor revolutions</b>		
SERVO (APC, Pos ctrl), SERVO_840 (APC, Pos ctrl), SERVO_AC (APC, Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> C2(25) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010, 4704, 4711 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 1048576	<b>Factory setting</b> 1
<b>p2505[0...n]</b>	<b>LR motor/load motor revolutions</b>		
SERVO (APC, Pos ctrl), SERVO_840 (APC, Pos ctrl), SERVO_AC (APC, Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> C2(25) <b>Data type:</b> Integer32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010, 4704, 4711 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -1048576	<b>Max</b> 1048576	<b>Factory setting</b> 1
<b>p2506[0...n]</b>	<b>LR length unit LU per load path</b>		
SERVO (APC, Lin, Pos ctrl), SERVO_840 (APC, Lin, Pos ctrl), SERVO_AC (APC, Lin, Pos ctrl)	<b>Can be changed:</b> C2(25) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1 [LU]	<b>Max</b> 2147483647 [LU]	<b>Factory setting</b> 10000 [LU]

<b>p2506[0...n]</b>	<b>LR length unit LU per load revolution</b>		
SERVO (APC, Pos ctrl), SERVO_840 (APC, Pos ctrl), SERVO_AC (APC, Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> C2(25) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1 [LU]	<b>Max</b> 2147483647 [LU]	<b>Factory setting</b> 10000 [LU]

<b>p2507[0...n]</b>	<b>LR absolute encoder adjustment status</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 1

<b>p2508[0...3]</b>	<b>BI: LR activate reference mark search</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2509[0...3]</b>	<b>BI: LR activating measuring probe evaluation</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2510[0...3]</b>	<b>BI: LR selecting measuring probe evaluation</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3615, 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p2511[0...3]</b>	<b>BI: LR measuring probe evaluation edge</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3615, 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p2512[0...3]</b>	<b>BI: LR pos. actual value preprocessing activate corr. value (edge)</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010, 4015 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p2513[0...3]</b>	<b>CI: LR Position actual value preprocessing, corrective value</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010, 4015 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p2514[0...3]</b>	<b>BI: LR activate position actual value setting</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p2515[0...3]</b>	<b>CI: LR position actual setting, setting value</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>p2516[0...3]</b>	<b>CI: LR position offset</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2517[0...2]</b>	<b>LR direct measuring probe 1</b>		
SERVO (Dig IO, Pos ctrl), SERVO_840 (Dig IO, Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 51	<b>Factory setting</b> 0

<b>p2517[0...2]</b>	<b>LR direct measuring probe 1</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 18	<b>Factory setting</b> 0

<b>p2518[0...2]</b>	<b>LR direct measuring probe 2</b>		
SERVO (Dig IO, Pos ctrl), SERVO_840 (Dig IO, Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 51	<b>Factory setting</b> 0

<b>p2518[0...2]</b>	<b>LR direct measuring probe 2</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 18	<b>Factory setting</b> 0



<b>p2519[0...n]</b>	<b>LR position actual value preprocessing config. DDS changeover</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 5	<b>Factory setting</b> 1
<b>r2520[0...2]</b>	<b>CO: LR Position actual value preprocessing, encoder control word</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r2521[0...3]</b>	<b>CO: LR position actual value</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [LU]	<b>Max</b> - [LU]	<b>Factory setting</b> - [LU]
<b>r2522[0...3]</b>	<b>CO: LR velocity actual value</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [1000 LU/min]	<b>Max</b> - [1000 LU/min]	<b>Factory setting</b> - [1000 LU/min]
<b>r2523[0...3]</b>	<b>CO: LR measured value</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [LU]	<b>Max</b> - [LU]	<b>Factory setting</b> - [LU]

<b>r2524</b>	<b>CO: LR LU/mm</b>		
SERVO (Lin, Pos ctrl), SERVO_840 (Lin, Pos ctrl), SERVO_AC (Lin, Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3630, 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> - [LU]
	<b>Min</b> - [LU]	<b>Max</b> - [LU]	

<b>r2524</b>	<b>CO: LR LU/revolution</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3630, 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> - [LU]
	<b>Min</b> - [LU]	<b>Max</b> - [LU]	

<b>p2525[0...n]</b>	<b>CO: LR encoder adjustment, offset</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 4010 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0 [LU]
	<b>Min</b> 0 [LU]	<b>Max</b> 4294967295 [LU]	

<b>r2526.0...9</b>	<b>CO/BO: LR status word</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> -
	<b>Min</b> -	<b>Max</b> -	

<b>r2527.0...2</b>	<b>CO/BO: LR actual value sensing status word encoder 1</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> -
	<b>Min</b> -	<b>Max</b> -	

<b>r2528.0...2</b>	<b>CO/BO: LR actual value sensing status word encoder 2</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r2529.0...2</b>	<b>CO/BO: LR actual value sensing status word encoder 3</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p2530</b>	<b>CI: LR position setpoint</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015, 4020 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p2531</b>	<b>CI: LR velocity setpoint</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p2532</b>	<b>CI: LR position actual value</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4015, 4020, 4025 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2521[0]

<b>p2533[0...n]</b>	<b>LR position setpoint filter, time constant</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 1000.00 [ms]	<b>Factory setting</b> 0.00 [ms]

<b>p2534[0...n]</b>	<b>LR velocity pre-control factor</b>		
SERVO (Lin, Pos ctrl), SERVO_840 (Lin, Pos ctrl), SERVO_AC (Lin, Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015, 4025 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 0.00 [%]

<b>p2534[0...n]</b>	<b>LR speed pre-control factor</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015, 4025 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 0.00 [%]

<b>p2535[0...n]</b>	<b>LR velocity pre-control balancing filter dead time</b>		
SERVO (Lin, Pos ctrl), SERVO_840 (Lin, Pos ctrl), SERVO_AC (Lin, Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00	<b>Max</b> 2.00	<b>Factory setting</b> 0.00

<b>p2535[0...n]</b>	<b>LR speed pre-control balancing filter dead time</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00	<b>Max</b> 2.00	<b>Factory setting</b> 0.00

<b>p2536[0...n]</b>	<b>LR velocity pre-control, balancing filter PT1</b>		
SERVO (Lin, Pos ctrl), SERVO_840 (Lin, Pos ctrl), SERVO_AC (Lin, Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 100.00 [ms]	<b>Factory setting</b> 0.00 [ms]
<b>p2536[0...n]</b>	<b>LR speed pre-control, symmetrizing filter PT1</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 100.00 [ms]	<b>Factory setting</b> 0.00 [ms]
<b>p2537</b>	<b>CI: LR position controller adaptation</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1
<b>p2538[0...n]</b>	<b>LR proportional gain</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [1000/min]	<b>Max</b> 300.000 [1000/min]	<b>Factory setting</b> 1.000 [1000/min]
<b>p2539[0...n]</b>	<b>LR integral time</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 100000.00 [ms]	<b>Factory setting</b> 0.00 [ms]

<b>p2540</b>	<b>CO: LR position controller output, velocity limit</b>		
SERVO (Lin, Pos ctrl), SERVO_840 (Lin, Pos ctrl), SERVO_AC (Lin, Pos ctrl)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 4015
	<b>P-Group:</b> Closed loop position control	<b>Units group:</b> 4_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2000	<b>Expert list:</b> 1
	<b>Min</b> 0.000 [m/min]	<b>Max</b> 1000.000 [m/min]	<b>Factory setting</b> 1000.000 [m/min]

<b>p2540</b>	<b>CO: LR position controller output, speed limit</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 4015
	<b>P-Group:</b> Closed loop position control	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2000	<b>Expert list:</b> 1
	<b>Min</b> 0.000 [rpm]	<b>Max</b> 210000.000 [rpm]	<b>Factory setting</b> 210000.000 [rpm]

<b>p2541</b>	<b>CI: LR position controller output, velocity limit signal source</b>		
SERVO (Lin, Pos ctrl), SERVO_840 (Lin, Pos ctrl), SERVO_AC (Lin, Pos ctrl)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 4015
	<b>P-Group:</b> Closed loop position control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2000	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2540[0]

<b>p2541</b>	<b>CI: LR position controller output, speed limit signal source</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 4015
	<b>P-Group:</b> Closed loop position control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2000	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2540[0]

<b>p2542</b>	<b>LR standstill window</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 4020
	<b>P-Group:</b> Closed loop position control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0 [LU]	<b>Max</b> 2147483647 [LU]	<b>Factory setting</b> 200 [LU]

<b>p2543</b>	<b>LR standstill monitoring time</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4020 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 100000.00 [ms]	<b>Factory setting</b> 200.00 [ms]
<b>p2544</b>	<b>LR positioning window</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4020 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [LU]	<b>Max</b> 2147483647 [LU]	<b>Factory setting</b> 40 [LU]
<b>p2545</b>	<b>LR positioning monitoring time</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4020 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 100000.00 [ms]	<b>Factory setting</b> 1000.00 [ms]
<b>p2546[0...n]</b>	<b>LR dynamic following error monitoring tolerance</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4025 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [LU]	<b>Max</b> 2147483647 [LU]	<b>Factory setting</b> 1000 [LU]
<b>p2547</b>	<b>LR cam switching position 1</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4025 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147483648 [LU]	<b>Max</b> 2147483647 [LU]	<b>Factory setting</b> 0 [LU]

<b>p2548</b>	<b>LR cam switching position 2</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4025 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147483648 [LU]	<b>Max</b> 2147483647 [LU]	<b>Factory setting</b> 0 [LU]

<b>p2549</b>	<b>BI: LR enable 1</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 899.2

<b>p2550</b>	<b>BI: LR enable 2</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2551</b>	<b>BI: LR setpoint signal present</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4020 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2552</b>	<b>BI: LR signal travel to fixed stop active</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4025 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0



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<b>p2553</b>	<b>BI: LR signal fixed stop reached</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4025 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p2554</b>	<b>BI: LR signal traversing command active</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4020 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p2555</b>	<b>CI: LR LU/revolution LU/mm</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2524[0]

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<b>r2556</b>	<b>CO: LR position setpoint after setpoint smoothing</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [LU]	<b>Max</b> - [LU]	<b>Factory setting</b> - [LU]

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<b>r2557</b>	<b>CO: LR position controller input, system deviation</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [LU]	<b>Max</b> - [LU]	<b>Factory setting</b> - [LU]

<b>r2558</b>	<b>CO: LR position controller output, P component</b>		
SERVO (Lin, Pos ctrl), SERVO_840 (Lin, Pos ctrl), SERVO_AC (Lin, Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -  <b>Min</b> - [m/min]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000  <b>Max</b> - [m/min]	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [m/min]

<b>r2558</b>	<b>CO: LR position controller output, P component</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -  <b>Min</b> - [rpm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000  <b>Max</b> - [rpm]	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [rpm]

<b>r2559</b>	<b>CO: LR position controller output, I component</b>		
SERVO (Lin, Pos ctrl), SERVO_840 (Lin, Pos ctrl), SERVO_AC (Lin, Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -  <b>Min</b> - [m/min]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000  <b>Max</b> - [m/min]	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [m/min]

<b>r2559</b>	<b>CO: LR position controller output, I component</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -  <b>Min</b> - [rpm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000  <b>Max</b> - [rpm]	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [rpm]

<b>r2560</b>	<b>CO: LR velocity setpoint</b>		
SERVO (Lin, Pos ctrl), SERVO_840 (Lin, Pos ctrl), SERVO_AC (Lin, Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -  <b>Min</b> - [m/min]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000  <b>Max</b> - [m/min]	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [m/min]

<b>r2560</b>	<b>CO: LR speed setpoint</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]
<b>r2561</b>	<b>CO: LR velocity pre-control value</b>		
SERVO (Lin, Pos ctrl), SERVO_840 (Lin, Pos ctrl), SERVO_AC (Lin, Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]
<b>r2561</b>	<b>CO: LR speed pre-control value</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]
<b>r2562</b>	<b>CO: LR velocity setpoint, total</b>		
SERVO (Lin, Pos ctrl), SERVO_840 (Lin, Pos ctrl), SERVO_AC (Lin, Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]
<b>r2562</b>	<b>CO: LR total speed setpoint</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>r2563</b>	<b>CO: LR following error dynamic model</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4025 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [LU]	<b>Max</b> - [LU]	<b>Factory setting</b> - [LU]

<b>r2564</b>	<b>CO: LR force pre-control value</b>		
SERVO (Lin, Pos ctrl), SERVO_840 (Lin, Pos ctrl), SERVO_AC (Lin, Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 8_1 <b>Scaling:</b> p2003	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [N]	<b>Max</b> - [N]	<b>Factory setting</b> - [N]

<b>r2564</b>	<b>CO: LR torque pre-control value</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 7_1 <b>Scaling:</b> p2003	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Nm]	<b>Max</b> - [Nm]	<b>Factory setting</b> - [Nm]

<b>r2565</b>	<b>CO: LR following error actual</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [LU]	<b>Max</b> - [LU]	<b>Factory setting</b> - [LU]

<b>r2566</b>	<b>LR velocity input pre-control</b>		
SERVO (Lin, Pos ctrl), SERVO_840 (Lin, Pos ctrl), SERVO_AC (Lin, Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]

<b>r2566</b>	<b>LR speed input pre-control</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 1 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]
<b>p2567[0...n]</b>	<b>LR force pre-control mass</b>		
SERVO (Lin, Pos ctrl), SERVO_840 (Lin, Pos ctrl), SERVO_AC (Lin, Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 27_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> p0100 <b>Expert list:</b> 1
	<b>Min</b> 0.000000 [kg]	<b>Max</b> 10000.000000 [kg]	<b>Factory setting</b> 1.000000 [kg]
<b>p2567[0...n]</b>	<b>LR torque pre-control moment of inertia</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 25_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4015 <b>Unit selection:</b> p0100 <b>Expert list:</b> 1
	<b>Min</b> 0.000000 [kgm <sup>2</sup> ]	<b>Max</b> 100000.000000 [kgm <sup>2</sup> ]	<b>Factory setting</b> 0.159155 [kgm <sup>2</sup> ]
<b>p2568</b>	<b>BI: EPOS STOP cam activation</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p2569</b>	<b>BI: EPOS STOP cam minus</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1

<b>p2570</b>	<b>BI: EPOS STOP cam plus</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1
<b>p2571</b>	<b>EPOS maximum velocity</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1 [1000 LU/min]	<b>Max</b> 40000000 [1000 LU/min]	<b>Factory setting</b> 30000 [1000 LU/min]
<b>p2572</b>	<b>EPOS maximum acceleration</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1 [1000 LU/s <sup>2</sup> ]	<b>Max</b> 2000000 [1000 LU/s <sup>2</sup> ]	<b>Factory setting</b> 100 [1000 LU/s <sup>2</sup> ]
<b>p2573</b>	<b>EPOS maximum deceleration</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1 [1000 LU/s <sup>2</sup> ]	<b>Max</b> 2000000 [1000 LU/s <sup>2</sup> ]	<b>Factory setting</b> 100 [1000 LU/s <sup>2</sup> ]
<b>p2574</b>	<b>EPOS jerk limiting</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3635 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1 [1000 LU/s <sup>3</sup> ]	<b>Max</b> 100000000 [1000 LU/s <sup>3</sup> ]	<b>Factory setting</b> 10000 [1000 LU/s <sup>3</sup> ]

<b>p2575</b>	<b>BI: EPOS jerk limiting activation</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3635 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p2576</b>	<b>EPOS modulo correction, modulo range</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3635 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1 [LU]	<b>Max</b> 2147482647 [LU]	<b>Factory setting</b> 360000 [LU]
<b>p2577</b>	<b>BI: EPOS modulo correction activation</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3630, 3635 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p2578</b>	<b>CI: EPOS software limit switch minus signal source</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2580[0]
<b>p2579</b>	<b>CI: EPOS software limit switch plus signal source</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2581[0]

<b>p2580</b>	<b>CO: EPOS software limit switch minus</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147482648 [LU]	<b>Max</b> 2147482647 [LU]	<b>Factory setting</b> -2147482648 [LU]

<b>p2581</b>	<b>CO: EPOS software limit switch plus</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147482648 [LU]	<b>Max</b> 2147482647 [LU]	<b>Factory setting</b> 2147482647 [LU]

<b>p2582</b>	<b>BI: EPOS software limit switch activation</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2583</b>	<b>EPOS backlash compensation</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3635 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -200000 [LU]	<b>Max</b> 200000 [LU]	<b>Factory setting</b> 0 [LU]

<b>p2585</b>	<b>EPOS jog 1 setpoint velocity</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3610 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -40000000 [1000 LU/min]	<b>Max</b> 40000000 [1000 LU/min]	<b>Factory setting</b> -300 [1000 LU/min]



<b>p2586</b>	<b>EPOS jog 2 setpoint velocity</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3610 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -40000000 [1000 LU/min]	<b>Max</b> 40000000 [1000 LU/min]	<b>Factory setting</b> 300 [1000 LU/min]
<b>p2587</b>	<b>EPOS jog 1 traversing distance</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3610 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [LU]	<b>Max</b> 2147482647 [LU]	<b>Factory setting</b> 1000 [LU]
<b>p2588</b>	<b>EPOS jog 2 traversing distance</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3610 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [LU]	<b>Max</b> 2147482647 [LU]	<b>Factory setting</b> 1000 [LU]
<b>p2589</b>	<b>BI: EPOS jog 1 signal source</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3610, 3625 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p2590</b>	<b>BI: EPOS jog 2 signal source</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3610, 3625 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2591</b>	<b>BI: EPOS jogging incremental</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3610 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2593</b>	<b>CI: EPOS LU/revolution LU/mm</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2524[0]

<b>p2594[0...2]</b>	<b>CI: EPOS Maximum velocity externally limited</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 3630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2595</b>	<b>BI: EPOS referencing start</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3612, 3625, 3614 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2596</b>	<b>BI: EPOS set reference point</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3612 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2597</b>	<b>BI: EPOS referencing type selection</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3612, 3614, 3625 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p2598[0...3]</b>	<b>CI: EPOS reference point coordinate, signal source</b>		
SERVO (EPOS, Pos ctrl), SERVO_840 (EPOS, Pos ctrl), SERVO_AC (EPOS, Pos ctrl), VECTOR (EPOS, Pos ctrl), VECTOR_AC (EPOS, Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3612, 3614 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> [0] 2599[0] [1] 0 [2] 0 [3] 0
<b>p2599</b>	<b>CO: EPOS reference point coordinate value</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3612 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147482648 [LU]	<b>Max</b> 2147482647 [LU]	<b>Factory setting</b> 0 [LU]
<b>p2600</b>	<b>EPOS search for reference, reference point offset</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3612 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147482648 [LU]	<b>Max</b> 2147482647 [LU]	<b>Factory setting</b> 0 [LU]

<b>p2601</b>	<b>EPOS flying referencing, inner window</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Integer32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3614
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0 [LU]	<b>Max</b> 2147482647 [LU]	<b>Factory setting</b> 0 [LU]

<b>p2602</b>	<b>EPOS flying referencing, outer window</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Integer32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3614
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0 [LU]	<b>Max</b> 2147482647 [LU]	<b>Factory setting</b> 0 [LU]

<b>p2603</b>	<b>EPOS flying referencing, positioning mode, relative</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Integer32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3635
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 1

<b>p2604</b>	<b>BI: EPOS search for reference, start direction</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3612
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2605</b>	<b>EPOS search for reference, approach velocity, reference cam</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3612
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 1 [1000 LU/min]	<b>Max</b> 40000000 [1000 LU/min]	<b>Factory setting</b> 5000 [1000 LU/min]

<b>p2606</b>	<b>EPOS search for reference, reference cam, maximum distance</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3612 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [LU]	<b>Max</b> 2147482647 [LU]	<b>Factory setting</b> 2147482647 [LU]
<b>p2607</b>	<b>EPOS search for reference, reference cam present</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3612 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 1
<b>p2608</b>	<b>EPOS search for reference, approach velocity, zero mark</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3612 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1 [1000 LU/min]	<b>Max</b> 40000000 [1000 LU/min]	<b>Factory setting</b> 300 [1000 LU/min]
<b>p2609</b>	<b>EPOS search for reference, max. distance ref. cam and zero mark</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3612 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [LU]	<b>Max</b> 2147482647 [LU]	<b>Factory setting</b> 20000 [LU]
<b>p2610</b>	<b>EPOS search for ref., tol. bandwidth for distance to zero mark</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3612 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [LU]	<b>Max</b> 2147482647 [LU]	<b>Factory setting</b> 2147482647 [LU]

<b>p2611</b>	<b>EPOS search for reference, approach velocity, reference point</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3612
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 1 [1000 LU/min]	<b>Max</b> 40000000 [1000 LU/min]	<b>Factory setting</b> 300 [1000 LU/min]

<b>p2612</b>	<b>BI: EPOS search for reference, reference cam</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3612
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2613</b>	<b>BI: EPOS search for reference reversing cam minus</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3612
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1

<b>p2614</b>	<b>BI: EPOS search for reference reversing cam plus</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3612
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1

<b>p2615</b>	<b>EPOS maximum number of traversing blocks</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> C2(17)	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned8	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3616
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 64	<b>Factory setting</b> 64

<b>p2616[0...n]</b>	<b>EPOS traversing block, block number</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p2615 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3616 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -1	<b>Max</b> 63	<b>Factory setting</b> -1
<b>p2617[0...n]</b>	<b>EPOS traversing block position</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p2615 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3616 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147482648 [LU]	<b>Max</b> 2147482647 [LU]	<b>Factory setting</b> 0 [LU]
<b>p2618[0...n]</b>	<b>EPOS traversing block velocity</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p2615 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3616 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1 [1000 LU/min]	<b>Max</b> 40000000 [1000 LU/min]	<b>Factory setting</b> 600 [1000 LU/min]
<b>p2619[0...n]</b>	<b>EPOS traversing block acceleration override</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p2615 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3616 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1.0 [%]	<b>Max</b> 100.0 [%]	<b>Factory setting</b> 100.0 [%]
<b>p2620[0...n]</b>	<b>EPOS traversing deceleration override</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p2615 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3616 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1.0 [%]	<b>Max</b> 100.0 [%]	<b>Factory setting</b> 100.0 [%]

<b>p2621[0...n]</b>	<b>EPOS traversing block task</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p2615 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3616 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 9	<b>Factory setting</b> 1

<b>p2622[0...n]</b>	<b>EPOS traversing block task parameter</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p2615 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3616 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147483648	<b>Max</b> 2147483647	<b>Factory setting</b> 0

<b>p2623[0...n]</b>	<b>EPOS traversing block, task mode</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p2615 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3515, 3616 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0

<b>p2624</b>	<b>EPOS traversing block, sorting</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3616 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p2625</b>	<b>BI: EPOS traversing block selection, bit 0</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3616, 3640 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0



<b>p2626</b>	<b>BI: EPOS traversing block selection, bit 1</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3616, 3640 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p2627</b>	<b>BI: EPOS traversing block selection, bit 2</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3616, 3640 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p2628</b>	<b>BI: EPOS traversing block selection, bit 3</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3616, 3640 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p2629</b>	<b>BI: EPOS traversing block selection, bit 4</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3616, 3640 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p2630</b>	<b>BI: EPOS traversing block selection, bit 5</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3616, 3640 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2631</b>	<b>BI: EPOS activate traversing task (0 -&gt; 1)</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3616, 3625 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p2632</b>	<b>EPOS external block change evaluation</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3615, 3616 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>p2633</b>	<b>BI: EPOS external block change (0 -&gt; 1)</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3615 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p2634[0...n]</b>	<b>EPOS fixed stop maximum following error</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3617, 4025 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [LU]	<b>Max</b> 2147482647 [LU]	<b>Factory setting</b> 1000 [LU]
<b>p2635</b>	<b>EPOS fixed stop monitoring window</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3617, 4025 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [LU]	<b>Max</b> 2147482647 [LU]	<b>Factory setting</b> 100 [LU]

<b>p2637</b>	<b>BI: EPOS fixed stop reached</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3616, 3617 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2526.4
<b>p2638</b>	<b>BI: EPOS fixed stop outside the monitoring window</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3616, 3617 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2526.5
<b>p2639</b>	<b>BI: EPOS force limit reached</b>		
SERVO (EPOS, Lin), SERVO_840 (EPOS, Lin), SERVO_AC (EPOS, Lin)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3616 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1407.7
<b>p2639</b>	<b>BI: EPOS torque limit reached</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3616 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1407.7
<b>p2640</b>	<b>BI: EPOS intermediate stop (0 signal)</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3616, 3620, 3625 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2641</b>	<b>BI: EPOS reject traversing task (0 signal)</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3616, 3620, 3625
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2642</b>	<b>CI: EPOS direct setpoint input/MDI position setpoint</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32 / Integer32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3618
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2690[0]

<b>p2643</b>	<b>CI: EPOS direct setpoint input/MDI velocity setpoint</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32 / Integer32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3618
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2691[0]

<b>p2644</b>	<b>CI: EPOS direct setpoint input/MDI acceleration override</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3618
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2692[0]

<b>p2645</b>	<b>CI: EPOS direct setpoint input/MDI deceleration override</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3618
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2693[0]

<b>p2646</b>	<b>CI: EPOS velocity override</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 1 <b>Func. diagram:</b> 3630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1
<b>p2647</b>	<b>BI: EPOS direct setpoint input/MDI selection</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3620, 3625, 3640 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p2648</b>	<b>BI: EPOS direct setpoint input/MDI positioning type</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3620 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p2649</b>	<b>BI: EPOS direct setpoint input/MDI transfer type selection</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3620 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p2650</b>	<b>BI: EPOS direct setpoint input/MDI setpoint acceptance edge</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3620 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>p2651</b>	<b>BI: EPOS direct setpoint input/MDI direction selection, positive</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3620 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2652</b>	<b>BI: EPOS direct setpoint input/MDI direction selection, negative</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3620 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2653</b>	<b>BI: EPOS direct setpoint input/MDI setting-up selection</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3620 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2654</b>	<b>CI: EPOS direct setpoint input/MDI mode adaptation</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3620 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p2655[0...1]</b>	<b>BI: EPOS select tracking mode</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3635 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> [0] 1 [1] 2526.7

<b>p2656</b>	<b>BI: EPOS enable basic positioner</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3635 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2526.3
<b>p2657</b>	<b>CI: EPOS position actual value/position setting value</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3610, 3616, 3620, 3635 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2521[0]
<b>p2658</b>	<b>BI: EPOS pos. actual value valid, feedback signal</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3635 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2526.0
<b>p2659</b>	<b>BI: EPOS referencing active feedback signal</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3612 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2526.1
<b>p2660</b>	<b>CI: EPOS measured value referencing</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3612, 3614 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2523[0]

<b>p2661</b>	<b>BI: EPOS measured value valid, feedback signal</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3612, 3614, 3615
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2526.2

<b>p2662</b>	<b>BI: EPOS adjustment value valid feedback signal</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2526.9

<b>p2663</b>	<b>BI: EPOS clamping active feedback signal</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3616
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 2526.8

<b>r2665</b>	<b>CO: EPOS position setpoint</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Integer32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3635
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [LU]	<b>Max</b> - [LU]	<b>Factory setting</b> - [LU]

<b>r2666</b>	<b>CO: EPOS velocity setpoint</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Integer32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3635
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [1000 LU/min]	<b>Max</b> - [1000 LU/min]	<b>Factory setting</b> - [1000 LU/min]



<b>r2667</b>	<b>CO: EPOS backlash compensation value</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3635 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [LU]	<b>Max</b> - [LU]	<b>Factory setting</b> - [LU]
<b>r2669</b>	<b>CO: EPOS actual operating mode</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3625, 3630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r2670.0...15</b>	<b>CO/BO: EPOS status word, active traversing block</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3615, 3625, 3650 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r2671</b>	<b>CO: EPOS actual position setpoint</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3610, 3616, 3620 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [LU]	<b>Max</b> - [LU]	<b>Factory setting</b> - [LU]
<b>r2672</b>	<b>CO: EPOS actual velocity setpoint</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3610, 3612, 3616, 3620 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [1000 LU/min]	<b>Max</b> - [1000 LU/min]	<b>Factory setting</b> - [1000 LU/min]

<b>r2673</b>	<b>CO: EPOS actual acceleration override</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3610, 3612, 3616, 3620
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>r2674</b>	<b>CO: EPOS actual deceleration override</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3610, 3612, 3616, 3620
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>r2675</b>	<b>CO: EPOS actual task</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3616
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 9	<b>Factory setting</b> -

<b>r2676</b>	<b>CO: EPOS actual task parameter</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Integer32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3616
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r2677</b>	<b>CO: EPOS actual task mode</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3616
	<b>P-Group:</b> Basic positioner	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r2678</b>	<b>CO: EPOS external block change actual position</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3615, 3616, 3620 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [LU]	<b>Max</b> - [LU]	<b>Factory setting</b> - [LU]
<b>r2680</b>	<b>CO: EPOS clearance, reference cam and zero mark</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3612 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [LU]	<b>Max</b> - [LU]	<b>Factory setting</b> - [LU]
<b>r2681</b>	<b>CO: EPOS velocity override effective</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3630 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]
<b>r2682</b>	<b>CO: EPOS residual distance to go</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3635 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [LU]	<b>Max</b> - [LU]	<b>Factory setting</b> - [LU]
<b>r2683.0...14</b>	<b>CO/BO: EPOS status word 1</b>		
SERVO (Lin, Pos ctrl), SERVO_840 (Lin, Pos ctrl), SERVO_AC (Lin, Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3645 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r2683.0...14</b>	<b>CO/BO: EPOS status word 1</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3645 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r2684.0...15</b>	<b>CO/BO: EPOS status word 2</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3646 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r2685</b>	<b>CO: EPOS corrective value</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3635 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [LU]	<b>Max</b> - [LU]	<b>Factory setting</b> - [LU]

<b>r2686[0...1]</b>	<b>CO: EPOS force limit effective</b>		
SERVO (EPOS, Lin), SERVO_840 (EPOS, Lin), SERVO_AC (EPOS, Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3616, 3617 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>r2686[0...1]</b>	<b>CO: EPOS torque limiting effective</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3616, 3617 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

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<b>r2687</b>	<b>CO: EPOS force setpoint</b>		
SERVO (EPOS, Lin), SERVO_840 (EPOS, Lin), SERVO_AC (EPOS, Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3616, 3617 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [N]	<b>Max</b> - [N]	<b>Factory setting</b> - [N]

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<b>r2687</b>	<b>CO: EPOS torque setpoint</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 3616, 3617 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [Nm]	<b>Max</b> - [Nm]	<b>Factory setting</b> - [Nm]

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<b>p2690</b>	<b>CO: EPOS position fixed setpoint</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3618 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147482648 [LU]	<b>Max</b> 2147482647 [LU]	<b>Factory setting</b> 0 [LU]

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<b>p2691</b>	<b>CO: EPOS velocity fixed setpoint</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3618 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1 [1000 LU/min]	<b>Max</b> 40000000 [1000 LU/min]	<b>Factory setting</b> 600 [1000 LU/min]

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<b>p2692</b>	<b>CO: EPOS acceleration override, fixed setpoint</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3618 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.100 [%]	<b>Max</b> 100.000 [%]	<b>Factory setting</b> 100.000 [%]

<b>p2693</b>	<b>CO: EPOS deceleration override, fixed setpoint</b>		
SERVO (EPOS), SERVO_840 (EPOS), SERVO_AC (EPOS), VECTOR (EPOS), VECTOR_AC (EPOS)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Basic positioner <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 3618 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.100 [%]	<b>Max</b> 100.000 [%]	<b>Factory setting</b> 100.000 [%]

<b>r2700</b>	<b>CO: Reference frequency</b>		
A_INF, A_INF_840, B_INF, B_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r2700</b>	<b>CO: Reference speed/reference frequency</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r2700</b>	<b>CO: Reference velocity/reference frequency actual</b>		
ENC (Lin_enc), ENC_840 (Lin_enc)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r2700</b>	<b>CO: Reference frequency actual</b>		
S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r2700</b>	<b>CO: Reference velocity/reference frequency actual</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1

	Min	Max	Factory setting
<b>r2701</b>			
<b>CO: Reference voltage</b>			
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	Min	Max	Factory setting
	-	-	-
<b>r2702</b>			
<b>CO: Reference current</b>			
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	Min	Max	Factory setting
	-	-	-
<b>r2703</b>			
<b>CO: Reference torque</b>			
SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	Min	Max	Factory setting
	-	-	-
<b>r2703</b>			
<b>CO: Reference force actual</b>			
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	Min	Max	Factory setting
	-	-	-

<b>r2704</b>	<b>CO: Reference power</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r2705</b>	<b>CO: Reference angle</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r2706</b>	<b>CO: Reference temp</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM120, TM150, TM31, TM41, VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r2707</b>	<b>CO: Reference acceleration</b>		
SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>p2720[0...n]</b>	<b>Load gear configuration</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(1, 4) Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0000 bin



<b>p2721[0...n]</b>	<b>Load gear, rotary absolute encoder, revolutions, virtual</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 4194303	<b>Factory setting</b> 0
<b>p2722[0...n]</b>	<b>Load gear, position tracking tolerance window</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1, 4) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00	<b>Max</b> 4294967300.00	<b>Factory setting</b> 0.00
<b>r2723[0...n]</b>	<b>CO: Load gear absolute value</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010, 4704 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r2724[0...n]</b>	<b>CO: Load gear position difference</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p2730[0...3]</b>	<b>BI: LR pos. actual value preprocessing activate neg. corr. (edge)</b>		
SERVO (Pos ctrl), SERVO_840 (Pos ctrl), SERVO_AC (Pos ctrl), VECTOR (Pos ctrl), VECTOR_AC (Pos ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Closed loop position control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 4010, 4015 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p2810[0...1]</b>	<b>BI: AND logic operation inputs</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2634 <b>Unit selection:</b> - <b>Expert list:</b> 1

	Min	Max	Factory setting
	-	-	0
<b>r2811.0</b>	<b>CO/BO: AND logic operation result</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2634 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p2816[0...1]</b>	<b>BI: OR logic operation inputs</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2634 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>r2817.0</b>	<b>CO/BO: OR logic operation result</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2634 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p2900</b>	<b>CO: Fixed value 1 [%]</b>		
A_INF (Dyn. grid support, Line transf), A_INF_840 (Dyn. grid support, Line transf)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Free function blocks <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 1021 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -10000.00 [%]	<b>Max</b> 10000.00 [%]	<b>Factory setting</b> 0.00 [%]
<b>p2900[0...n]</b>	<b>CO: Fixed value 1 [%]</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Free function blocks <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 1021 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -10000.00 [%]	<b>Max</b> 10000.00 [%]	<b>Factory setting</b> 0.00 [%]

<b>p2901</b>	<b>CO: Fixed value 2 [%]</b>		
A_INF (Dyn. grid support, Line transf), A_INF_840 (Dyn. grid support, Line transf)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Free function blocks <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 1021 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -10000.00 [%]	<b>Max</b> 10000.00 [%]	<b>Factory setting</b> 0.00 [%]
<b>p2901[0...n]</b>	<b>CO: Fixed value 2 [%]</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Free function blocks <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 1021 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -10000.00 [%]	<b>Max</b> 10000.00 [%]	<b>Factory setting</b> 0.00 [%]
<b>r2902[0...14]</b>	<b>CO: Fixed values [%]</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Free function blocks <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 1 <b>Func. diagram:</b> 1021 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]
<b>p2930[0...n]</b>	<b>CO: Fixed value M [Nm]</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Free function blocks <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> p2003	<b>Access level:</b> 3 <b>Func. diagram:</b> 1021 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -100000.00 [Nm]	<b>Max</b> 100000.00 [Nm]	<b>Factory setting</b> 0.00 [Nm]
<b>p2930[0...n]</b>	<b>CO: Fixed value F [N]</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Free function blocks <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 8_1 <b>Scaling:</b> p2003	<b>Access level:</b> 3 <b>Func. diagram:</b> 1021 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -100000.00 [N]	<b>Max</b> 100000.00 [N]	<b>Factory setting</b> 0.00 [N]
<b>p3016</b>	<b>MotId torque constant identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> 28_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Nm/A]	<b>Max</b> 100.00 [Nm/A]	<b>Factory setting</b> 0.00 [Nm/A]

<b>p3016</b>	<b>Motld force constant identified</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> 29_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [N/Arms]	<b>Max</b> 1000.00 [N/Arms]	<b>Factory setting</b> 0.00 [N/Arms]

<b>p3017</b>	<b>Motld voltage constant identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [Vrms]	<b>Max</b> 10000.0 [Vrms]	<b>Factory setting</b> 0.0 [Vrms]

<b>p3017</b>	<b>Motld voltage constant identified</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [Vrms s/m]	<b>Max</b> 1000.0 [Vrms s/m]	<b>Factory setting</b> 0.0 [Vrms s/m]

<b>p3020</b>	<b>Motld magnetizing current identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> REL, FEM	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [Arms]	<b>Max</b> 5000.000 [Arms]	<b>Factory setting</b> 0.000 [Arms]

<b>p3027</b>	<b>Motld optimum load angle identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [°]	<b>Max</b> 135.0 [°]	<b>Factory setting</b> 0.0 [°]

<b>p3028</b>	<b>Motld reluctance torque constant identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -1000.00 [mH]	<b>Max</b> 1000.00 [mH]	<b>Factory setting</b> 0.00 [mH]

<b>p3028</b>	<b>MotId reluctance force constant identified</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -1000.00 [mH]	<b>Max</b> 1000.00 [mH]	<b>Factory setting</b> 0.00 [mH]
<b>p3030</b>	<b>MotId angular commutation offset identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -180.00 [°]	<b>Max</b> 180.00 [°]	<b>Factory setting</b> 0.00 [°]
<b>p3031</b>	<b>MotId encoder inversion actual value identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin
<b>p3031</b>	<b>MotId encoder inversion actual value identified</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin
<b>p3041</b>	<b>MotId moment of inertia identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> 25_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1
	<b>Min</b> 0.000000 [kgm <sup>2</sup> ]	<b>Max</b> 100000.000000 [kgm <sup>2</sup> ]	<b>Factory setting</b> 0.000000 [kgm <sup>2</sup> ]
<b>p3041</b>	<b>MotId motor mass identified</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> 27_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1
	<b>Min</b> 0.000000 [kg]	<b>Max</b> 10000.000000 [kg]	<b>Factory setting</b> 0.000000 [kg]

<b>p3042</b>	<b>Motld load moment of inertia identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> 25_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [kgm²]	<b>Max</b> 100000.00000 [kgm²]	<b>Factory setting</b> 0.00000 [kgm²]

<b>p3042</b>	<b>Motld load mass identified</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> 27_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [kg]	<b>Max</b> 10000.00000 [kg]	<b>Factory setting</b> 0.00000 [kg]

<b>p3045</b>	<b>Motld force characteristic kT1 identified</b>		
SERVO (Ext M_ctrl, Lin), SERVO_840 (Ext M_ctrl, Lin), SERVO_AC (Ext M_ctrl, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -340.28235E36 [N/Arms]	<b>Max</b> 340.28235E36 [N/Arms]	<b>Factory setting</b> 0.00 [N/Arms]

<b>p3045</b>	<b>Motld torque characteristic kT1 identified</b>		
SERVO (Ext M_ctrl), SERVO_840 (Ext M_ctrl), SERVO_AC (Ext M_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -340.28235E36 [Nm/A]	<b>Max</b> 340.28235E36 [Nm/A]	<b>Factory setting</b> 0.00 [Nm/A]

<b>p3046</b>	<b>Motld force characteristic kT3 identified</b>		
SERVO (Ext M_ctrl, Lin), SERVO_840 (Ext M_ctrl, Lin), SERVO_AC (Ext M_ctrl, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p3046</b>	<b>Motld torque characteristic kT3 identified</b>		
SERVO (Ext M_ctrl), SERVO_840 (Ext M_ctrl), SERVO_AC (Ext M_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>p3047</b>	<b>MotId force characteristic kT5 identified</b>		
SERVO (Ext M_ctrl, Lin), SERVO_840 (Ext M_ctrl, Lin), SERVO_AC (Ext M_ctrl, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
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<b>p3047</b>	<b>MotId torque characteristic kT5 identified</b>		
SERVO (Ext M_ctrl), SERVO_840 (Ext M_ctrl), SERVO_AC (Ext M_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>p3048</b>	<b>MotId force characteristic kT7 identified</b>		
SERVO (Ext M_ctrl, Lin), SERVO_840 (Ext M_ctrl, Lin), SERVO_AC (Ext M_ctrl, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
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<b>p3048</b>	<b>MotId torque characteristic kT7 identified</b>		
SERVO (Ext M_ctrl), SERVO_840 (Ext M_ctrl), SERVO_AC (Ext M_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> ASM, REL, FEM	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>p3049[0...n]</b>	<b>MotId Speed at start of field weakening identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0.00000 [rpm]	210000.00000 [rpm]	0.00000 [rpm]

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<b>p3049[0...n]</b>	<b>MotId Speed at start of field weakening identified</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0.00000 [m/min]	1000.00000 [m/min]	0.00000 [m/min]

<b>p3050[0...n]</b>	<b>MotorId stator resistance identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 16_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [ohm]	<b>Max</b> 2000.00000 [ohm]	<b>Factory setting</b> 0.00000 [ohm]

<b>p3054[0...n]</b>	<b>MotId rotor resistance identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 16_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [ohm]	<b>Max</b> 300.00000 [ohm]	<b>Factory setting</b> 0.00000 [ohm]

<b>p3056[0...n]</b>	<b>MotId stator leakage inductance identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 15_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [mH]	<b>Max</b> 1000.00000 [mH]	<b>Factory setting</b> 0.00000 [mH]

<b>p3058[0...n]</b>	<b>MotId rotor leakage inductance identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 15_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [mH]	<b>Max</b> 1000.00000 [mH]	<b>Factory setting</b> 0.00000 [mH]

<b>p3060[0...n]</b>	<b>MotId magnetizing inductance identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> 15_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0349 <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [mH]	<b>Max</b> 10000.00000 [mH]	<b>Factory setting</b> 0.00000 [mH]

<b>p3070</b>	<b>MotId voltage emulation error final value identified</b>		
SERVO (Ext M_ctrl), SERVO_840 (Ext M_ctrl), SERVO_AC (Ext M_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [V]	<b>Max</b> 100.000 [V]	<b>Factory setting</b> 0.000 [V]



<b>p3071</b>	<b>Motld voltage emulation error current offset identified</b>		
SERVO (Ext M_ctrl), SERVO_840 (Ext M_ctrl), SERVO_AC (Ext M_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [A]	<b>Max</b> 100.000 [A]	<b>Factory setting</b> 0.000 [A]
<b>p3080</b>	<b>Motld flux controller P gain identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [A/Vs]	<b>Max</b> 999999.0 [A/Vs]	<b>Factory setting</b> 0.0 [A/Vs]
<b>p3081</b>	<b>Motld flux controller integral time identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> PEM, REL	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 10000 [ms]	<b>Factory setting</b> 0 [ms]
<b>p3082</b>	<b>Motld current controller P gain identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> 18_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.000 [V/A]	<b>Max</b> 100000.000 [V/A]	<b>Factory setting</b> 0.000 [V/A]
<b>p3083</b>	<b>Motld current controller integral time identified</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 1000.00 [ms]	<b>Factory setting</b> 0.00 [ms]
<b>p3088</b>	<b>Motld Motor model changeover speed operation with encoder ident.</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [rpm]	<b>Max</b> 210000.00000 [rpm]	<b>Factory setting</b> 0.00000 [rpm]

<b>p3088</b>	<b>MotId Motor model changeover vel. operat. with encod. ident.</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [m/min]	<b>Max</b> 1000.00000 [m/min]	<b>Factory setting</b> 0.00000 [m/min]
<b>p3090[0...n]</b>	<b>PolID elasticity-based configuration</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin
<b>p3091[0...n]</b>	<b>PolID elasticity-based ramp time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [ms]	<b>Max</b> 1000.0 [ms]	<b>Factory setting</b> 250.0 [ms]
<b>p3092[0...n]</b>	<b>PolID elasticity-based wait time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [ms]	<b>Max</b> 1000.0 [ms]	<b>Factory setting</b> 100.0 [ms]
<b>p3093[0...n]</b>	<b>PolID elasticity-based measurement number</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 6	<b>Max</b> 56	<b>Factory setting</b> 12
<b>p3094[0...n]</b>	<b>PolID elasticity-based deflection expected</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0000 [°]	<b>Max</b> 90.0000 [°]	<b>Factory setting</b> 0.0030 [°]

<b>p3094[0...n]</b>	<b>PolID elasticity-based deflection expected</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0000 [mm]	<b>Max</b> 90.0000 [mm]	<b>Factory setting</b> 0.0030 [mm]
<b>p3095[0...n]</b>	<b>PolID elasticity-based deflection permissible</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0000 [°]	<b>Max</b> 90.0000 [°]	<b>Factory setting</b> 1.0000 [°]
<b>p3095[0...n]</b>	<b>PolID elasticity-based deflection permissible</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0000 [mm]	<b>Max</b> 90.0000 [mm]	<b>Factory setting</b> 1.0000 [mm]
<b>p3096[0...n]</b>	<b>PolID elasticity-based current</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [Arms]	<b>Max</b> 20000.000 [Arms]	<b>Factory setting</b> 0.000 [Arms]
<b>r3097.0...31</b>	<b>BO: PolID elasticity-based status</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p3100</b>	<b>RTC time stamp mode</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p3101[0...1]</b>	<b>RTC set UTC time</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: U, T Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 0
	Min 0	Max 4294967295	Factory setting 0

<b>r3102[0...1]</b>	<b>RTC read UTC time</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>p3103</b>	<b>RTC synchronization source</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: U, T Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 3	Factory setting 0

<b>p3104</b>	<b>BI: RTC real time synchronization PING</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0

<b>r3107[0...3]</b>	<b>RTC synchronizing time</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r3108[0...1]</b>	<b>RTC last synchronization deviation</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p3109</b>	<b>RTC real time synchronization, tolerance window</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 1000 [ms]	<b>Factory setting</b> 100 [ms]
<b>p3110</b>	<b>External fault 3, power-up delay</b>		
All objects	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2546 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 1000 [ms]	<b>Factory setting</b> 0 [ms]
<b>p3111[0...n]</b>	<b>BI: External fault 3, enable</b>		
A_INF_840, B_INF_840, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 3405.2
<b>p3111[0...n]</b>	<b>BI: External fault 3, enable</b>		
A_INF, B_INF, S_INF, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1

<b>p3111</b>	<b>BI: External fault 3, enable</b>		
CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, HUB, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM54F_MA, TM54F_SL	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2546 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1

<b>p3112[0...n]</b>	<b>BI: External fault 3 enable negated</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p3112</b>	<b>BI: External fault 3 enable negated</b>		
CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, HUB, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM54F_MA, TM54F_SL	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2546 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>r3113.0...15</b>	<b>CO/BO: NAMUR message bit bar</b>		
All objects	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r3114.9...11</b>	<b>CO/BO: Messages status word global</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r3115[0...63]</b>	<b>Fault drive object initiating</b>		
All objects	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 1750, 8060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p3116</b>	<b>BI: Acknowledgement automatically suppressed</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p3117</b>	<b>Change safety message type</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(1) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>r3120[0...63]</b>	<b>Component number fault</b>		
All objects	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r3121[0...63]</b>	<b>Component number alarm</b>		
All objects	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8065 <b>Unit selection:</b> - <b>Expert list:</b> 1

	Min	Max	Factory setting
<b>r3122[0...63]</b>	<b>Diagnostic attribute fault</b>		
All objects	Can be changed: - Data type: Unsigned32 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 8060 Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	-
<b>r3123[0...63]</b>	<b>Diagnostic attribute alarm</b>		
All objects	Can be changed: - Data type: Unsigned32 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 8065 Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	-
<b>r3131</b>	<b>CO: Actual flt value</b>		
All objects	Can be changed: - Data type: Integer32 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 8060 Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	-
<b>r3132</b>	<b>CO: Actual component number</b>		
All objects	Can be changed: - Data type: Integer32 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 8060 Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	-
<b>p3135</b>	<b>Suppress active fault</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	Can be changed: U, T Data type: Unsigned32 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: 8060 Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	0000 0000 0000 0000 bin



<b>p3201[0...n]</b>	<b>Excitation current outside the tolerance threshold value</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.1 [%]	<b>Max</b> 100.0 [%]	<b>Factory setting</b> 10.0 [%]
<b>p3202[0...n]</b>	<b>Excitation current outside the tolerance hysteresis</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.1 [%]	<b>Max</b> 100.0 [%]	<b>Factory setting</b> 10.0 [%]
<b>p3203[0...n]</b>	<b>Excitation current outside the tolerance delay time</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [s]	<b>Max</b> 10.0 [s]	<b>Factory setting</b> 1.0 [s]
<b>p3204[0...n]</b>	<b>Flux outside the tolerance threshold value</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.1 [%]	<b>Max</b> 100.0 [%]	<b>Factory setting</b> 10.0 [%]
<b>p3205[0...n]</b>	<b>Flux outside the tolerance hysteresis</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.1 [%]	<b>Max</b> 50.0 [%]	<b>Factory setting</b> 10.0 [%]
<b>p3206[0...n]</b>	<b>Flux outside tolerance delay time</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> ASM, PEM, REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [s]	<b>Max</b> 10.0 [s]	<b>Factory setting</b> 5.0 [s]

<b>p3207[0...n]</b>	<b>Zero current signal threshold value</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Messages	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.01 [Arms]	<b>Max</b> 10000.00 [Arms]	<b>Factory setting</b> 1.00 [Arms]

<b>p3208[0...n]</b>	<b>Zero current signal hysteresis</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Messages	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.01 [Arms]	<b>Max</b> 10000.00 [Arms]	<b>Factory setting</b> 1.00 [Arms]

<b>p3209[0...n]</b>	<b>Zero current signal delay time</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> ASM, PEM, REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [s]	<b>Max</b> 10.00 [s]	<b>Factory setting</b> 0.02 [s]

<b>p3233[0...n]</b>	<b>Torque actual value filter, time constant</b>		
SERVO (Ext msg), SERVO_840 (Ext msg), SERVO_AC (Ext msg), VECTOR (Ext msg), VECTOR VECTOR_AC (Ext msg)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8013
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 1000000 [ms]	<b>Factory setting</b> 0 [ms]

<b>p3235</b>	<b>Phase failure signal motor monitoring time</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 2000 [ms]	<b>Factory setting</b> 320 [ms]

<b>p3236[0...n]</b>	<b>Speed threshold 7</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8012
	<b>P-Group:</b> Messages	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 3000.00 [rpm]	<b>Factory setting</b> 100.00 [rpm]
<b>p3237[0...n]</b>	<b>Hysteresis speed 7</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8012
	<b>P-Group:</b> Messages	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 200.00 [rpm]	<b>Factory setting</b> 2.00 [rpm]
<b>p3238[0...n]</b>	<b>OFF delay n_act_motor model = n_act external</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 8012
	<b>P-Group:</b> Messages	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [s]	<b>Max</b> 100.0 [s]	<b>Factory setting</b> 3.0 [s]
<b>p3290</b>	<b>Variable signaling function start</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned8	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 5301
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0010 bin
<b>p3291</b>	<b>CI: Variable signaling function signal source</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 5301
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p3292</b>	<b>Variable signaling function signal source address</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 5301
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1

	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex
<b>p3293</b>	<b>Variable signaling function signal source data type</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 5301 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 7	<b>Factory setting</b> 0
<b>r3294</b>	<b>BO: Variable signaling function output signal</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5301 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p3295</b>	<b>Variable signaling function threshold value</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5301 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -340.28235E36	<b>Max</b> 340.28235E36	<b>Factory setting</b> 0.000
<b>p3296</b>	<b>Variable signaling function hysteresis</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5301 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 340.28235E36	<b>Factory setting</b> 0.000
<b>p3297</b>	<b>Variable signaling function pickup delay</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5301 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 10000 [ms]	<b>Factory setting</b> 0 [ms]

<b>p3298</b>	<b>Variable signaling function dropout delay</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5301 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 10000 [ms]	<b>Factory setting</b> 0 [ms]
<b>p3299</b>	<b>Variable signaling function, sampling time</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 5301 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1.000 [ms]	<b>Max</b> 4.000 [ms]	<b>Factory setting</b> 4.000 [ms]
<b>p3320[0...n]</b>	<b>Fluid flow machine power point 1</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00	<b>Max</b> 100.00	<b>Factory setting</b> 25.00
<b>p3321[0...n]</b>	<b>Fluid flow machine speed point 1</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00	<b>Max</b> 100.00	<b>Factory setting</b> 0.00
<b>p3322[0...n]</b>	<b>Fluid flow machine power point 2</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00	<b>Max</b> 100.00	<b>Factory setting</b> 50.00
<b>p3323[0...n]</b>	<b>Fluid flow machine speed point 2</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00	<b>Max</b> 100.00	<b>Factory setting</b> 25.00

<b>p3324[0...n]</b>	<b>Fluid flow machine power point 3</b>		
VECTOR, VECTOR_AC	Can be changed: U, T Data type: FloatingPoint32 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 77.00
	Min 0.00	Max 100.00	
<b>p3325[0...n]</b>	<b>Fluid flow machine speed point 3</b>		
VECTOR, VECTOR_AC	Can be changed: U, T Data type: FloatingPoint32 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 50.00
	Min 0.00	Max 100.00	
<b>p3326[0...n]</b>	<b>Fluid flow machine power point 4</b>		
VECTOR, VECTOR_AC	Can be changed: U, T Data type: FloatingPoint32 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 92.00
	Min 0.00	Max 100.00	
<b>p3327[0...n]</b>	<b>Fluid flow machine speed point 4</b>		
VECTOR, VECTOR_AC	Can be changed: U, T Data type: FloatingPoint32 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 75.00
	Min 0.00	Max 100.00	
<b>p3328[0...n]</b>	<b>Fluid flow machine power point 5</b>		
VECTOR, VECTOR_AC	Can be changed: U, T Data type: FloatingPoint32 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 100.00
	Min 0.00	Max 100.00	
<b>p3329[0...n]</b>	<b>Fluid flow machine speed point 5</b>		
VECTOR, VECTOR_AC	Can be changed: U, T Data type: FloatingPoint32 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 100.00
	Min 0.00	Max 100.00	

<b>p3400</b>	<b>Infeed configuration word</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8940 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 1010 bin
<b>r3402</b>	<b>Infeed internal state</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8832, 8932 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 12	<b>Factory setting</b> -
<b>r3402</b>	<b>Infeed status internal BIC</b>		
B_INF, B_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8932 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 6	<b>Factory setting</b> -
<b>r3405.0...7</b>	<b>CO/BO: Infeed status word</b>		
A_INF, A_INF_840, S_INF, S_INF_840, SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8828, 8928 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r3405.7</b>	<b>CO/BO: Infeed status word</b>		
B_INF, B_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r3405.1...8</b>	<b>CO/BO: Status word DC-link control</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1

	Min	Max	Factory setting
	-	-	-
<b>p3409</b>	<b>Infeed line frequency setting</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 1
<b>p3410</b>	<b>Infeed identification method</b>		
A_INF_840, S_INF_840	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 5	<b>Factory setting</b> 0
<b>p3410</b>	<b>Infeed identification method</b>		
A_INF, S_INF	<b>Can be changed:</b> C2(1), T <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 5	<b>Factory setting</b> 5
<b>r3411[0...1]</b>	<b>Infeed identified inductance</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [mH]	<b>Max</b> - [mH]	<b>Factory setting</b> - [mH]
<b>r3412[0...1]</b>	<b>Infeed DC link capacitance identified</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [mF]	<b>Max</b> - [mF]	<b>Factory setting</b> - [mF]



<b>r3414[0...1]</b>	<b>Infeed, line supply inductance identified</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [mH]	<b>Max</b> - [mH]	<b>Factory setting</b> - [mH]
<b>p3415[0...1]</b>	<b>Infeed excitation current L identification</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1.00 [%]	<b>Max</b> 75.00 [%]	<b>Factory setting</b> 20.00 [%]
<b>p3416</b>	<b>Infeed excitation amplitude C identification</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.10 [%]	<b>Max</b> 20.00 [%]	<b>Factory setting</b> 2.00 [%]
<b>p3417</b>	<b>Infeed excitation frequency C identification</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 10.00 [Hz]	<b>Max</b> 200.00 [Hz]	<b>Factory setting</b> 50.00 [Hz]
<b>p3421</b>	<b>Infeed inductance</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.001 [mH]	<b>Max</b> 2000.000 [mH]	<b>Factory setting</b> 1.000 [mH]
<b>p3422</b>	<b>Infeed DC link capacitance</b>		
A_INF, A_INF_840, S_INF, S_INF_840, SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1

	Min	Max	Factory setting
	0.20 [mF]	2000.00 [mF]	2.00 [mF]
<b>p3422</b>	<b>DC-link capacitance, total</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	Min 0.20 [mF]	Max 2000.00 [mF]	Factory setting 2.00 [mF]
<b>p3424</b>	<b>Infeed, line supply inductance</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	Min 0.001 [mH]	Max 1000.000 [mH]	Factory setting 0.001 [mH]
<b>p3425[0...1]</b>	<b>Infeed control loop parameter scaling</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	Min 1.00 [%]	Max 1000.00 [%]	Factory setting 100.00 [%]
<b>p3440</b>	<b>Smart Mode configuration</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	Min -	Max -	Factory setting 0001 bin
<b>p3441[0...1]</b>	<b>Smart Mode Vdc ctrl Kp/Tn</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	Min 0.00 [%]	Max 1000.00 [%]	Factory setting 100.00 [%]

<b>p3442[0...1]</b>	<b>Smart Mode smoothing times</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 20.00 [ms]	<b>Factory setting</b> [0] 0.25 [ms] [1] 1.00 [ms]
<b>p3443[0...1]</b>	<b>Smart Mode line commutation current threshold values</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 1000.00 [%]	<b>Factory setting</b> [0] 100.00 [%] [1] 200.00 [%]
<b>p3444[0...1]</b>	<b>Smart Mode voltages</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 105.00 [%]	<b>Factory setting</b> [0] 90.00 [%] [1] 100.50 [%]
<b>r3445[0...1]</b>	<b>Smart Mode voltages display</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_2 <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]
<b>r3446[0...2]</b>	<b>Smart Mode currents</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_4 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]
<b>r3447</b>	<b>Smart Mode OFF angle</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2005	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1

	Min - [°]	Max - [°]	Factory setting - [°]
<b>p3448[0...1] Smart Mode effective inductance/DC-link capacitance</b>			
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 10.00 [%]	<b>Max</b> 10000.00 [%]	<b>Factory setting</b> [0] 110.00 [%] [1] 100.00 [%]
<b>r3452 Infeed PLL status</b>			
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 7	<b>Factory setting</b> -
<b>p3458[0...1] Infeed PLL smoothing time</b>			
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1.0 [ms]	<b>Max</b> 1000.0 [ms]	<b>Factory setting</b> [0] 23.1 [ms] [1] 9.1 [ms]
<b>r3460 Infeed PLL system deviation</b>			
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [°]	<b>Max</b> - [°]	<b>Factory setting</b> - [°]
<b>r3461 Infeed PLL system deviation after filtering</b>			
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [°]	<b>Max</b> - [°]	<b>Factory setting</b> - [°]

<b>p3462</b>	<b>Infeed line fault maximum time</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [s]	<b>Max</b> 10000.00 [s]	<b>Factory setting</b> 0.00 [s]
<b>p3463</b>	<b>Infeed, line angle change, phase failure detection</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -180.0 [°]	<b>Max</b> 180.0 [°]	<b>Factory setting</b> 15.0 [°]
<b>r3467[0...3]</b>	<b>CO: Infeed current alpha/beta</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]
<b>r3468[0...5]</b>	<b>CO: Infeed voltage alpha/beta</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]
<b>p3469[0...n]</b>	<b>Latch delay time correction, zero crossover detection</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -10000.0 [µs]	<b>Max</b> 10000.0 [µs]	<b>Factory setting</b> 0.0 [µs]
<b>r3470</b>	<b>Infeed active current filter</b>		
A_INF, A_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_2 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

<b>r3471</b>	<b>Infeed reactive current filter</b>		
A_INF, A_INF_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

<b>p3472[0...4]</b>	<b>Line supply PLL line supply voltage smoothing time</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 1.0 [ms]	<b>Max</b> 30000.0 [ms]	<b>Factory setting</b> [0] 200.0 [ms] [1] 100.0 [ms] [2] 5000.0 [ms] [3] 8.0 [ms] [4] 8.0 [ms]

<b>p3480</b>	<b>Infeed modulation depth limit</b>		
A_INF, A_INF_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8940
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 50.0 [%]	<b>Max</b> 110.0 [%]	<b>Factory setting</b> 97.0 [%]

<b>p3481</b>	<b>Infeed standby controller dynamic response</b>		
A_INF, A_INF_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8940
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [ms]	<b>Max</b> 1000.0 [ms]	<b>Factory setting</b> 7.5 [ms]

<b>r3485</b>	<b>Infeed standby controller output</b>		
A_INF, A_INF_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8940
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2001	<b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

<b>p3490</b>	<b>Infeed delay time OFF1 command</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> - <b>Min</b> 0.0 [ms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> - <b>Max</b> 1000000.0 [ms]	<b>Access level:</b> 2 <b>Func. diagram:</b> 8732, 8832, 8932 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0.0 [ms]
<b>p3491</b>	<b>Infeed I-offset measurement monitoring time</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Commands <b>Not for motor type:</b> - <b>Min</b> 0 [ms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> - <b>Max</b> 65000 [ms]	<b>Access level:</b> 4 <b>Func. diagram:</b> 8832, 8932 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 2000 [ms]
<b>p3492</b>	<b>Infeed, line supply undervoltage delay time</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Commands <b>Not for motor type:</b> - <b>Min</b> 0 [s]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> - <b>Max</b> 300 [s]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0 [s]
<b>p3508</b>	<b>Infeed step-up factor maximum</b>		
A_INF, A_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> - <b>Min</b> 1.60	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> - <b>Max</b> 3.00	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 1.60
<b>p3510</b>	<b>Infeed DC link voltage setpoint</b>		
A_INF, A_INF_840, SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> - <b>Min</b> 100.00 [V]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_2 <b>Scaling:</b> p2001 <b>Max</b> 1600.00 [V]	<b>Access level:</b> 2 <b>Func. diagram:</b> 1774, 8940 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting</b> 600.00 [V]
<b>p3510</b>	<b>DC link voltage setpoint</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_2 <b>Scaling:</b> p2001	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1

	Min 100.00 [V]	Max 1600.00 [V]	Factory setting 600.00 [V]
<b>p3511</b>	<b>CI: Infeed DC link voltage supplementary setpoint</b>		
A_INF, A_INF_840, SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> 8940 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p3511</b>	<b>CI: DC-link voltage supplementary setpoint</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p3513</b>	<b>BI: Inhibit voltage-controlled operation</b>		
A_INF, A_INF_840, SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p3513</b>	<b>BI: Inhibit voltage-controlled operation</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1
<b>p3514</b>	<b>Infeed supplementary active current steady-state</b>		
A_INF, A_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_2 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8940 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000.00 [Arms]	<b>Max</b> 1000.00 [Arms]	<b>Factory setting</b> 0.00 [Arms]



<b>p3515</b>	<b>CI: Infeed supplementary active current</b>		
A_INF, A_INF_840	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8940
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2002	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p3516</b>	<b>Infeed current distribution factor</b>		
A_INF, A_INF_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8940, 8942
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0.00 [%]	100.00 [%]	100.00 [%]
<b>r3517</b>	<b>CO: Infeed active current controller unlimited setpoint</b>		
A_INF, A_INF_840, SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8940
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2002	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	- [Arms]	- [Arms]	- [Arms]
<b>r3517</b>	<b>CO: DC-link controller active current setpoint</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2002	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	- [Arms]	- [Arms]	- [Arms]
<b>p3520[0...3]</b>	<b>CI: Infeed power pre-control</b>		
A_INF, A_INF_840, SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p3520[0...3]</b>	<b>CI: DC link pre-control power</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1

	Min	Max	Factory setting
	-	-	0
<hr/>			
<b>p3521[0...3]</b>	<b>Infeed pre-control power scaling</b>		
A_INF, A_INF_840, SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -100000.00000 [%]	<b>Max</b> 100000.00000 [%]	<b>Factory setting</b> 100.00000 [%]
<hr/>			
<b>p3521[0...3]</b>	<b>DC link pre-control power scaling</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -100000.00000 [%]	<b>Max</b> 100000.00000 [%]	<b>Factory setting</b> 100.00000 [%]
<hr/>			
<b>p3523[0...3]</b>	<b>Infeed pre-control power smoothing</b>		
SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 1000 [ms]	<b>Factory setting</b> 0 [ms]
<hr/>			
<b>p3523[0...3]</b>	<b>DC link pre-control power smoothing</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 1000 [ms]	<b>Factory setting</b> 0 [ms]
<hr/>			
<b>p3528</b>	<b>CI: Infeed current limit motoring scaling</b>		
A_INF, A_INF_840	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 8940 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1

<b>p3529</b>	<b>CI: Infeed current limit regenerative scaling</b>		
A_INF, A_INF_840	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8940
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	1
<b>p3530</b>	<b>Infeed current limit motoring</b>		
A_INF, A_INF_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8940
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	1.00 [Arms]	100000.00 [Arms]	10000.00 [Arms]
<b>p3531</b>	<b>Infeed current limit regenerative</b>		
A_INF, A_INF_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8940
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-100000.00 [Arms]	-1.00 [Arms]	-10000.00 [Arms]
<b>p3532</b>	<b>BI: Infeed, inhibit motoring</b>		
A_INF, A_INF_840	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8920
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p3533</b>	<b>BI: Infeed, inhibit generator mode</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8820, 8920
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>r3534</b>	<b>Infeed line filter maximum current</b>		
A_INF, A_INF_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Converter	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	- [Arms]	- [Arms]	- [Arms]

<b>r3554</b>	<b>Infeed Vdc controller integral component</b>		
A_INF, A_INF_840, SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_2 <b>Scaling:</b> p2002	<b>Access level:</b> 2 <b>Func. diagram:</b> 8940 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

<b>r3554</b>	<b>Vdc controller integral component</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_2 <b>Scaling:</b> p2002	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

<b>p3555[0...5]</b>	<b>Infeed Vdc controller integral component fast intervention</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> [0] 2.00 [%] [1] 102.00 [%] [2] 0.00 [%] [3] 5.00 [%] [4] 100.00 [%] [5] 0.00 [%]

<b>p3560</b>	<b>Infeed Vdc controller proportional gain</b>		
A_INF, A_INF_840, SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8940 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.01 [%]	<b>Max</b> 1000.00 [%]	<b>Factory setting</b> 100.00 [%]

<b>p3560</b>	<b>Vdc controller proportional gain</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.01 [%]	<b>Max</b> 1000.00 [%]	<b>Factory setting</b> 100.00 [%]

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<b>p3562</b>	<b>Infeed,Vdc controller integral time</b>		
A_INF, A_INF_840, SERVO (Tech_ctrl), SERVO_840 (Tech_ctrl), SERVO_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8940 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.10 [%]	<b>Max</b> 100000.00 [%]	<b>Factory setting</b> 100.00 [%]

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<b>p3562</b>	<b>Vdc controller integral time</b>		
VECTOR (Tech_ctrl), VECTOR_AC (Tech_ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.10 [%]	<b>Max</b> 100000.00 [%]	<b>Factory setting</b> 100.00 [%]

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<b>p3564</b>	<b>Infeed Vdc monitor, time constant</b>		
A_INF, A_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [ms]	<b>Max</b> 100.0 [ms]	<b>Factory setting</b> 0.2 [ms]

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<b>p3566</b>	<b>Infeed Vdc ramp duration</b>		
A_INF, A_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8932 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 40 [ms]	<b>Max</b> 1000 [ms]	<b>Factory setting</b> 100 [ms]

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<b>p3570</b>	<b>CI: Master/slave active current setpoint</b>		
A_INF (Master/ Slave), A_INF_840 (Master/Slave)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> 8948 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 3573[0]

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<b>p3571[0...3]</b>	<b>CI: Master/slave active current setpoint, multiplexer input</b>		
A_INF (Master/ Slave), A_INF_840 (Master/Slave)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> 8948 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p3572</b>	<b>CI: Master/slave active current setpoint, multiplexer selection</b>		
A_INF (Master/Slave), A_INF_840 (Master/Slave)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8948 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>r3573</b>	<b>CO: Master/slave active current setpoint, multiplexer output</b>		
A_INF (Master/Slave), A_INF_840 (Master/Slave)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_2 <b>Scaling:</b> p2002  <b>Max</b> - [Arms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 8948 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]

<b>p3574[0...3]</b>	<b>Master/slave DC link voltage monitoring</b>		
A_INF (Master/Slave), A_INF_840 (Master/Slave)	<b>Can be changed:</b> C2(1), T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -  <b>Min</b> -60 [V]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 60 [V]	<b>Access level:</b> 3 <b>Func. diagram:</b> 8948 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> [0] 20 [V] [1] -20 [V] [2] 5 [V] [3] -5 [V]

<b>r3575.0...2</b>	<b>BO: Master/slave DC link voltage monitoring status</b>		
A_INF (Master/Slave), A_INF_840 (Master/Slave)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8948 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>p3576[0...5]</b>	<b>Master/slave current distribution factor, multiplexer input</b>		
A_INF (Master/Slave), A_INF_840 (Master/Slave)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> 0.00 [%]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 100.00 [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> 8948 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 100.00 [%]

<b>p3577</b>	<b>CI: Master/slave current distribution factor, multiplexer selection</b>		
A_INF (Master/Slave), A_INF_840 (Master/Slave)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8948 <b>Unit selection:</b> - <b>Expert list:</b> 1

	Min	Max	Factory setting
	-	-	0
<b>r3578</b>	<b>CO: Master/slave current distribution factor, multiplexer output</b>		
A_INF (Master/Slave), A_INF_840 (Master/Slave)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> - [%]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> 8948 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [%]
<b>p3579</b>	<b>CI: Master/Slave current distribution factor</b>		
A_INF (Master/Slave), A_INF_840 (Master/Slave)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8948 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 3578[0]
<b>r3602</b>	<b>Infeed control status</b>		
A_INF, A_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 8	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -
<b>p3603</b>	<b>Infeed current pre-control factor D component</b>		
A_INF, A_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> 0.00 [%]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 500.00 [%]	<b>Access level:</b> 4 <b>Func. diagram:</b> 8946 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 100.00 [%]
<b>r3606</b>	<b>Infeed active current controller system deviation</b>		
A_INF, A_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> - [Arms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_2 <b>Scaling:</b> p2002  <b>Max</b> - [Arms]	<b>Access level:</b> 2 <b>Func. diagram:</b> 8946 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Arms]

<b>r3608</b>	<b>Infeed reactive current controller system deviation</b>		
A_INF, A_INF_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8946
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2002	<b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

<b>p3610</b>	<b>Infeed reactive current fixed setpoint</b>		
A_INF, A_INF_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1774, 8946
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -10000.0 [Arms]	<b>Max</b> 10000.0 [Arms]	<b>Factory setting</b> 0.0 [Arms]

<b>p3611</b>	<b>CI: Infeed reactive current supplementary setpoint</b>		
A_INF, A_INF_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8946
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2002	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p3612</b>	<b>CI: Infeed reactive power, precontrol</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> r2004	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p3614[0...1]</b>	<b>Infeed current actual value filter smoothing time</b>		
A_INF, A_INF_840	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8950
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.000 [ms]	<b>Max</b> 2.000 [ms]	<b>Factory setting</b> 0.000 [ms]

<b>p3615</b>	<b>Infeed current controller P gain</b>		
A_INF, A_INF_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8946
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 1000.00 [%]	<b>Factory setting</b> 100.00 [%]



<b>p3617</b>	<b>Infeed current controller integral time</b>		
A_INF, A_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8946 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.10 [%]	<b>Max</b> 100000.00 [%]	<b>Factory setting</b> 100.00 [%]
<b>r3618</b>	<b>Infeed active current controller, integral component</b>		
A_INF, A_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_1 <b>Scaling:</b> p2001	<b>Access level:</b> 2 <b>Func. diagram:</b> 8946 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]
<b>r3619</b>	<b>Infeed reactive current controller integral component</b>		
A_INF, A_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_1 <b>Scaling:</b> p2001	<b>Access level:</b> 2 <b>Func. diagram:</b> 8946 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]
<b>p3620</b>	<b>Infeed current controller adaptation lower application threshold</b>		
A_INF, A_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 100.00 [%]	<b>Factory setting</b> 40.00 [%]
<b>p3622</b>	<b>Infeed current controller adaptation reduction factor</b>		
A_INF, A_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.01 [%]	<b>Max</b> 100.00 [%]	<b>Factory setting</b> 85.00 [%]
<b>p3624[0...1]</b>	<b>Infeed harmonics controller order</b>		
A_INF, A_INF_840	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 5	<b>Max</b> 13	<b>Factory setting</b> [0] 5 [1] 7

<b>p3625[0...1]</b>	<b>Infeed harmonics controller scaling</b>		
A_INF, A_INF_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> PERCENT	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 300.0 [%]	<b>Factory setting</b> 100.0 [%]

<b>r3626[0...1]</b>	<b>Infeed harmonics control output</b>		
A_INF, A_INF_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 5_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]

<b>r3632</b>	<b>Infeed input voltage Vsd (active component)</b>		
A_INF, A_INF_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1774, 8946, 8950
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 5_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2001	<b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]

<b>r3633</b>	<b>Infeed input voltage Usq (reactive component)</b>		
A_INF, A_INF_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1774, 8946, 8950
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 5_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2001	<b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]

<b>r3635</b>	<b>CO: Infeed input voltage angle</b>		
A_INF, A_INF_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8950
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [°]	<b>Max</b> - [°]	<b>Factory setting</b> - [°]

<b>r3637[0...1]</b>	<b>CO: Negative phase-sequence system control current setpoint</b>		
A_INF (Dyn. grid support, Line transf), A_INF_840 (Dyn. grid support, Line transf)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> 6_2	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2002	<b>Expert list:</b> 1

	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]
<b>r3638[0...3]</b>	<b>CO: Negative phase-sequence system control current actual value</b>		
A_INF (Dyn. grid support, Line transf), A_INF_840 (Dyn. grid support, Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_2 <b>Scaling:</b> p2002	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]
<b>p3639</b>	<b>Negative phase-sequence system control integral time</b>		
A_INF (Dyn. grid support, Line transf), A_INF_840 (Dyn. grid support, Line transf)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 300.00 [%]	<b>Factory setting</b> 100.00 [%]
<b>p3640</b>	<b>Negative phase-sequence system control operating mode</b>		
A_INF (Dyn. grid support, Line transf), A_INF_840 (Dyn. grid support, Line transf)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin
<b>p3641[0...1]</b>	<b>CI: Negative phase-sequence system control setpoint</b>		
A_INF (Dyn. grid support, Line transf), A_INF_840 (Dyn. grid support, Line transf)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2002	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>r3642[0...1]</b>	<b>CO: Negative phase-sequence system control manipulated variable</b>		
A_INF (Dyn. grid support, Line transf), A_INF_840 (Dyn. grid support, Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

<b>r3643</b>	<b>Neg phase-sequence system control DC link voltage correction</b>		
A_INF (Dyn. grid support, Line transf), A_INF_840 (Dyn. grid support, Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

<b>p3660</b>	<b>VSM input line supply voltage, voltage scaler</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 9880 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 100000.00 [%]	<b>Factory setting</b> 0.00 [%]

<b>p3660[0...n]</b>	<b>VSM input line supply voltage, voltage scaler</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 9880 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 100000.00 [%]	<b>Factory setting</b> 0.00 [%]

<b>r3661</b>	<b>CO: VSM input line supply voltage u1 - u2</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_3 <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> 8850, 8950, 9880 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

<b>r3661[0...n]</b>	<b>CO: VSM input line supply voltage u1 - u2</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> 5_3 <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

<b>r3662</b>	<b>CO: VSM input line supply voltage u2 - u3</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_3 <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> 8850, 8950, 9880 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1

	Min - [V]	Max - [V]	Factory setting - [V]
<b>r3662[0...n]</b> VECTOR, VECTOR_AC	<b>CO: VSM input line supply voltage u2 - u3</b>  Can be changed: - Data type: FloatingPoint32 P-Group: Closed-loop control Not for motor type: -  Min - [V]	Calculated: - Dynamic index: p0150 Units group: 5_3 Scaling: p2001  Max - [V]	Access level: 3 Func. diagram: - Unit selection: p0505 Expert list: 1  Factory setting - [V]
<b>r3664.0...1</b> A_INF, A_INF_840, S_INF, S_INF_840	<b>BO: VSM temperature evaluation, status</b>  Can be changed: - Data type: Unsigned16 P-Group: Terminals Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: 9886 Unit selection: - Expert list: 1  Factory setting -
<b>r3664[0...n]</b> VECTOR, VECTOR_AC	<b>CO: VSM temperature evaluation, status</b>  Can be changed: - Data type: Unsigned16 P-Group: Terminals Not for motor type: -  Min -	Calculated: - Dynamic index: p0150 Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: 9886 Unit selection: - Expert list: 1  Factory setting -
<b>p3665[0...n]</b> A_INF, A_INF_840, S_INF, S_INF_840	<b>VSM temperature evaluation, sensor type</b>  Can be changed: T Data type: Integer16 P-Group: Closed-loop control Not for motor type: -  Min 0	Calculated: - Dynamic index: p0140 Units group: - Scaling: -  Max 2	Access level: 3 Func. diagram: 9886 Unit selection: - Expert list: 1  Factory setting 0
<b>p3665[0...n]</b> VECTOR, VECTOR_AC	<b>VSM temperature evaluation, sensor type</b>  Can be changed: T Data type: Integer16 P-Group: Closed-loop control Not for motor type: -  Min 0	Calculated: - Dynamic index: p0150 Units group: - Scaling: -  Max 2	Access level: 3 Func. diagram: 9886 Unit selection: - Expert list: 1  Factory setting 0

<b>r3666</b>	<b>CO: VSM temperature KTY</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> 9886 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

<b>r3666[0...n]</b>	<b>CO: VSM temperature KTY</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> 9886 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

<b>p3667</b>	<b>VSM line filter overtemperature alarm threshold</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 4 <b>Func. diagram:</b> 9886 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0 [°C]	<b>Max</b> 301 [°C]	<b>Factory setting</b> 150 [°C]

<b>p3667[0...n]</b>	<b>VSM line filter overtemperature alarm threshold</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> 9886 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [°C]	<b>Max</b> 301.00 [°C]	<b>Factory setting</b> 150.00 [°C]

<b>p3668</b>	<b>VSM line filter overtemperature shutdown threshold</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 4 <b>Func. diagram:</b> 9886 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0 [°C]	<b>Max</b> 301 [°C]	<b>Factory setting</b> 180 [°C]

<b>p3668[0...n]</b>	<b>VSM line filter overtemperature shutdown threshold</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> 9886 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [°C]	<b>Max</b> 301.00 [°C]	<b>Factory setting</b> 180.00 [°C]

<b>p3669</b>	<b>VSM line filter overtemperature hysteresis</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2006	<b>Access level:</b> 4 <b>Func. diagram:</b> 9886 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1.0 [K]	<b>Max</b> 50.0 [K]	<b>Factory setting</b> 3.0 [K]
<b>p3669[0...n]</b>	<b>VSM line filter overtemperature hysteresis</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> 21_2 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> 9886 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 1.00 [K]	<b>Max</b> 50.00 [K]	<b>Factory setting</b> 3.00 [K]
<b>p3670</b>	<b>VSM 10 V input CT gain</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> 9880 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [A]	<b>Max</b> 1000.000 [A]	<b>Factory setting</b> 1.000 [A]
<b>p3670[0...n]</b>	<b>VSM 10 V input CT gain</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> - <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> 9880 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [A]	<b>Max</b> 1000.000 [A]	<b>Factory setting</b> 1.000 [A]
<b>r3671</b>	<b>CO: VSM 10 V input CT 1 actual value</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> 9880 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]
<b>r3671[0...n]</b>	<b>CO: VSM 10 V input CT 1 actual value</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> - <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> 9880 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]

<b>r3672</b>	<b>CO: VSM 10 V input CT 2 actual value</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 9880
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2002	<b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]

<b>r3672[0...n]</b>	<b>CO: VSM 10 V input CT 2 actual value</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> p0150	<b>Func. diagram:</b> 9880
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2002	<b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]

<b>r3673</b>	<b>CO: VSM 10 V input 1 actual value</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 9880
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2001	<b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

<b>r3673[0...n]</b>	<b>CO: VSM 10 V input 1 actual value</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> p0150	<b>Func. diagram:</b> 9880
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2001	<b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

<b>r3674</b>	<b>CO: VSM 10 V input 2 actual value</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 9880
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2001	<b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

<b>r3674[0...n]</b>	<b>CO: VSM 10 V input 2 actual value</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> p0150	<b>Func. diagram:</b> 9880
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2001	<b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]



<b>p3676</b>	<b>VSM line filter capacitance alarm threshold</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -  <b>Min</b> 0.00 [%]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 100.00 [%]	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [%]
<b>r3677[0...2]</b>	<b>CO: VSM line filter capacitance</b>		
A_INF, A_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> - [μF]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [μF]	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [μF]
<b>p3678[0...1]</b>	<b>Filter monitoring threshold values</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> C2(1) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -  <b>Min</b> 0.00 [%]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 10000.00 [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> 7991 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> [0] 0.00 [%] [1] 0.00 [%]
<b>p3679[0...1]</b>	<b>Transformer filter monitoring times</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> C2(1) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -  <b>Min</b> 0.00 [ms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 40.00 [ms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 7991 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> [0] 20.00 [ms] [1] 0.50 [ms]
<b>p3680</b>	<b>BI: Braking Module internal inhibit</b>		
B_INF, B_INF_840	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> - <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0
<b>p3681</b>	<b>BI: Activating Braking Module internal DC link fast discharge</b>		
B_INF, B_INF_840	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1

	Min	Max	Factory setting
	-	-	0
<b>p3682</b>	<b>Braking Module internal DC link fast discharge delay time</b>		
B_INF, B_INF_840	Can be changed: C1(3), T Data type: Unsigned32 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 500 [ms]	Max 4294967295 [ms]	Factory setting 1000 [ms]
<b>p3683</b>	<b>Braking Module internal activation threshold brake chopper</b>		
B_INF, B_INF_840	Can be changed: C2(1) Data type: FloatingPoint32 P-Group: Converter Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 110.00 [V]	Max 780.00 [V]	Factory setting 760.00 [V]
<b>r3685</b>	<b>BO: Digital Braking Module: Pre-alarm I2t shutdown</b>		
B_INF, B_INF_840	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r3686</b>	<b>BO: Digital Braking Module Fault</b>		
B_INF, B_INF_840	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r3687</b>	<b>BO: Digital Braking Module pre-alarm overtemperature</b>		
B_INF, B_INF_840	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r3688</b>	<b>BO: Braking Module internal overtemperature shutdown</b>		
B_INF, B_INF_840	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r3689</b>	<b>BO: Digital Braking Module Uce fault</b>		
B_INF, B_INF_840	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>p3700</b>	<b>APC configuration</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	Can be changed: U, T Data type: Unsigned16 P-Group: Closed-loop control Not for motor type: REL  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 7012 Unit selection: - Expert list: 1  Factory setting 0000 0000 0000 0000 bin
<b>p3701</b>	<b>APC enc sel</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	Can be changed: C1(4) Data type: Integer16 P-Group: Data sets Not for motor type: -  Min 2	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 3	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 2
<b>p3702[0...n]</b>	<b>APC load speed/motor speed weighting</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	Can be changed: U, T Data type: FloatingPoint32 P-Group: Setpoints Not for motor type: -  Min 0.000	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -  Max 1.000	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 1.000
<b>p3704[0...n]</b>	<b>APC filter activation</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	Can be changed: U, T Data type: Unsigned16 P-Group: Closed-loop control Not for motor type: REL  Min -	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: 7012 Unit selection: - Expert list: 1  Factory setting 0000 0000 0000 0000 bin

<b>p3705[0...n]</b>	<b>APC filter type</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0000 0000 0000 0000 bin
	<b>Min</b> -	<b>Max</b> -	

<b>p3706[0...n]</b>	<b>APC sub-sampling, filter 2.x</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 1
	<b>Min</b> 1	<b>Max</b> 64	

<b>p3707[0...n]</b>	<b>APC sub-sampling, filter 3.x</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 1
	<b>Min</b> 1	<b>Max</b> 64	

<b>p3708[0...n]</b>	<b>APC velocity actual value smoothing time encoder 2</b>		
SERVO (APC, Lin), SERVO_840 (APC, Lin), SERVO_AC (APC, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4711 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [ms]
	<b>Min</b> 0.00 [ms]	<b>Max</b> 50.00 [ms]	

<b>p3708[0...n]</b>	<b>APC speed actual value smoothing time encoder 2</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4711 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [ms]
	<b>Min</b> 0.00 [ms]	<b>Max</b> 50.00 [ms]	

<b>p3709[0...n]</b>	<b>APC velocity actual value smoothing time encoder 3</b>		
SERVO (APC, Lin), SERVO_840 (APC, Lin), SERVO_AC (APC, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4711 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [ms]
	<b>Min</b> 0.00 [ms]	<b>Max</b> 50.00 [ms]	

<b>p3709[0...n]</b>	<b>APC speed actual value smoothing time encoder 3</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4711 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 50.00 [ms]	<b>Factory setting</b> 0.00 [ms]
<b>p3711[0...n]</b>	<b>APC filter 1.1 denominator natural frequency</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 2000.0 [Hz]
<b>p3712[0...n]</b>	<b>APC filter 1.1 denominator damping</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.050	<b>Max</b> 10.000	<b>Factory setting</b> 0.700
<b>p3713[0...n]</b>	<b>APC filter 1.1 numerator natural frequency</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 2000.0 [Hz]
<b>p3714[0...n]</b>	<b>APC filter 1.1 numerator damping</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 10.000	<b>Factory setting</b> 0.700
<b>p3721[0...n]</b>	<b>APC filter 2.1 denominator natural frequency</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 2000.0 [Hz]

<b>p3722[0...n]</b>	<b>APC filter 2.1 denominator damping</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.700
	<b>Min</b> 0.050	<b>Max</b> 10.000	

<b>p3723[0...n]</b>	<b>APC filter 2.1 numerator natural frequency</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 2000.0 [Hz]
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	

<b>p3724[0...n]</b>	<b>APC filter 2.1 numerator damping</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.700
	<b>Min</b> 0.000	<b>Max</b> 10.000	

<b>p3726[0...n]</b>	<b>APC filter 2.2 denominator natural frequency</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 2000.0 [Hz]
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	

<b>p3727[0...n]</b>	<b>APC filter 2.2 denominator damping</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.700
	<b>Min</b> 0.050	<b>Max</b> 10.000	

<b>p3728[0...n]</b>	<b>APC filter 2.2 numerator natural frequency</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 2000.0 [Hz]
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	

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<b>p3729[0...n]</b>	<b>APC filter 2.2 numerator damping</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7029 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 10.000	<b>Factory setting</b> 0.700

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<b>p3731[0...n]</b>	<b>APC filter 3.1 denominator natural frequency</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 2000.0 [Hz]

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<b>p3732[0...n]</b>	<b>APC filter 3.1 denominator damping</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.050	<b>Max</b> 10.000	<b>Factory setting</b> 0.700

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<b>p3733[0...n]</b>	<b>APC filter 3.1 numerator natural frequency</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 2000.0 [Hz]

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<b>p3734[0...n]</b>	<b>APC filter 3.1 numerator damping</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000	<b>Max</b> 10.000	<b>Factory setting</b> 0.700

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<b>p3736[0...n]</b>	<b>APC filter 3.2 denominator natural frequency</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	<b>Factory setting</b> 2000.0 [Hz]

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<b>p3737[0...n]</b>	<b>APC filter 3.2 denominator damping</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.700
	<b>Min</b> 0.050	<b>Max</b> 10.000	

<b>p3738[0...n]</b>	<b>APC filter 3.2 numerator natural frequency</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 2000.0 [Hz]
	<b>Min</b> 0.5 [Hz]	<b>Max</b> 16000.0 [Hz]	

<b>p3739[0...n]</b>	<b>APC filter 3.2 numerator damping</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.700
	<b>Min</b> 0.000	<b>Max</b> 10.000	

<b>p3750[0...n]</b>	<b>CI: APC acceleration sensor input</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> p2007	<b>Access level:</b> 2 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> -	<b>Max</b> -	

<b>p3751[0...n]</b>	<b>APC acceleration sensor high pass time constant</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 100.00 [ms]
	<b>Min</b> 0.00 [ms]	<b>Max</b> 10000.00 [ms]	

<b>p3760[0...n]</b>	<b>APC load velocity controller 1 P gain</b>		
SERVO (APC, Lin), SERVO_840 (APC, Lin), SERVO_AC (APC, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.000
	<b>Min</b> -100.000	<b>Max</b> 100.000	



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<b>p3760[0...n]</b>	<b>APC load speed controller 1 P gain</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -100.000	<b>Max</b> 100.000	<b>Factory setting</b> 0.000

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<b>p3761[0...n]</b>	<b>APC load velocity controller 1 rate time</b>		
SERVO (APC, Lin), SERVO_840 (APC, Lin), SERVO_AC (APC, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -500.00 [ms]	<b>Max</b> 500.00 [ms]	<b>Factory setting</b> 0.00 [ms]

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<b>p3761[0...n]</b>	<b>APC load speed controller 1 rate time</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -500.00 [ms]	<b>Max</b> 500.00 [ms]	<b>Factory setting</b> 0.00 [ms]

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<b>p3765[0...n]</b>	<b>APC load velocity controller 2 P gain</b>		
SERVO (APC, Lin), SERVO_840 (APC, Lin), SERVO_AC (APC, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -100.000	<b>Max</b> 100.000	<b>Factory setting</b> 0.000

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<b>p3765[0...n]</b>	<b>APC load speed controller 2 P gain</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -100.000	<b>Max</b> 100.000	<b>Factory setting</b> 0.000

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<b>p3766[0...n]</b>	<b>APC load velocity controller 2 rate time</b>		
SERVO (APC, Lin), SERVO_840 (APC, Lin), SERVO_AC (APC, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -500.00 [ms]	<b>Max</b> 500.00 [ms]	<b>Factory setting</b> 0.00 [ms]

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<b>p3766[0...n]</b>	<b>APC load speed controller 2 rate time</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [ms]
	<b>Min</b> -500.00 [ms]	<b>Max</b> 500.00 [ms]	

<b>r3770</b>	<b>CO: APC load velocity</b>		
SERVO (APC, Lin), SERVO_840 (APC, Lin), SERVO_AC (APC, Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> - [m/min]
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	

<b>r3770</b>	<b>CO: APC load speed</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> - [rpm]
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	

<b>r3771[0...1]</b>	<b>CO: APC velocity actual value</b>		
SERVO (APC, Lin), SERVO_840 (APC, Lin), SERVO_AC (APC, Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> - [m/min]
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	

<b>r3771[0...1]</b>	<b>CO: APC speed actual value</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> - [rpm]
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	

<b>r3772[0...1]</b>	<b>APC filter branch 2 display values</b>		
SERVO (APC, Lin), SERVO_840 (APC, Lin), SERVO_AC (APC, Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> - [m/min]
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	

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<b>r3772[0...1]</b>	<b>APC filter branch 2 display values</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

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<b>r3773[0...1]</b>	<b>APC filter branch 3 display values</b>		
SERVO (APC, Lin), SERVO_840 (APC, Lin), SERVO_AC (APC, Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]

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<b>r3773[0...1]</b>	<b>APC filter branch 3 display values</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

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<b>r3777[0...1]</b>	<b>CO: APC filter branch 1 display values</b>		
SERVO (APC, Lin), SERVO_840 (APC, Lin), SERVO_AC (APC, Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]

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<b>r3777[0...1]</b>	<b>CO: APC filter branch 1 display values</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 3_1 <b>Scaling:</b> p2000	<b>Access level:</b> 3 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

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<b>p3778[0...n]</b>	<b>APC velocity limit</b>		
SERVO (APC, Lin), SERVO_840 (APC, Lin), SERVO_AC (APC, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 1000.00 [m/min]	<b>Factory setting</b> 1000.00 [m/min]

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<b>p3778[0...n]</b>	<b>APC speed limit</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 210000.00 [rpm]
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	
<b>p3779[0...n]</b>	<b>APC velocity limit monitoring time</b>		
SERVO (APC, Lin), SERVO_840 (APC, Lin), SERVO_AC (APC, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0 [ms]
	<b>Min</b> 0 [ms]	<b>Max</b> 1000000 [ms]	
<b>p3779[0...n]</b>	<b>APC speed limit monitoring time</b>		
SERVO (APC), SERVO_840 (APC), SERVO_AC (APC)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7012 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0 [ms]
	<b>Min</b> 0 [ms]	<b>Max</b> 1000000 [ms]	
<b>p3784[0...n]</b>	<b>BI: Sync-line-drive external increase voltage</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0 <b>Factory setting:</b> 0
	<b>Min</b> -	<b>Max</b> -	
<b>p3785[0...n]</b>	<b>BI: Sync-line-drive external decrease voltage</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> CDS, p0170 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0 <b>Factory setting:</b> 0
	<b>Min</b> -	<b>Max</b> -	
<b>p3800[0...n]</b>	<b>Sync-line-drive activation</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Functions <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7020 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 1	

<b>p3801[0...n]</b>	<b>Sync-line-drive, drive object number</b>		
VECTOR, VECTOR_AC	Can be changed: T Data type: Unsigned16 P-Group: Functions Not for motor type: -  Min 1	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -  Max 62	Access level: 2 Func. diagram: 7020 Unit selection: - Expert list: 1  Factory setting 1
<b>p3802[0...n]</b>	<b>BI: Sync-line-drive enable</b>		
VECTOR, VECTOR_AC	Can be changed: T Data type: Unsigned32 / Binary P-Group: Functions Not for motor type: -  Min -	Calculated: - Dynamic index: CDS, p0170 Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 7020 Unit selection: - Expert list: 1  Factory setting 0
<b>r3803.0</b>	<b>CO/BO: Sync-line-drive control word</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Functions Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r3804</b>	<b>CO: Sync-line-drive target frequency</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Functions Not for motor type: -  Min - [Hz]	Calculated: - Dynamic index: - Units group: - Scaling: p2000  Max - [Hz]	Access level: 2 Func. diagram: 3030, 7020 Unit selection: - Expert list: 1  Factory setting - [Hz]
<b>r3805</b>	<b>CO: Sync-line-drive frequency difference</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: Functions Not for motor type: -  Min - [Hz]	Calculated: - Dynamic index: - Units group: - Scaling: p2000  Max - [Hz]	Access level: 2 Func. diagram: 7020 Unit selection: - Expert list: 1  Factory setting - [Hz]
<b>p3806[0...n]</b>	<b>Sync-line-drive frequency difference threshold value</b>		
VECTOR, VECTOR_AC	Can be changed: U, T  Data type: FloatingPoint32 P-Group: Functions Not for motor type: -  Min 0.00 [Hz]	Calculated: CALC_MOD_LIM_REF Dynamic index: DDS, p0180 Units group: - Scaling: -  Max 1.00 [Hz]	Access level: 2 Func. diagram: 7020 Unit selection: - Expert list: 1  Factory setting 0.10 [Hz]

<b>r3808</b>	<b>CO: Sync-line-drive phase difference</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 7020
	<b>P-Group:</b> Functions	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2005	<b>Expert list:</b> 1
	<b>Min</b> - [°]	<b>Max</b> - [°]	<b>Factory setting</b> - [°]

<b>p3809[0...n]</b>	<b>Sync-line-drive phase setpoint</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7020
	<b>P-Group:</b> Functions	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -180.00 [°]	<b>Max</b> 179.90 [°]	<b>Factory setting</b> 0.00 [°]

<b>p3811[0...n]</b>	<b>Sync-line-drive frequency limiting</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7020
	<b>P-Group:</b> Functions	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [Hz]	<b>Max</b> 1.00 [Hz]	<b>Factory setting</b> 0.20 [Hz]

<b>r3812</b>	<b>CO: Sync-line-drive correction frequency</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 3080, 7020
	<b>P-Group:</b> Functions	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2000	<b>Expert list:</b> 1
	<b>Min</b> - [Hz]	<b>Max</b> - [Hz]	<b>Factory setting</b> - [Hz]

<b>p3813[0...n]</b>	<b>Sync-line-drive phase synchronism threshold value</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7020
	<b>P-Group:</b> Functions	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 1.00 [°]	<b>Max</b> 20.00 [°]	<b>Factory setting</b> 2.00 [°]

<b>r3814</b>	<b>CO: Sync-line-drive voltage difference</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 7020
	<b>P-Group:</b> Functions	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2001	<b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]

<b>p3815[0...n]</b>	<b>Sync-line-drive voltage difference threshold value</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7020
	<b>P-Group:</b> Functions	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 20.00 [%]	<b>Factory setting</b> 10.00 [%]
<b>p3819.0...7</b>	<b>CO/BO: Sync-line-drive status word</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 7020
	<b>P-Group:</b> Functions	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p3820[0...n]</b>	<b>Friction characteristic, value n0</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 15.00 [rpm]
<b>p3820[0...n]</b>	<b>Friction characteristic, value v0</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 4_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 21000.00 [m/min]	<b>Factory setting</b> 1.50 [m/min]
<b>p3821[0...n]</b>	<b>Friction characteristic, value n1</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 30.00 [rpm]

<b>p3821[0...n]</b>	<b>Friction characteristic, value v1</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 4_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 21000.00 [m/min]	<b>Factory setting</b> 3.00 [m/min]

<b>p3822[0...n]</b>	<b>Friction characteristic, value n2</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 60.00 [rpm]

<b>p3822[0...n]</b>	<b>Friction characteristic, value v2</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 4_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 21000.00 [m/min]	<b>Factory setting</b> 6.00 [m/min]

<b>p3823[0...n]</b>	<b>Friction characteristic, value n3</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 120.00 [rpm]

<b>p3823[0...n]</b>	<b>Friction characteristic, value v3</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 4_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 21000.00 [m/min]	<b>Factory setting</b> 12.00 [m/min]



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<b>p3824[0...n]</b>	<b>Friction characteristic, value n4</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 150.00 [rpm]

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<b>p3824[0...n]</b>	<b>Friction characteristic, value v4</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 4_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 21000.00 [m/min]	<b>Factory setting</b> 15.00 [m/min]

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<b>p3825[0...n]</b>	<b>Friction characteristic, value n5</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 300.00 [rpm]

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<b>p3825[0...n]</b>	<b>Friction characteristic, value v5</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 4_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 21000.00 [m/min]	<b>Factory setting</b> 30.00 [m/min]

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<b>p3826[0...n]</b>	<b>Friction characteristic, value n6</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 600.00 [rpm]

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<b>p3826[0...n]</b>	<b>Friction characteristic, value v6</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 4_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 21000.00 [m/min]	<b>Factory setting</b> 60.00 [m/min]

<b>p3827[0...n]</b>	<b>Friction characteristic, value n7</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 1200.00 [rpm]

<b>p3827[0...n]</b>	<b>Friction characteristic, value v7</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 4_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 21000.00 [m/min]	<b>Factory setting</b> 120.00 [m/min]

<b>p3828[0...n]</b>	<b>Friction characteristic, value n8</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 3_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 210000.00 [rpm]	<b>Factory setting</b> 1500.00 [rpm]

<b>p3828[0...n]</b>	<b>Friction characteristic, value v8</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T	<b>Calculated:</b> CALC_MOD_LIM_REF	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 4_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [m/min]	<b>Max</b> 21000.00 [m/min]	<b>Factory setting</b> 150.00 [m/min]

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<b>p3829[0...n]</b>	<b>Friction characteristic, value n9</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T  <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL  <b>Min</b> 0.00 [rpm]	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 3_1 <b>Scaling:</b> -  <b>Max</b> 210000.00 [rpm]	<b>Access level:</b> 2  <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 3000.00 [rpm]

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<b>p3829[0...n]</b>	<b>Friction characteristic, value v9</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T  <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL  <b>Min</b> 0.00 [m/min]	<b>Calculated:</b> CALC_MOD_LIM_REF <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 4_1 <b>Scaling:</b> -  <b>Max</b> 21000.00 [m/min]	<b>Access level:</b> 2  <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 300.00 [m/min]

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<b>p3830[0...n]</b>	<b>Friction characteristic, value M0</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T  <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL  <b>Min</b> -1000000.00 [Nm]	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> -  <b>Max</b> 1000000.00 [Nm]	<b>Access level:</b> 2  <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [Nm]

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<b>p3830[0...n]</b>	<b>Friction characteristic, value F0</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T  <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL  <b>Min</b> -1000000.00 [N]	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 8_1 <b>Scaling:</b> -  <b>Max</b> 1000000.00 [N]	<b>Access level:</b> 2  <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [N]

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<b>p3831[0...n]</b>	<b>Friction characteristic, value M1</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T  <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL  <b>Min</b> -1000000.00 [Nm]	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> -  <b>Max</b> 1000000.00 [Nm]	<b>Access level:</b> 2  <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [Nm]

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<b>p3831[0...n]</b>	<b>Friction characteristic, value F1</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T  <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 8_1 <b>Scaling:</b> -	<b>Access level:</b> 2  <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1

	<b>Min</b> -1000000.00 [N]	<b>Max</b> 1000000.00 [N]	<b>Factory setting</b> 0.00 [N]
<b>p3832[0...n]</b>	<b>Friction characteristic, value M2</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000000.00 [Nm]	<b>Max</b> 1000000.00 [Nm]	<b>Factory setting</b> 0.00 [Nm]
<b>p3832[0...n]</b>	<b>Friction characteristic, value F2</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 8_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000000.00 [N]	<b>Max</b> 1000000.00 [N]	<b>Factory setting</b> 0.00 [N]
<b>p3833[0...n]</b>	<b>Friction characteristic, value M3</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000000.00 [Nm]	<b>Max</b> 1000000.00 [Nm]	<b>Factory setting</b> 0.00 [Nm]
<b>p3833[0...n]</b>	<b>Friction characteristic, value F3</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 8_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000000.00 [N]	<b>Max</b> 1000000.00 [N]	<b>Factory setting</b> 0.00 [N]
<b>p3834[0...n]</b>	<b>Friction characteristic, value M4</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000000.00 [Nm]	<b>Max</b> 1000000.00 [Nm]	<b>Factory setting</b> 0.00 [Nm]

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<b>p3834[0...n]</b>	<b>Friction characteristic, value F4</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 8_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000000.00 [N]	<b>Max</b> 1000000.00 [N]	<b>Factory setting</b> 0.00 [N]

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<b>p3835[0...n]</b>	<b>Friction characteristic, value M5</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000000.00 [Nm]	<b>Max</b> 1000000.00 [Nm]	<b>Factory setting</b> 0.00 [Nm]

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<b>p3835[0...n]</b>	<b>Friction characteristic, value F5</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 8_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000000.00 [N]	<b>Max</b> 1000000.00 [N]	<b>Factory setting</b> 0.00 [N]

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<b>p3836[0...n]</b>	<b>Friction characteristic, value M6</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000000.00 [Nm]	<b>Max</b> 1000000.00 [Nm]	<b>Factory setting</b> 0.00 [Nm]

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<b>p3836[0...n]</b>	<b>Friction characteristic, value F6</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 8_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000000.00 [N]	<b>Max</b> 1000000.00 [N]	<b>Factory setting</b> 0.00 [N]

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<b>p3837[0...n]</b>	<b>Friction characteristic, value M7</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000000.00 [Nm]	<b>Max</b> 1000000.00 [Nm]	<b>Factory setting</b> 0.00 [Nm]

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<b>p3837[0...n]</b>	<b>Friction characteristic, value F7</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 8_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [N]
	<b>Min</b> -1000000.00 [N]	<b>Max</b> 1000000.00 [N]	

<b>p3838[0...n]</b>	<b>Friction characteristic, value M8</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [Nm]
	<b>Min</b> -1000000.00 [Nm]	<b>Max</b> 1000000.00 [Nm]	

<b>p3838[0...n]</b>	<b>Friction characteristic, value F8</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 8_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [N]
	<b>Min</b> -1000000.00 [N]	<b>Max</b> 1000000.00 [N]	

<b>p3839[0...n]</b>	<b>Friction characteristic, value M9</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 7_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [Nm]
	<b>Min</b> -1000000.00 [Nm]	<b>Max</b> 1000000.00 [Nm]	

<b>p3839[0...n]</b>	<b>Friction characteristic, value F9</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> 8_1 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> 0.00 [N]
	<b>Min</b> -1000000.00 [N]	<b>Max</b> 1000000.00 [N]	

<b>r3840.0...8</b>	<b>CO/BO: Friction characteristic, status word</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> -
	<b>Min</b> -	<b>Max</b> -	

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<b>r3840.0...9</b>	<b>CO/BO: Friction characteristic, status word</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r3841</b>	<b>CO: Friction characteristic output</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 7_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	- [Nm]	- [Nm]	- [Nm]

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<b>r3841</b>	<b>CO: Friction characteristic output</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> 8_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> REL	<b>Scaling:</b> p2003	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	- [N]	- [N]	- [N]

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<b>p3842</b>	<b>Friction characteristic activation</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 7010
	<b>P-Group:</b> Functions	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> REL	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	1	0

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<b>p3843[0...n]</b>	<b>Friction characteristic smoothing time frictional torque diff.</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0.00 [ms]	10000.00 [ms]	0.00 [ms]

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<b>p3844[0...n]</b>	<b>Friction characteristic number changeover point upper</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned8	<b>Dynamic index:</b> DDS, p0180	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> PEM, REL, FEM	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	4	0

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<b>p3845</b>	<b>Friction characteristic record activation</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 0

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<b>p3846[0...n]</b>	<b>Friction characteristic record ramp-up/ramp-down time</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 999999.000 [s]	<b>Factory setting</b> 10.000 [s]

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<b>p3847[0...n]</b>	<b>Friction characteristic record warm-up time</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Functions <b>Not for motor type:</b> REL	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 7010 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 3600.000 [s]	<b>Factory setting</b> 0.000 [s]

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<b>p3860</b>	<b>Number of Braking Modules connected in parallel</b>		
A_INF (Brk Mod ext), A_INF_840 (Brk Mod ext), B_INF (Brk Mod ext), B_INF_840 (Brk Mod ext), S_INF (Brk Mod ext), S_INF_840 (Brk Mod ext)	<b>Can be changed:</b> C2(2) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9951 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 8	<b>Factory setting</b> 1

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<b>r3861.0...7</b>	<b>BO: Braking Module inhibit/acknowledgement</b>		
A_INF (Brk Mod ext), A_INF_840 (Brk Mod ext), B_INF (Brk Mod ext), B_INF_840 (Brk Mod ext), S_INF (Brk Mod ext), S_INF_840 (Brk Mod ext)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9951 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -



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<b>p3862</b>	<b>Braking Module DC link fast discharge delay time</b>		
A_INF (Brk Mod ext), A_INF_840 (Brk Mod ext), B_INF (Brk Mod ext), B_INF_840 (Brk Mod ext), S_INF (Brk Mod ext), S_INF_840 (Brk Mod ext)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9951 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 500 [ms]	<b>Max</b> 4294967295 [ms]	<b>Factory setting</b> 1000 [ms]

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<b>p3863</b>	<b>BI: Activating Braking Module DC link fast discharge</b>		
A_INF (Brk Mod ext), A_INF_840 (Brk Mod ext), B_INF (Brk Mod ext), B_INF_840 (Brk Mod ext), S_INF (Brk Mod ext), S_INF_840 (Brk Mod ext)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9951 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>r3864.0...7</b>	<b>BO: Braking Module DC link fast discharge</b>		
A_INF (Brk Mod ext), A_INF_840 (Brk Mod ext), B_INF (Brk Mod ext), B_INF_840 (Brk Mod ext), S_INF (Brk Mod ext), S_INF_840 (Brk Mod ext)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9951 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>p3865[0...7]</b>	<b>BI: Braking Module pre-warning I*t shutdown</b>		
A_INF (Brk Mod ext), A_INF_840 (Brk Mod ext), B_INF (Brk Mod ext), B_INF_840 (Brk Mod ext), S_INF (Brk Mod ext), S_INF_840 (Brk Mod ext)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9951 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p3866[0...7]</b>	<b>BI: Braking Module fault</b>		
A_INF (Brk Mod ext), A_INF_840 (Brk Mod ext), B_INF (Brk Mod ext), B_INF_840 (Brk Mod ext), S_INF (Brk Mod ext), S_INF_840 (Brk Mod ext)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9951 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p3870</b>	<b>Long stator configuration</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: U, T Data type: Unsigned16 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0000 bin

<b>p3871</b>	<b>BI: Set long stator signal source commutation angle (p3872)</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: T Data type: Unsigned32 / Binary P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0

<b>p3872</b>	<b>CI: Long stator signal source commutation angle</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: T Data type: Unsigned32 / FloatingPoint32 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: p2005  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 3878[0]

<b>p3873</b>	<b>BI: Long stator sig. source changeover to cl.-loop ctrl w/ enc.</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: T Data type: Unsigned32 / Binary P-Group: Functions Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0

<b>p3874</b>	<b>CI: Long stator signal source commutation angle oper. with encoder</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: T Data type: Unsigned32 / FloatingPoint32 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: p2005  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 3879[0]

<b>r3875.0...1</b>	<b>CO/BO: Long stator status word</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

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<b>r3875.0...1</b>	<b>CO/BO: Long stator status word</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>p3876</b>	<b>BI: Unpark long stator signal source 1 encoder</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p3878</b>	<b>CO: Long stator commutation angle 1</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2005	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-180 [°]	180 [°]	0 [°]

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<b>p3879</b>	<b>CO: Long stator commutation angle 2</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2005	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-180 [°]	180 [°]	0 [°]

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<b>p3900</b>	<b>Completion of quick commissioning</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> C2(1)	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	3	0

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<b>p3900</b>	<b>Completion of quick commissioning</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2(1)	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	3	0

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<b>p3900</b>	<b>Completion of quick commissioning</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(1) <b>Data type:</b> Integer16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 0
<b>p3901[0...n]</b>	<b>Power unit EEPROM Vdc offset calibration</b>		
B_INF, B_INF_840, VECTOR, VECTOR_AC	<b>Can be changed:</b> C1, C2(1), T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -40.0 [V]	<b>Max</b> 40.0 [V]	<b>Factory setting</b> 0.0 [V]
<b>r3925[0...n]</b>	<b>Identification final display</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r3925[0...n]</b>	<b>Identification final display</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r3927[0...n]</b>	<b>Motor data identification induction motor data determined</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r3927[0...n]</b>	<b>Motor data identification control word</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r3928[0...n]</b>	<b>Motor data identification synchronous motor data determined</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r3928[0...n]</b>	<b>Rotating measurement configuration</b>		
VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Motor identification <b>Not for motor type:</b> REL	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p3950</b>	<b>Service parameter</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1, U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p3961</b>	<b>Fan operating hours counter</b>		
CU_S_AC_DP, CU_S_AC_PN	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [h]	<b>Max</b> 340.28235E36 [h]	<b>Factory setting</b> 0.000 [h]
<b>r3974</b>	<b>Drive unit status word</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r3977</b>	<b>BICO counter, topology</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1

	Min	Max	Factory setting
<b>r3978</b>			
<b>BICO CounterDevice</b>			
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	Min -	Max -	Factory setting -
<b>r3979</b>			
<b>BICO counter, drive object</b>			
A_INF, A_INF_840, B_INF, B_INF_840, CU_LINK, ENC, ENC_840, HUB, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	Min -	Max -	Factory setting -
<b>p3981</b>			
<b>Faults, acknowledge drive object</b>			
All objects	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8060 <b>Unit selection:</b> - <b>Expert list:</b> 1
	Min 0	Max 1	Factory setting 0
<b>p3985</b>			
<b>Master control mode selection</b>			
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Setpoints <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	Min 0	Max 1	Factory setting 0

<b>r3986</b>	<b>Parameter count</b>		
All objects	Can be changed: - Data type: Unsigned16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r3988[0...1]</b>	<b>Boot state</b>		
CU_I_840	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 10800	Factory setting -
<b>r3988[0...1]</b>	<b>Boot state</b>		
CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 10800	Factory setting -
<b>r3996[0...1]</b>	<b>Parameter write inhibit status</b>		
All objects	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r3998</b>	<b>First infeed commissioning</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	Can be changed: - Data type: Unsigned16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 65535	Factory setting -
<b>r3998[0...n]</b>	<b>First drive commissioning</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: DDS, p0180 Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 65535	Factory setting -

<b>r4021</b>	<b>Digital inputs terminal actual value</b>		
SERVO (Dig IO), SERVO_840 (Dig IO)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2201
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r4021</b>	<b>TB30 digital inputs terminal actual value</b>		
TB30	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 9100
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r4021</b>	<b>TM15DI/DO digital inputs, terminal actual value</b>		
TM15DI_DO	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 9400, 9401, 9402
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r4021</b>	<b>TM31 digital inputs terminal actual value</b>		
TM31	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1840, 9550, 9552, 9560, 9562
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r4021</b>	<b>TM41 digital inputs terminal actual value</b>		
TM41	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r4022.0...1</b>	<b>CO/BO: Digital inputs status</b>		
SERVO (Dig IO), SERVO_840 (Dig IO)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2201
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1



	Min	Max	Factory setting
	-	-	-
<b>r4022.0...3</b>	<b>CO/BO: TB30 digital inputs, status</b>		
TB30	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: 1790, 9100 Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	-
<b>r4022.0...23</b>	<b>CO/BO: TM15DI/DO digital inputs, status</b>		
TM15DI_DO	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: 1781, 9400, 9401, 9402 Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	-
<b>r4022.0...11</b>	<b>CO/BO: TM31 digital inputs, status</b>		
TM31	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: 1840, 9550, 9552, 9560, 9562 Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	-
<b>r4022.0...11</b>	<b>CO/BO: TM41 digital inputs, status</b>		
TM41	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: 1842, 9660, 9661, 9662 Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	-
<b>r4023.0...1</b>	<b>BO: Digital inputs status inverted</b>		
SERVO (Dig IO), SERVO_840 (Dig IO)	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: 2201 Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4023.0...3</b>	<b>BO: TB30 digital inputs, status inverted</b>		
TB30	Can be changed: -	Calculated: -	Access level: 1
	Data type: Unsigned32	Dynamic index: -	Func. diagram: 1790, 9100
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4023.0...23</b>	<b>CO/BO: TM15DI/DO digital inputs, status inverted</b>		
TM15DI_DO	Can be changed: -	Calculated: -	Access level: 1
	Data type: Unsigned32	Dynamic index: -	Func. diagram: 1781, 9400, 9401, 9402
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4023.0...11</b>	<b>CO/BO: TM31 digital inputs, status inverted</b>		
TM31	Can be changed: -	Calculated: -	Access level: 1
	Data type: Unsigned32	Dynamic index: -	Func. diagram: 1840, 9550, 9552, 9560, 9562
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4023.0...11</b>	<b>BO: TM41 digital inputs, status inverted</b>		
TM41	Can be changed: -	Calculated: -	Access level: 1
	Data type: Unsigned32	Dynamic index: -	Func. diagram: 1842, 9660, 9661, 9662
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4024</b>	<b>CO: TM15DI/DO digital inputs 16 ... 23 status</b>		
TM15DI_DO	Can be changed: -	Calculated: -	Access level: 1
	Data type: Unsigned16	Dynamic index: -	Func. diagram: 9402
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4025</b>	<b>CO: TM15DI/DO digital inputs 16 ... 23 status inverted</b>		
TM15DI_DO	Can be changed: -	Calculated: -	Access level: 1
	Data type: Unsigned16	Dynamic index: -	Func. diagram: 9402
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1

	Min	Max	Factory setting
	-	-	-
<b>p4028</b>	<b>Set input or output</b>		
SERVO (Dig IO), SERVO_840 (Dig IO)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 2201 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin
<b>p4028</b>	<b>TM15 set input or output</b>		
TM15	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1780 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 0000 0000 0000 0000 bin
<b>p4028</b>	<b>TM15DI/DO set input or output</b>		
TM15DI_DO	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 1781, 9400, 9401, 9402 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 0000 0000 0000 0000 bin
<b>p4028</b>	<b>TM17 set input or output</b>		
TM17	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 1782 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 bin

<b>p4028</b>	<b>TM31 set input or output</b>		
TM31	Can be changed: T Data type: Unsigned32  P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: -  Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 1840, 9560, 9562 Unit selection: - Expert list: 1 Factory setting 0000 0000 0000 0000 bin

<b>p4028</b>	<b>TM41 set input or output</b>		
TM41	Can be changed: T Data type: Unsigned32  P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: -  Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 1842, 9661, 9662 Unit selection: - Expert list: 1 Factory setting 0000 0000 0000 0000 bin

<b>p4030</b>	<b>BI: TB30 signal source for terminal DO 0</b>		
TB30	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 1790, 9102 Unit selection: - Expert list: 1 Factory setting 0

<b>p4030</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 0</b>		
TM15DI_DO	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 1781, 9400 Unit selection: - Expert list: 1 Factory setting 0

<b>p4030</b>	<b>BI: TM31 signal source for terminal DO 0</b>		
TM31	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 1840, 9556 Unit selection: - Expert list: 1 Factory setting 0

<b>p4031</b>	<b>BI: TB30 signal source for terminal DO 1</b>		
TB30	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: 9102 Unit selection: - Expert list: 1

	Min	Max	Factory setting
	-	-	0
<b>p4031</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 1</b>		
TM15DI_DO	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: 9400 Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	0
<b>p4031</b>	<b>BI: TM31 signal source for terminal DO 1</b>		
TM31	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: 1840, 9556 Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	0
<b>p4032</b>	<b>BI: TB30 signal source for terminal DO 2</b>		
TB30	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: 9102 Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	0
<b>p4032</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 2</b>		
TM15DI_DO	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: 9400 Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	0
<b>p4033</b>	<b>BI: TB30 signal source for terminal DO 3</b>		
TB30	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: 1790, 9102 Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	0

<b>p4033</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 3</b>		
TM15DI_DO	Can be changed: U, T	Calculated: -	Access level: 1
	Data type: Unsigned32 / Binary	Dynamic index: -	Func. diagram: 9400
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	0

<b>p4034</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 4</b>		
TM15DI_DO	Can be changed: U, T	Calculated: -	Access level: 1
	Data type: Unsigned32 / Binary	Dynamic index: -	Func. diagram: 9400
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	0

<b>p4035</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 5</b>		
TM15DI_DO	Can be changed: U, T	Calculated: -	Access level: 1
	Data type: Unsigned32 / Binary	Dynamic index: -	Func. diagram: 9400
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	0

<b>p4036</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 6</b>		
TM15DI_DO	Can be changed: U, T	Calculated: -	Access level: 1
	Data type: Unsigned32 / Binary	Dynamic index: -	Func. diagram: 9400
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	0

<b>p4037</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 7</b>		
TM15DI_DO	Can be changed: U, T	Calculated: -	Access level: 1
	Data type: Unsigned32 / Binary	Dynamic index: -	Func. diagram: 9400
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	0

<b>p4038</b>	<b>BI: Signal source for terminal DI/DO 0 distributed</b>		
SERVO (Dig IO), SERVO_840 (Dig IO)	Can be changed: U, T	Calculated: -	Access level: 1
	Data type: Unsigned32 / Binary	Dynamic index: -	Func. diagram: 2201
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	0

<b>p4038</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 8</b>		
TM15DI_DO	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9401 Unit selection: - Expert list: 1  Factory setting 0
<b>p4038</b>	<b>BI: TM31 signal source for terminal DI/DO 8</b>		
TM31	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 1840, 9560 Unit selection: - Expert list: 1  Factory setting 0
<b>p4038</b>	<b>BI: TM41 signal source for terminal DI/DO 0</b>		
TM41	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9661 Unit selection: - Expert list: 1  Factory setting 0
<b>p4039</b>	<b>BI: Signal source for terminal DI/DO 1 distributed</b>		
SERVO (Dig IO), SERVO_840 (Dig IO)	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 2201 Unit selection: - Expert list: 1  Factory setting 0
<b>p4039</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 9</b>		
TM15DI_DO	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9401 Unit selection: - Expert list: 1  Factory setting 0
<b>p4039</b>	<b>BI: TM31 signal source for terminal DI/DO 9</b>		
TM31	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9560 Unit selection: - Expert list: 1  Factory setting 0

<b>p4039</b>	<b>BI: TM41 signal source for terminal DI/DO 1</b>		
TM41	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9661 Unit selection: - Expert list: 1  Factory setting 0

<b>p4040</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 10</b>		
TM15DI_DO	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9401 Unit selection: - Expert list: 1  Factory setting 0

<b>p4040</b>	<b>BI: TM31 signal source for terminal DI/DO 10</b>		
TM31	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9562 Unit selection: - Expert list: 1  Factory setting 0

<b>p4040</b>	<b>BI: TM41 signal source for terminal DI/DO 2</b>		
TM41	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9662 Unit selection: - Expert list: 1  Factory setting 0

<b>p4041</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 11</b>		
TM15DI_DO	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9401 Unit selection: - Expert list: 1  Factory setting 0

<b>p4041</b>	<b>BI: TM31 signal source for terminal DI/DO 11</b>		
TM31	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 1840, 9562 Unit selection: - Expert list: 1  Factory setting 0



<b>p4041</b>	<b>BI: TM41 signal source for terminal DI/DO 3</b>		
TM41	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9662 Unit selection: - Expert list: 1  Factory setting 0
<b>p4042</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 12</b>		
TM15DI_DO	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9401 Unit selection: - Expert list: 1  Factory setting 0
<b>p4043</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 13</b>		
TM15DI_DO	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9401 Unit selection: - Expert list: 1  Factory setting 0
<b>p4044</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 14</b>		
TM15DI_DO	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9401 Unit selection: - Expert list: 1  Factory setting 0
<b>p4045</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 15</b>		
TM15DI_DO	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9401 Unit selection: - Expert list: 1  Factory setting 0
<b>p4046</b>	<b>TM31 digital outputs, limit current</b>		
TM31	Can be changed: T Data type: Integer16 P-Group: Commands Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 1	Access level: 2 Func. diagram: 9560 Unit selection: - Expert list: 1  Factory setting 0

<b>r4047</b>	<b>Digital outputs status</b>		
SERVO (Dig IO), SERVO_840 (Dig IO)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2201
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r4047</b>	<b>TB30 digital outputs status</b>		
TB30	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 9102
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r4047</b>	<b>TM15DI/DO digital outputs, status</b>		
TM15DI_DO	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 9400, 9401, 9402
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r4047</b>	<b>TM31 digital outputs status</b>		
TM31	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 9556, 9560, 9562
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r4047</b>	<b>TM41 digital outputs status</b>		
TM41	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>p4048</b>	<b>Invert digital outputs</b>		
SERVO (Dig IO), SERVO_840 (Dig IO)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2201
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1

	Min	Max	Factory setting
	-	-	0000 bin
<b>p4048</b>	<b>TB30 invert digital outputs</b>		
TB30	Can be changed: U, T Data type: Unsigned32 P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: 9102 Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	0000 bin
<b>p4048</b>	<b>TM15 invert digital inputs/outputs</b>		
TM15	Can be changed: U, T Data type: Unsigned32 P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	0000 0000 0000 0000 0000 0000 0000 0000 bin
<b>p4048</b>	<b>TM15DI/DO invert digital outputs</b>		
TM15DI_DO	Can be changed: U, T Data type: Unsigned32  P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: -  Units group: - Scaling: -	Access level: 1 Func. diagram: 9400, 9401, 9402 Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	0000 0000 0000 0000 0000 0000 0000 0000 bin
<b>p4048</b>	<b>TM17 invert digital inputs/outputs</b>		
TM17	Can be changed: U, T Data type: Unsigned32 P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	0000 0000 0000 0000 bin
<b>p4048</b>	<b>TM31 invert digital outputs</b>		
TM31	Can be changed: U, T Data type: Unsigned32  P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: -  Units group: - Scaling: -	Access level: 1 Func. diagram: 9556, 9560, 9562 Unit selection: - Expert list: 1
	Min	Max	Factory setting
	-	-	0000 0000 0000 0000 bin

<b>p4048</b>	<b>TM41 invert digital outputs</b>		
TM41	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0000 0000 0000 0000 bin

<b>p4049</b>	<b>TM15 digital inputs/outputs, set the mode</b>		
TM15	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0000 0000 0000 0000 0000 0000 0000 0000 bin

<b>p4049</b>	<b>TM17 digital inputs/outputs, set the mode</b>		
TM17	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0000 0000 0000 0000 bin

<b>r4052[0...1]</b>	<b>CO: TB30 analog inputs, actual input voltage</b>		
TB30	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -  <b>Min</b> - [V]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [V]	<b>Access level:</b> 1 <b>Func. diagram:</b> 9104 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [V]

<b>r4052[0...1]</b>	<b>CO: TM31 analog inputs, current input voltage/current</b>		
TM31	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> 9566, 9568 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>r4052[0]</b>	<b>CO: TM41 analog inputs, actual input voltage</b>		
TM41	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -  <b>Min</b> - [V]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [V]	<b>Access level:</b> 1 <b>Func. diagram:</b> 9663 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [V]

<b>p4053[0...1]</b>	<b>TB30 analog inputs, smoothing time constant</b>		
TB30	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min 0.0 [ms]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 1000.0 [ms]	Access level: 1 Func. diagram: 9104 Unit selection: - Expert list: 1  Factory setting 0.0 [ms]
<b>p4053[0...1]</b>	<b>TM31 analog inputs, smoothing time constant</b>		
TM31	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min 0.0 [ms]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 1000.0 [ms]	Access level: 1 Func. diagram: 9566, 9568 Unit selection: - Expert list: 1  Factory setting 0.0 [ms]
<b>p4053[0]</b>	<b>TM41 analog inputs, smoothing time constant</b>		
TM41	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min 0.0 [ms]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 1000.0 [ms]	Access level: 1 Func. diagram: 9663 Unit selection: - Expert list: 1  Factory setting 0.0 [ms]
<b>r4055[0...1]</b>	<b>CO: TB30 analog inputs, actual value in percent</b>		
TB30	Can be changed: - Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min - [%]	Calculated: - Dynamic index: - Units group: - Scaling: PERCENT  Max - [%]	Access level: 1 Func. diagram: 1790, 9104 Unit selection: - Expert list: 1  Factory setting - [%]
<b>r4055[0...1]</b>	<b>CO: TM31 analog inputs, actual value in percent</b>		
TM31	Can be changed: - Data type: FloatingPoint32  P-Group: Terminals Not for motor type: -  Min - [%]	Calculated: - Dynamic index: -  Units group: - Scaling: PERCENT  Max - [%]	Access level: 1 Func. diagram: 1840, 9566, 9568 Unit selection: - Expert list: 1  Factory setting - [%]
<b>r4055[0]</b>	<b>CO: TM41 analog inputs, actual value in percent</b>		
TM41	Can be changed: - Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min - [%]	Calculated: - Dynamic index: - Units group: - Scaling: PERCENT  Max - [%]	Access level: 1 Func. diagram: 9663 Unit selection: - Expert list: 1  Factory setting - [%]

<b>r4056[0...1]</b>	<b>TB30 analog inputs, type</b>		
TB30	Can be changed: - Data type: Integer16 P-Group: Terminals Not for motor type: -  Min 4	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 4	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>p4056[0...1]</b>	<b>TM31 analog inputs, type</b>		
TM31	Can be changed: U, T Data type: Integer16 P-Group: Terminals Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 5	Access level: 1 Func. diagram: 9566, 9568 Unit selection: - Expert list: 1  Factory setting 4
<b>r4056</b>	<b>TM41 analog input, type</b>		
TM41	Can be changed: - Data type: Integer16 P-Group: Terminals Not for motor type: -  Min 4	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 4	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>p4057[0...1]</b>	<b>TB30 analog inputs, characteristic value x1</b>		
TB30	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -11.000 [V]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 11.000 [V]	Access level: 2 Func. diagram: 9104 Unit selection: - Expert list: 1  Factory setting 0.000 [V]
<b>p4057[0...1]</b>	<b>TM31 analog inputs, characteristic value x1</b>		
TM31	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -20.000	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 20.000	Access level: 2 Func. diagram: 9566, 9568 Unit selection: - Expert list: 1  Factory setting 0.000
<b>p4057[0]</b>	<b>TM41 analog input, characteristic value x1</b>		
TM41	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -20.000 [V]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 20.000 [V]	Access level: 2 Func. diagram: 9663 Unit selection: - Expert list: 1  Factory setting 0.000 [V]

<b>p4058[0...1]</b>	<b>TB30 analog inputs, characteristic value y1</b>		
TB30	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -1000.00 [%]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 1000.00 [%]	Access level: 2 Func. diagram: 9104 Unit selection: - Expert list: 1  Factory setting 0.00 [%]
<b>p4058[0...1]</b>	<b>TM31 analog inputs, characteristic value y1</b>		
TM31	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -1000.00 [%]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 1000.00 [%]	Access level: 2 Func. diagram: 9566, 9568 Unit selection: - Expert list: 1  Factory setting 0.00 [%]
<b>p4058[0]</b>	<b>TM41 analog input, characteristic value y1</b>		
TM41	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -1000.00 [%]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 1000.00 [%]	Access level: 2 Func. diagram: 9663 Unit selection: - Expert list: 1  Factory setting 0.00 [%]
<b>p4059[0...1]</b>	<b>TB30 analog inputs, characteristic value x2</b>		
TB30	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -11.000 [V]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 11.000 [V]	Access level: 2 Func. diagram: 9104 Unit selection: - Expert list: 1  Factory setting 10.000 [V]
<b>p4059[0...1]</b>	<b>TM31 analog inputs, characteristic value x2</b>		
TM31	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -20.000	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 20.000	Access level: 2 Func. diagram: 9566, 9568 Unit selection: - Expert list: 1  Factory setting 10.000
<b>p4059[0]</b>	<b>TM41 analog input, characteristic value x2</b>		
TM41	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -20.000 [V]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 20.000 [V]	Access level: 2 Func. diagram: 9663 Unit selection: - Expert list: 1  Factory setting 10.000 [V]

<b>p4060[0...1]</b>	<b>TB30 analog inputs, characteristic value y2</b>		
TB30	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -1000.00 [%]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 1000.00 [%]	Access level: 2 Func. diagram: 9104 Unit selection: - Expert list: 1  Factory setting 100.00 [%]
<b>p4060[0...1]</b>	<b>TM31 analog inputs, characteristic value y2</b>		
TM31	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -1000.00 [%]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 1000.00 [%]	Access level: 2 Func. diagram: 9566, 9568 Unit selection: - Expert list: 1  Factory setting 100.00 [%]
<b>p4060[0]</b>	<b>TM41 analog input, characteristic value y2</b>		
TM41	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -1000.00 [%]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 1000.00 [%]	Access level: 2 Func. diagram: 9663 Unit selection: - Expert list: 1  Factory setting 100.00 [%]
<b>p4061[0...1]</b>	<b>TM31 analog inputs, wire breakage monitoring response threshold</b>		
TM31	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min 0.00 [mA]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 20.00 [mA]	Access level: 2 Func. diagram: 9566, 9568 Unit selection: - Expert list: 1  Factory setting 2.00 [mA]
<b>p4062[0...1]</b>	<b>TM31 analog inputs, wire breakage monitoring delay time</b>		
TM31	Can be changed: U, T Data type: Unsigned16 P-Group: Terminals Not for motor type: -  Min 0 [ms]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 1000 [ms]	Access level: 2 Func. diagram: 9566, 9568 Unit selection: - Expert list: 1  Factory setting 100 [ms]
<b>p4063[0...1]</b>	<b>TB30 analog inputs offset</b>		
TB30	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -20.000 [V]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 20.000 [V]	Access level: 2 Func. diagram: 9104 Unit selection: - Expert list: 1  Factory setting 0.000 [V]



<b>p4063[0...1]</b>	<b>TM31 analog inputs offset</b>		
TM31	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -20.000	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 20.000	Access level: 2 Func. diagram: 9566, 9568 Unit selection: - Expert list: 1  Factory setting 0.000
<b>p4063[0]</b>	<b>TM41 analog input, offset</b>		
TM41	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -20.000 [V]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 20.000 [V]	Access level: 2 Func. diagram: 9663 Unit selection: - Expert list: 1  Factory setting 0.000 [V]
<b>p4066[0...1]</b>	<b>TB30 analog inputs, activate absolute value generation</b>		
TB30	Can be changed: U, T Data type: Integer16 P-Group: Terminals Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 1	Access level: 3 Func. diagram: 9104 Unit selection: - Expert list: 1  Factory setting 0
<b>p4066[0...1]</b>	<b>TM31 analog inputs, activate absolute value generation</b>		
TM31	Can be changed: U, T Data type: Integer16 P-Group: Terminals Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 1	Access level: 3 Func. diagram: 9566, 9568 Unit selection: - Expert list: 1  Factory setting 0
<b>p4066[0]</b>	<b>TM41 analog input, activate absolute value generation</b>		
TM41	Can be changed: U, T Data type: Integer16 P-Group: Terminals Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 1	Access level: 3 Func. diagram: 9663 Unit selection: - Expert list: 1  Factory setting 0
<b>p4067[0...1]</b>	<b>BI: TB30 analog inputs invert signal source</b>		
TB30	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Terminals Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: 9104 Unit selection: - Expert list: 1  Factory setting 0

<b>p4067[0...1]</b>	<b>BI: TM31 analog inputs invert signal source</b>		
TM31	Can be changed: U, T	Calculated: -	Access level: 3
	Data type: Unsigned32 / Binary	Dynamic index: -	Func. diagram: 9566, 9568
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	0

<b>p4067[0]</b>	<b>BI: TM41 analog input invert signal source</b>		
TM41	Can be changed: U, T	Calculated: -	Access level: 3
	Data type: Unsigned32 / Binary	Dynamic index: -	Func. diagram: 9663
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	0

<b>p4068[0...1]</b>	<b>TB30 analog inputs, noise suppression window</b>		
TB30	Can be changed: U, T	Calculated: -	Access level: 3
	Data type: FloatingPoint32	Dynamic index: -	Func. diagram: 9104
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	0.00 [%]	20.00 [%]	0.00 [%]

<b>p4068[0...1]</b>	<b>TM31 analog inputs, window to suppress noise</b>		
TM31	Can be changed: U, T	Calculated: -	Access level: 3
	Data type: FloatingPoint32	Dynamic index: -	Func. diagram: 9566, 9568
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	0.00 [%]	20.00 [%]	0.00 [%]

<b>p4068[0]</b>	<b>TM41 analog input, window to suppress noise</b>		
TM41	Can be changed: U, T	Calculated: -	Access level: 3
	Data type: FloatingPoint32	Dynamic index: -	Func. diagram: 9663
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	0.00 [%]	20.00 [%]	0.00 [%]

<b>p4069[0...1]</b>	<b>BI: TB30 analog inputs, signal source for enable</b>		
TB30	Can be changed: U, T	Calculated: -	Access level: 3
	Data type: Unsigned32 / Binary	Dynamic index: -	Func. diagram: 9104
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	1

<b>p4069[0...1]</b>	<b>BI: TM31 analog inputs, signal source for enable</b>		
TM31	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Terminals Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: 9566, 9568 Unit selection: - Expert list: 1  Factory setting 1
<b>p4069[0]</b>	<b>BI: TM41 analog input, signal source for enable</b>		
TM41	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Terminals Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: 9663 Unit selection: - Expert list: 1  Factory setting 1
<b>p4071[0...1]</b>	<b>CI: TB30 analog outputs, signal source</b>		
TB30	Can be changed: U, T Data type: Unsigned32 / FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: PERCENT  Max -	Access level: 1 Func. diagram: 1790, 9106 Unit selection: - Expert list: 1  Factory setting 0
<b>p4071[0...1]</b>	<b>CI: TM31 analog outputs, signal source</b>		
TM31	Can be changed: U, T Data type: Unsigned32 / FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: PERCENT  Max -	Access level: 1 Func. diagram: 1840, 9572 Unit selection: - Expert list: 1  Factory setting 0
<b>r4072[0...1]</b>	<b>TB30 analog outputs, output value currently referred</b>		
TB30	Can be changed: - Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min - [%]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [%]	Access level: 1 Func. diagram: 9106 Unit selection: - Expert list: 1  Factory setting - [%]
<b>r4072[0...1]</b>	<b>TM31 analog outputs, output value currently referred</b>		
TM31	Can be changed: - Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min - [%]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [%]	Access level: 1 Func. diagram: 9572 Unit selection: - Expert list: 1  Factory setting - [%]

<b>p4073[0...1]</b>	<b>TB30 analog outputs, smoothing time constant</b>		
TB30	Can be changed: U, T	Calculated: -	Access level: 1
	Data type: FloatingPoint32	Dynamic index: -	Func. diagram: 9106
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min 0.0 [ms]	Max 1000.0 [ms]	Factory setting 0.0 [ms]

<b>p4073[0...1]</b>	<b>TM31 analog outputs, smoothing time constant</b>		
TM31	Can be changed: U, T	Calculated: -	Access level: 1
	Data type: FloatingPoint32	Dynamic index: -	Func. diagram: 9572
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min 0.0 [ms]	Max 1000.0 [ms]	Factory setting 0.0 [ms]

<b>r4074[0...1]</b>	<b>TB30 analog outputs, actual output voltage</b>		
TB30	Can be changed: -	Calculated: -	Access level: 1
	Data type: FloatingPoint32	Dynamic index: -	Func. diagram: 9106
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min - [V]	Max - [V]	Factory setting - [V]

<b>r4074[0...1]</b>	<b>TM31 analog outputs, current output voltage/current</b>		
TM31	Can be changed: -	Calculated: -	Access level: 1
	Data type: FloatingPoint32	Dynamic index: -	Func. diagram: 9572
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: p2001	Expert list: 1
	Min -	Max -	Factory setting -

<b>p4075[0...1]</b>	<b>TB30 analog outputs, activate absolute value generation</b>		
TB30	Can be changed: T	Calculated: -	Access level: 3
	Data type: Integer16	Dynamic index: -	Func. diagram: 9106
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min 0	Max 1	Factory setting 0

<b>p4075[0...1]</b>	<b>TM31 analog outputs, activate absolute value generation</b>		
TM31	Can be changed: T	Calculated: -	Access level: 3
	Data type: Integer16	Dynamic index: -	Func. diagram: 9572
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min 0	Max 1	Factory setting 0

<b>r4076[0...1]</b>	<b>TB30 analog outputs, type</b>		
TB30	Can be changed: - Data type: Integer16 P-Group: Terminals Not for motor type: -  Min 4	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 4	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>p4076[0...1]</b>	<b>TM31 analog outputs, type</b>		
TM31	Can be changed: U, T Data type: Integer16 P-Group: Terminals Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 4	Access level: 1 Func. diagram: 9572 Unit selection: - Expert list: 1  Factory setting 4
<b>p4077[0...1]</b>	<b>TB30 analog outputs, characteristic value x1</b>		
TB30	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -1000.00 [%]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 1000.00 [%]	Access level: 2 Func. diagram: 9106 Unit selection: - Expert list: 1  Factory setting 0.00 [%]
<b>p4077[0...1]</b>	<b>TM31 analog outputs, characteristic value x1</b>		
TM31	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -1000.00 [%]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 1000.00 [%]	Access level: 2 Func. diagram: 9572 Unit selection: - Expert list: 1  Factory setting 0.00 [%]
<b>p4078[0...1]</b>	<b>TB30 analog outputs, characteristic value y1</b>		
TB30	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -11.000 [V]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 11.000 [V]	Access level: 2 Func. diagram: 9106 Unit selection: - Expert list: 1  Factory setting 0.000 [V]
<b>p4078[0...1]</b>	<b>TM31 analog outputs, characteristic value y1</b>		
TM31	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -20.000 [V]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 20.000 [V]	Access level: 2 Func. diagram: 9572 Unit selection: - Expert list: 1  Factory setting 0.000 [V]

<b>p4079[0...1]</b>	<b>TB30 analog outputs, characteristic value x2</b>		
TB30	Can be changed: U, T	Calculated: -	Access level: 2
	Data type: FloatingPoint32	Dynamic index: -	Func. diagram: 9106
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	<b>Min</b> -1000.00 [%]	<b>Max</b> 1000.00 [%]	<b>Factory setting</b> 100.00 [%]

<b>p4079[0...1]</b>	<b>TM31 analog outputs, characteristic value x2</b>		
TM31	Can be changed: U, T	Calculated: -	Access level: 2
	Data type: FloatingPoint32	Dynamic index: -	Func. diagram: 9572
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	<b>Min</b> -1000.00 [%]	<b>Max</b> 1000.00 [%]	<b>Factory setting</b> 100.00 [%]

<b>p4080[0...1]</b>	<b>TB30 analog outputs, characteristic value y2</b>		
TB30	Can be changed: U, T	Calculated: -	Access level: 2
	Data type: FloatingPoint32	Dynamic index: -	Func. diagram: 9106
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	<b>Min</b> -11.000 [V]	<b>Max</b> 11.000 [V]	<b>Factory setting</b> 10.000 [V]

<b>p4080[0...1]</b>	<b>TM31 analog outputs, characteristic value y2</b>		
TM31	Can be changed: U, T	Calculated: -	Access level: 2
	Data type: FloatingPoint32	Dynamic index: -	Func. diagram: 9572
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	<b>Min</b> -20.000 [V]	<b>Max</b> 20.000 [V]	<b>Factory setting</b> 10.000 [V]

<b>p4082[0...1]</b>	<b>BI: TB30 analog outputs invert signal source</b>		
TB30	Can be changed: U, T	Calculated: -	Access level: 3
	Data type: Unsigned32 / Binary	Dynamic index: -	Func. diagram: 9106
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p4082[0...1]</b>	<b>BI: TM31 analog outputs invert signal source</b>		
TM31	Can be changed: U, T	Calculated: -	Access level: 3
	Data type: Unsigned32 / Binary	Dynamic index: -	Func. diagram: 9572
	P-Group: Terminals	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p4083[0...1]</b>	<b>TB30 analog outputs, offset</b>		
TB30	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -10.000	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 10.000	Access level: 1 Func. diagram: 9106 Unit selection: - Expert list: 1  Factory setting 0.000
<b>p4083[0...1]</b>	<b>TM31 analog outputs, offset</b>		
TM31	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -20.000	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 20.000	Access level: 1 Func. diagram: 9572 Unit selection: - Expert list: 1  Factory setting 0.000
<b>p4086</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 16</b>		
TM15DI_DO	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9402 Unit selection: - Expert list: 1  Factory setting 0
<b>p4087</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 17</b>		
TM15DI_DO	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9402 Unit selection: - Expert list: 1  Factory setting 0
<b>p4088</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 18</b>		
TM15DI_DO	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9402 Unit selection: - Expert list: 1  Factory setting 0
<b>p4089</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 19</b>		
TM15DI_DO	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9402 Unit selection: - Expert list: 1  Factory setting 0

<b>p4090</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 20</b>		
TM15DI_DO	Can be changed: U, T	Calculated: -	Access level: 1
	Data type: Unsigned32 / Binary	Dynamic index: -	Func. diagram: 9402
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	0

<b>p4091</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 21</b>		
TM15DI_DO	Can be changed: U, T	Calculated: -	Access level: 1
	Data type: Unsigned32 / Binary	Dynamic index: -	Func. diagram: 9402
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	0

<b>p4092</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 22</b>		
TM15DI_DO	Can be changed: U, T	Calculated: -	Access level: 1
	Data type: Unsigned32 / Binary	Dynamic index: -	Func. diagram: 9402
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	0

<b>p4093</b>	<b>BI: TM15DI/DO signal source for terminal DI/DO 23</b>		
TM15DI_DO	Can be changed: U, T	Calculated: -	Access level: 1
	Data type: Unsigned32 / Binary	Dynamic index: -	Func. diagram: 9402
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	0

<b>r4094.0...23</b>	<b>BO: TM15 digital inputs status inverted raw data internal</b>		
TM15DI_DO	Can be changed: -	Calculated: -	Access level: 4
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>p4095</b>	<b>TB30 digital inputs, simulation mode</b>		
TB30	Can be changed: U, T	Calculated: -	Access level: 2
	Data type: Unsigned32	Dynamic index: -	Func. diagram: 1790, 9100
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	0000 bin



<b>p4095 TM15DI/DO digital inputs, simulation mode</b>			
TM15DI_DO	Can be changed: U, T Data type: Unsigned32  P-Group: Terminals Not for motor type: -  Min -	Calculated: - Dynamic index: -  Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 9400, 9401, 9402 Unit selection: - Expert list: 1 Factory setting 0000 0000 0000 0000 0000 0000 0000 0000 bin
<b>p4095 TM31 digital inputs, simulation mode</b>			
TM31	Can be changed: U, T Data type: Unsigned32  P-Group: Terminals Not for motor type: -  Min -	Calculated: - Dynamic index: -  Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 1840, 9550, 9552, 9560, 9562 Unit selection: - Expert list: 1 Factory setting 0000 0000 0000 0000 bin
<b>p4095 TM41 digital inputs, simulation mode</b>			
TM41	Can be changed: U, T Data type: Unsigned32 P-Group: Terminals Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0000 0000 0000 0000 bin
<b>p4096 TB30 digital inputs, simulation mode setpoint</b>			
TB30	Can be changed: U, T Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 1790, 9100 Unit selection: - Expert list: 1 Factory setting 0000 bin
<b>p4096 TM15DI/DO digital inputs, simulation mode, setpoint</b>			
TM15DI_DO	Can be changed: U, T Data type: Unsigned32  P-Group: Terminals Not for motor type: -  Min -	Calculated: - Dynamic index: -  Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 9400, 9401, 9402 Unit selection: - Expert list: 1 Factory setting 0000 0000 0000 0000 0000 0000 0000 0000 bin

<b>p4096</b>	<b>TM31 digital inputs, simulation mode setpoint</b>		
TM31	Can be changed: U, T Data type: Unsigned32  P-Group: Terminals Not for motor type: -  Min -	Calculated: - Dynamic index: -  Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 1840, 9550, 9552, 9560, 9562 Unit selection: - Expert list: 1 Factory setting 0000 0000 0000 0000 bin

<b>p4096</b>	<b>TM41 digital inputs, simulation mode setpoint</b>		
TM41	Can be changed: U, T Data type: Unsigned32  P-Group: Terminals Not for motor type: -  Min -	Calculated: - Dynamic index: -  Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0000 0000 0000 0000 bin

<b>p4097[0...1]</b>	<b>TB30 analog inputs simulation mode</b>		
TB30	Can be changed: U, T Data type: Integer16  P-Group: Terminals Not for motor type: -  Min 0	Calculated: - Dynamic index: -  Units group: - Scaling: -  Max 1	Access level: 2 Func. diagram: 9104 Unit selection: - Expert list: 1 Factory setting 0

<b>p4097[0...1]</b>	<b>TM31 analog inputs simulation mode</b>		
TM31	Can be changed: U, T Data type: Integer16  P-Group: Terminals Not for motor type: -  Min 0	Calculated: - Dynamic index: -  Units group: - Scaling: -  Max 1	Access level: 2 Func. diagram: 9566, 9568 Unit selection: - Expert list: 1 Factory setting 0

<b>p4097[0]</b>	<b>TM41 analog input, simulation mode</b>		
TM41	Can be changed: U, T Data type: Integer16  P-Group: Terminals Not for motor type: -  Min 0	Calculated: - Dynamic index: -  Units group: - Scaling: -  Max 1	Access level: 2 Func. diagram: 9663 Unit selection: - Expert list: 1 Factory setting 0

<b>p4098[0...1]</b>	<b>TB30 analog inputs simulation mode setpoint</b>		
TB30	Can be changed: U, T Data type: FloatingPoint32  P-Group: Terminals Not for motor type: -  Min -11.000 [V]	Calculated: - Dynamic index: -  Units group: - Scaling: -  Max 11.000 [V]	Access level: 2 Func. diagram: 9104 Unit selection: - Expert list: 1 Factory setting 0.000 [V]

<b>p4098[0...1]</b>	<b>TM31 analog inputs simulation mode setpoint</b>		
TM31	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -20.000	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 20.000	Access level: 2 Func. diagram: 9566, 9568 Unit selection: - Expert list: 1  Factory setting 0.000
<b>p4098[0]</b>	<b>TM41 analog input, simulation mode setpoint</b>		
TM41	Can be changed: U, T Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min -20.000 [V]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 20.000 [V]	Access level: 2 Func. diagram: 9663 Unit selection: - Expert list: 1  Factory setting 0.000 [V]
<b>p4099</b>	<b>Inputs/outputs sampling time</b>		
SERVO (Dig IO), SERVO_840 (Dig IO)	Can be changed: C1(3) Data type: FloatingPoint32 P-Group: Commands Not for motor type: -  Min 125.00 [μs]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 5000.00 [μs]	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 4000.00 [μs]
<b>p4099[0...2]</b>	<b>TB30 inputs/outputs, sampling time</b>		
TB30	Can be changed: C1(3) Data type: FloatingPoint32 P-Group: Commands Not for motor type: -  Min 0.00 [μs]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 5000.00 [μs]	Access level: 3 Func. diagram: 1790, 9100 Unit selection: - Expert list: 1  Factory setting [0] 4000.00 [μs] [1] 4000.00 [μs] [2] 4000.00 [μs]
<b>p4099</b>	<b>TM15 inputs/outputs, sampling time</b>		
TM15	Can be changed: C1(3) Data type: FloatingPoint32 P-Group: Commands Not for motor type: -  Min 31.25 [μs]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 500.00 [μs]	Access level: 3 Func. diagram: 1780 Unit selection: - Expert list: 1  Factory setting 125.00 [μs]
<b>p4099</b>	<b>TM15DI/DO inputs/outputs, sampling time</b>		
TM15DI_DO	Can be changed: C1(3) Data type: FloatingPoint32 P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 1781, 9400 Unit selection: - Expert list: 1

	Min 0.00 [µs]	Max 5000.00 [µs]	Factory setting 4000.00 [µs]
<b>p4099 TM17 inputs/outputs, sampling time</b>			
TM17	Can be changed: C1(3) Data type: FloatingPoint32 P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 1782 Unit selection: - Expert list: 1
	Min 31.25 [µs]	Max 500.00 [µs]	Factory setting 125.00 [µs]
<b>p4099[0...2] TM31 inputs/outputs, sampling time</b>			
TM31	Can be changed: C1(3) Data type: FloatingPoint32 P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 1840, 9550 Unit selection: - Expert list: 1
	Min 0.00 [µs]	Max 5000.00 [µs]	Factory setting 4000.00 [µs]
<b>p4099[0...3] TM41 inputs/outputs, sampling time</b>			
TM41	Can be changed: C1(3) Data type: FloatingPoint32 P-Group: Commands Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 1842, 9660 Unit selection: - Expert list: 1
	Min 0.00 [µs]	Max 5000.00 [µs]	Factory setting [0] 4000.00 [µs] [1] 4000.00 [µs] [2] 0.00 [µs] [3] 125.00 [µs]
<b>p4100 Spindle supplementary temperature sensor type</b>			
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	Can be changed: T Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 2	Factory setting 0
<b>p4100[0...3] TM120 temperature evaluation, sensor type</b>			
TM120	Can be changed: T Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: 9605, 9606 Unit selection: - Expert list: 1
	Min 0	Max 4	Factory setting 1

<b>p4100[0...11]</b>	<b>TM150 sensor type</b>		
TM150	Can be changed: T Data type: Integer16 P-Group: - Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 6	Access level: 1 Func. diagram: 9626, 9627 Unit selection: - Expert list: 1  Factory setting 5
<b>p4100</b>	<b>TM31 sensor type</b>		
TM31	Can be changed: T Data type: Integer16 P-Group: - Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 2	Access level: 1 Func. diagram: 9576 Unit selection: - Expert list: 1  Factory setting 0
<b>r4101[0...3]</b>	<b>TM120 sensor resistance</b>		
TM120	Can be changed: - Data type: Unsigned16 P-Group: Terminals Not for motor type: -  Min - [ohm]	Calculated: - Dynamic index: - Units group: - Scaling: PERCENT  Max - [ohm]	Access level: 3 Func. diagram: 9605, 9606 Unit selection: - Expert list: 1  Factory setting - [ohm]
<b>r4101[0...11]</b>	<b>TM150 sensor resistance</b>		
TM150	Can be changed: - Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min - [ohm]	Calculated: - Dynamic index: - Units group: - Scaling: PERCENT  Max - [ohm]	Access level: 3 Func. diagram: 9626, 9627 Unit selection: - Expert list: 1  Factory setting - [ohm]
<b>r4101</b>	<b>TM31 sensor resistance</b>		
TM31	Can be changed: - Data type: Unsigned16 P-Group: Terminals Not for motor type: -  Min - [ohm]	Calculated: - Dynamic index: - Units group: - Scaling: PERCENT  Max - [ohm]	Access level: 3 Func. diagram: 9576 Unit selection: - Expert list: 1  Factory setting - [ohm]
<b>p4102[0...1]</b>	<b>Spindle supplementary temperature fault threshold/alarm thresh.</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	Can be changed: T Data type: FloatingPoint32 P-Group: - Not for motor type: -  Min -300.0 [°C]	Calculated: - Dynamic index: - Units group: 21_1 Scaling: -  Max 9999.0 [°C]	Access level: 1 Func. diagram: - Unit selection: p0505 Expert list: 1  Factory setting [0] 120.0 [°C] [1] 155.0 [°C]

<b>p4102[0...7]</b>	<b>TM120 fault threshold/alarm threshold</b>		
TM120	Can be changed: T Data type: Integer16 P-Group: - Not for motor type: -  Min -48 [°C]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 251 [°C]	Access level: 1 Func. diagram: 9605, 9606 Unit selection: - Expert list: 1  Factory setting 251 [°C]

<b>p4102[0...23]</b>	<b>TM150 fault threshold/alarm threshold</b>		
TM150	Can be changed: T Data type: Integer16 P-Group: - Not for motor type: -  Min -99 [°C]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 251 [°C]	Access level: 1 Func. diagram: 9626, 9627 Unit selection: - Expert list: 1  Factory setting 251 [°C]

<b>p4102[0...1]</b>	<b>TM31 fault threshold/alarm threshold</b>		
TM31	Can be changed: T Data type: Integer16 P-Group: - Not for motor type: -  Min -48 [°C]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 251 [°C]	Access level: 1 Func. diagram: 9576 Unit selection: - Expert list: 1  Factory setting [0] 100 [°C] [1] 120 [°C]

<b>p4103</b>	<b>Spindle supplementary temperature delay time</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	Can be changed: U, T Data type: FloatingPoint32 P-Group: Motor Not for motor type: -  Min 0.000 [s]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 600.000 [s]	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0.000 [s]

<b>p4103[0...3]</b>	<b>TM120 temperature evaluation delay time</b>		
TM120	Can be changed: U, T Data type: FloatingPoint32 P-Group: Motor Not for motor type: -  Min 0.000 [ms]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 600000.000 [ms]	Access level: 1 Func. diagram: 9605, 9606 Unit selection: - Expert list: 1  Factory setting 0.000 [ms]

<b>p4103[0...11]</b>	<b>TM150 delay time</b>		
TM150	Can be changed: U, T Data type: FloatingPoint32 P-Group: Motor Not for motor type: -  Min 0.0 [s]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 600.0 [s]	Access level: 1 Func. diagram: 9626, 9627 Unit selection: - Expert list: 1  Factory setting 0.0 [s]

<b>p4103</b>	<b>TM31 temperature evaluation delay time</b>		
TM31	Can be changed: U, T Data type: FloatingPoint32 P-Group: Motor Not for motor type: -  Min 0.000 [ms]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 600000.000 [ms]	Access level: 1 Func. diagram: 9576 Unit selection: - Expert list: 1  Factory setting 0.000 [ms]
<b>r4104.0...2</b>	<b>BO: Spindle supplementary temperature status</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	Can be changed: - Data type: Unsigned16 P-Group: Terminals Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4104.0...7</b>	<b>BO: TM120 temperature evaluation, status</b>		
TM120	Can be changed: - Data type: Unsigned16 P-Group: Terminals Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9605, 9606 Unit selection: - Expert list: 1  Factory setting -
<b>r4104.0...23</b>	<b>BO: TM150 temperature evaluation, status</b>		
TM150	Can be changed: - Data type: Unsigned32 P-Group: Terminals Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9626, 9627 Unit selection: - Expert list: 1  Factory setting -
<b>r4104.0...1</b>	<b>BO: TM31 temperature evaluation, status</b>		
TM31	Can be changed: - Data type: Unsigned16 P-Group: Terminals Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 1840, 9576 Unit selection: - Expert list: 1  Factory setting -
<b>r4105</b>	<b>CO: Spindle supplementary temperature actual value</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	Can be changed: - Data type: FloatingPoint32 P-Group: Terminals Not for motor type: -  Min - [°C]	Calculated: - Dynamic index: - Units group: - Scaling: p2006  Max - [°C]	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [°C]

<b>r4105[0...3]</b>	<b>CO: TM120 temperature actual value</b>		
TM120	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 8016, 9605, 9606
	<b>P-Group:</b> Terminals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2006	<b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

<b>r4105[0...11]</b>	<b>CO: TM150 temperature actual value</b>		
TM150	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 9626, 9627
	<b>P-Group:</b> Terminals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2006	<b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

<b>r4105</b>	<b>CO: TM31 temperature actual value</b>		
TM31	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 1840, 9576
	<b>P-Group:</b> Terminals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2006	<b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

<b>r4107</b>	<b>Spindle supplementary temperature sensor use</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 6	<b>Factory setting</b> -

<b>p4108[0...5]</b>	<b>TM150 terminal block measuring method</b>		
TM150	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 9625, 9626, 9627
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 1

<b>p4109[0...11]</b>	<b>TM150 conductor resistance measurement</b>		
TM150	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 9626, 9627
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1



	Min	Max	Factory setting
	0	1	0
<b>p4110[0...11]</b>	<b>TM150 conductor resistance value</b>		
TM150	Can be changed: T Data type: FloatingPoint32 P-Group: - Not for motor type: -  Min 0.00 [ohm]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 3000.00 [ohm]	Access level: 1 Func. diagram: 9626, 9627 Unit selection: - Expert list: 1  Factory setting 0.00 [ohm]
<b>p4111[0...2]</b>	<b>TM150 group channel assignment</b>		
TM150	Can be changed: T Data type: Unsigned16 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: 9625 Unit selection: - Expert list: 1  Factory setting 0000 0000 0000 0000 bin
<b>r4112[0...2]</b>	<b>CO: TM150 group temperature actual value maximum value</b>		
TM150	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -  Min - [°C]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [°C]	Access level: 1 Func. diagram: 9625 Unit selection: - Expert list: 1  Factory setting - [°C]
<b>r4113[0...2]</b>	<b>CO: TM150 group temperature actual value minimum value</b>		
TM150	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -  Min - [°C]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [°C]	Access level: 1 Func. diagram: 9625 Unit selection: - Expert list: 1  Factory setting - [°C]
<b>r4114[0...2]</b>	<b>CO: TM150 group temperature average actual value</b>		
TM150	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -  Min - [°C]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [°C]	Access level: 1 Func. diagram: 9625 Unit selection: - Expert list: 1  Factory setting - [°C]

<b>p4117[0...2]</b>	<b>TM150 group sensor error effect</b>		
TM150	Can be changed: U, T Data type: Integer16 P-Group: - Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 1	Access level: 1 Func. diagram: 9625 Unit selection: - Expert list: 1  Factory setting 0

<b>p4118[0...11]</b>	<b>TM150 fault threshold/alarm threshold hysteresis</b>		
TM150	Can be changed: T Data type: Unsigned16 P-Group: - Not for motor type: -  Min 0 [K]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 50 [K]	Access level: 1 Func. diagram: 9626, 9627 Unit selection: - Expert list: 1  Factory setting 5 [K]

<b>p4119[0...11]</b>	<b>TM150 activate/deactivate smoothing</b>		
TM150	Can be changed: T Data type: Integer16 P-Group: - Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 1	Access level: 1 Func. diagram: 9626, 9627 Unit selection: - Expert list: 1  Factory setting 0

<b>r4120</b>	<b>TM150 temperature filter time constant</b>		
TM150	Can be changed: - Data type: Unsigned16 P-Group: - Not for motor type: -  Min - [ms]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [ms]	Access level: 1 Func. diagram: 9626, 9627 Unit selection: - Expert list: 1  Factory setting - [ms]

<b>p4121</b>	<b>TM150 filter rated line frequency</b>		
TM150	Can be changed: T Data type: Integer16 P-Group: - Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 1	Access level: 1 Func. diagram: 9626, 9627 Unit selection: - Expert list: 1  Factory setting 0

<b>r4154</b>	<b>TM41 diagnostics speed setpoint non-filtered</b>		
TM41	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -  Min - [rpm]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [rpm]	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [rpm]

<b>r4155</b>	<b>TM41 diagnostics speed setpoint</b>		
TM41	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -  Min - [rpm]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max - [rpm]	Access level: 3 Func. diagram: 9674 Unit selection: - Expert list: 1  Factory setting - [rpm]
<b>r4201</b>	<b>TM15 system time for synchronization</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4201</b>	<b>TM17 system time for synchronization</b>		
TM17	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4204</b>	<b>TM15 control digital output 0 ... 15</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4204</b>	<b>TM17 control digital output 0 ... 15</b>		
TM17	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4205</b>	<b>TM15 control digital output 16 ... 23</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r4211</b>	<b>TM15 edge mode digital input 0 ... 7</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4211</b>	<b>TM17 edge mode digital input 0 ... 7</b>		
TM17	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4212</b>	<b>TM15 edge mode digital input 8 ... 15</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4212</b>	<b>TM17 edge mode digital input 8 ... 15</b>		
TM17	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4213</b>	<b>TM15 edge mode digital input 16 ... 23</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>p4220</b>	<b>TM17 enable DI/DO 0 ... 5</b>		
TM17	Can be changed: T	Calculated: -	Access level: 2
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	0000 0000 0000 0000 bin

<b>p4221</b>	<b>TM17 smoothing time constant, digital input 0 ... 15</b>		
TM17	Can be changed: U, T Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0000 0000 0000 0000 bin
<b>p4222</b>	<b>TM17 time absolute/relative digital output 0 ... 15</b>		
TM17	Can be changed: T Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0000 0000 0000 0000 bin
<b>r4250</b>	<b>TM15 set/reset time digital output 0</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4250</b>	<b>TM17 set/reset time digital output 0</b>		
TM17	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4251</b>	<b>TM15 set/reset time digital output 1</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4251</b>	<b>TM17 set/reset time digital output 1</b>		
TM17	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r4252</b>	<b>TM15 set/reset time digital output 2</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4252</b>	<b>TM17 set/reset time digital output 2</b>		
TM17	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4253</b>	<b>TM15 set/reset time digital output 3</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4253</b>	<b>TM17 set/reset time digital output 3</b>		
TM17	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4254</b>	<b>TM15 set/reset time digital output 4</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4254</b>	<b>TM17 set/reset time digital output 4</b>		
TM17	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4255</b>	<b>TM15 set/reset time digital output 5</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4255</b>	<b>TM17 set/reset time digital output 5</b>		
TM17	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4256</b>	<b>TM15 set/reset time digital output 6</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4256</b>	<b>TM17 set/reset time digital output 6</b>		
TM17	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4257</b>	<b>TM15 set/reset time digital output 7</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4257</b>	<b>TM17 set/reset time digital output 7</b>		
TM17	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r4258</b>	<b>TM15 set/reset time digital output 8</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4258</b>	<b>TM17 set/reset time digital output 8</b>		
TM17	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4259</b>	<b>TM15 set/reset time digital output 9</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4259</b>	<b>TM17 set/reset time digital output 9</b>		
TM17	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4260</b>	<b>TM15 set/reset time digital output 10</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4260</b>	<b>TM17 set/reset time digital output 10</b>		
TM17	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-



<b>r4261</b>	<b>TM15 set/reset time digital output 11</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4261</b>	<b>TM17 set/reset time digital output 11</b>		
TM17	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4262</b>	<b>TM15 set/reset time digital output 12</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4262</b>	<b>TM17 set/reset time digital output 12</b>		
TM17	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4263</b>	<b>TM15 set/reset time digital output 13</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4263</b>	<b>TM17 set/reset time digital output 13</b>		
TM17	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r4264</b>	<b>TM15 set/reset time digital output 14</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4264</b>	<b>TM17 set/reset time digital output 14</b>		
TM17	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4265</b>	<b>TM15 set/reset time digital output 15</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4265</b>	<b>TM17 set/reset time digital output 15</b>		
TM17	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4266</b>	<b>TM15 set/reset time digital output 16</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4267</b>	<b>TM15 set/reset time digital output 17</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4268</b>	<b>TM15 set/reset time digital output 18</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4269</b>	<b>TM15 set/reset time digital output 19</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4270</b>	<b>TM15 set/reset time digital output 20</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4271</b>	<b>TM15 set/reset time digital output 21</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4272</b>	<b>TM15 set/reset time digital output 22</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4273</b>	<b>TM15 set/reset time digital output 23</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r4301</b>	<b>TM15 module synchronization</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4301</b>	<b>TM17 module synchronization</b>		
TM17	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4304</b>	<b>TM15 status, digital input 0 ... 15</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4304</b>	<b>TM17 status, digital input 0 ... 15</b>		
TM17	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4305</b>	<b>TM15 status, digital input 16 ... 23</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4311</b>	<b>TM15 edge status digital input 0 ... 7</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r4311</b>	<b>TM17 edge status digital input 0 ... 7</b>		
TM17	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4312</b>	<b>TM15 edge status digital input 8 ... 15</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4312</b>	<b>TM17 edge status digital input 8 ... 15</b>		
TM17	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4313</b>	<b>TM15 edge status digital input 16 ... 23</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4350</b>	<b>TM15 edge times digital input 0</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4350</b>	<b>TM17 edge times digital input 0</b>		
TM17	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r4351</b>	<b>TM15 edge times digital input 1</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r4351</b>	<b>TM17 edge times digital input 1</b>		
TM17	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r4352</b>	<b>TM15 edge times digital input 2</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r4352</b>	<b>TM17 edge times digital input 2</b>		
TM17	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r4353</b>	<b>TM15 edge times digital input 3</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r4353</b>	<b>TM17 edge times digital input 3</b>		
TM17	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

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<b>r4354</b>	<b>TM15 edge times digital input 4</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

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<b>r4354</b>	<b>TM17 edge times digital input 4</b>		
TM17	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

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<b>r4355</b>	<b>TM15 edge times digital input 5</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

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<b>r4355</b>	<b>TM17 edge times digital input 5</b>		
TM17	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

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<b>r4356</b>	<b>TM15 edge times digital input 6</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

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<b>r4356</b>	<b>TM17 edge times digital input 6</b>		
TM17	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

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<b>r4357</b>	<b>TM15 edge times digital input 7</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4357</b>	<b>TM17 edge times digital input 7</b>		
TM17	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4358</b>	<b>TM15 edge times digital input 8</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4358</b>	<b>TM17 edge times digital input 8</b>		
TM17	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4359</b>	<b>TM15 edge times digital input 9</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4359</b>	<b>TM17 edge times digital input 9</b>		
TM17	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-



<b>r4360</b>	<b>TM15 edge times digital input 10</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4360</b>	<b>TM17 edge times digital input 10</b>		
TM17	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4361</b>	<b>TM15 edge times digital input 11</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4361</b>	<b>TM17 edge times digital input 11</b>		
TM17	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4362</b>	<b>TM15 edge times digital input 12</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4362</b>	<b>TM17 edge times digital input 12</b>		
TM17	Can be changed: - Data type: Unsigned32 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r4363</b>	<b>TM15 edge times digital input 13</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4363</b>	<b>TM17 edge times digital input 13</b>		
TM17	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4364</b>	<b>TM15 edge times digital input 14</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4364</b>	<b>TM17 edge times digital input 14</b>		
TM17	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4365</b>	<b>TM15 edge times digital input 15</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4365</b>	<b>TM17 edge times digital input 15</b>		
TM17	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4366</b>	<b>TM15 edge times digital input 16</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4367</b>	<b>TM15 edge times digital input 17</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4368</b>	<b>TM15 edge times digital input 18</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4369</b>	<b>TM15 edge times digital input 19</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4370</b>	<b>TM15 edge times digital input 20</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r4371</b>	<b>TM15 edge times digital input 21</b>		
TM15	Can be changed: - Data type: Unsigned16 P-Group: Commands Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r4372</b>	<b>TM15 edge times digital input 22</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4373</b>	<b>TM15 edge times digital input 23</b>		
TM15	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Commands	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>p4400</b>	<b>TM41 encoder emulation operating mode</b>		
TM41	Can be changed: U, T	Calculated: -	Access level: 3
	Data type: Integer16	Dynamic index: -	Func. diagram: 9674, 9676
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	0	1	0

<b>p4401</b>	<b>TM41 encoder emulation mode</b>		
TM41	Can be changed: U, T	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: 9674, 9676
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	1111 0011 bin

<b>r4402.0...2</b>	<b>CO/BO: TM41 encoder emulation status</b>		
TM41	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: 9674, 9676
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>r4403</b>	<b>TM41 encoder emulation operating mode active</b>		
TM41	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: 9674, 9676
	P-Group: Closed-loop control	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

<b>p4404</b>	<b>TM41 encoder emulation controller options</b>		
TM41	Can be changed: C2(4) Data type: Unsigned16 P-Group: Encoder Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0001 bin
<b>p4408</b>	<b>TM41 encoder emulation pulse number leading encoder</b>		
TM41	Can be changed: C2(4) Data type: Unsigned32 P-Group: Encoder Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 16384	Access level: 3 Func. diagram: 9674, 9676 Unit selection: - Expert list: 1  Factory setting 0
<b>p4418</b>	<b>TM41 encoder emulation fine resolution leading encoder</b>		
TM41	Can be changed: C2(4) Data type: Unsigned8 P-Group: Encoder Not for motor type: -  Min 2	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 18	Access level: 3 Func. diagram: 9674, 9676 Unit selection: - Expert list: 1  Factory setting 11
<b>r4419</b>	<b>TM41 encoder emulation diagnostics position setpoint</b>		
TM41	Can be changed: - Data type: Integer32 P-Group: Encoder Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: 9676 Unit selection: - Expert list: 1  Factory setting -
<b>p4420</b>	<b>CI: TM41 encoder emulation position setpoint</b>		
TM41	Can be changed: T Data type: Unsigned32 / Integer32 P-Group: Setpoints Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: 9676 Unit selection: - Expert list: 1  Factory setting 0
<b>p4421</b>	<b>TM41 encoder emulation deadtime compensation</b>		
TM41	Can be changed: U, T Data type: FloatingPoint32 P-Group: Setpoints Not for motor type: -  Min -10.00	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 10.00	Access level: 3 Func. diagram: 9676 Unit selection: - Expert list: 1  Factory setting 0.00

<b>p4422</b>	<b>TM41 encoder emulation position setpoint inversion</b>		
TM41	Can be changed: C2(4)	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: 9676
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min 0	Max 1	Factory setting 0

<b>p4423</b>	<b>TM41 encoder emulation standstill adaptation</b>		
TM41	Can be changed: C2(4)	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: 9676
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min 0	Max 2000	Factory setting 4

<b>p4426</b>	<b>TM41 encoder emulation pulses for zero mark</b>		
TM41	Can be changed: C2(4)	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: 9674
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min 0	Max 16384	Factory setting 0

<b>r4427</b>	<b>TM41 encoder emulation zero mark position</b>		
TM41	Can be changed: -	Calculated: -	Access level: 4
	Data type: Integer32	Dynamic index: -	Func. diagram: -
	P-Group: Encoder	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min -	Max -	Factory setting -

<b>p4600[0...n]</b>	<b>Motor temperature sensor 1 sensor type</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(3), U, T	Calculated: -	Access level: 2
	Data type: Integer16	Dynamic index: EDS, p0140	Func. diagram: 8016
	P-Group: Motor	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min 0	Max 32	Factory setting 0

<b>p4601[0...n]</b>	<b>Motor temperature sensor 2 sensor type</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(3), U, T	Calculated: -	Access level: 2
	Data type: Integer16	Dynamic index: EDS, p0140	Func. diagram: 8016
	P-Group: Motor	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min 0	Max 32	Factory setting 0

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<b>p4602[0...n]</b>	<b>Motor temperature sensor 3 sensor type</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 32	<b>Factory setting</b> 0

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<b>p4603[0...n]</b>	<b>Motor temperature sensor 4 sensor type</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 32	<b>Factory setting</b> 0

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<b>p4610[0...n]</b>	<b>Motor temperature sensor 1 sensor type MDS</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 32	<b>Factory setting</b> 10

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<b>p4611[0...n]</b>	<b>Motor temperature sensor 2 sensor type MDS</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 32	<b>Factory setting</b> 10

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<b>p4612[0...n]</b>	<b>Motor temperature sensor 3 sensor type MDS</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 32	<b>Factory setting</b> 10

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<b>p4613[0...n]</b>	<b>Motor temperature sensor 4 sensor type MDS</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(3), U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Motor <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> MDS, p0130 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 8016 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 32	<b>Factory setting</b> 10

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<b>r4620[0...3]</b>	<b>Motor temperature measured</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

<b>r4640[0...95]</b>	<b>Encoder diagnostics state machine</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p4650</b>	<b>Encoder functional reserve component number</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 399	<b>Factory setting</b> 0

<b>r4651[0...3]</b>	<b>Encoder functional reserve</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>p4652</b>	<b>XIST1_ERW reset mode</b>		
ENC, ENC_840	<b>Can be changed:</b> C1(3) <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4750 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 0

<b>p4652[0...2]</b>	<b>XIST1_ERW reset mode</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C1(3) <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4750 <b>Unit selection:</b> - <b>Expert list:</b> 1



	Min	Max	Factory setting
	0	3	0
<b>r4653</b>	<b>CO: XIST1_ERW actual value</b>		
ENC, ENC_840	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 4750 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r4653[0...2]</b>	<b>CO: XIST1_ERW actual value</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 4750 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r4654.0</b>	<b>CO/BO: XIST1_ERW status</b>		
ENC, ENC_840	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 4750 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r4654.0...16</b>	<b>CO/BO: XIST1_ERW status</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 4750 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>p4655</b>	<b>BI: XIST1_ERW reset signal source</b>		
ENC, ENC_840	Can be changed: T Data type: Unsigned32 / Binary P-Group: Encoder Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 4750 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0

<b>p4655[0...2]</b>	<b>BI: XIST1_ERW reset signal source</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 4750 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p4660</b>	<b>Sensor Module filter bandwidth</b>		
ENC, ENC_840	<b>Can be changed:</b> C2(4) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [kHz]	<b>Max</b> 20000.00 [kHz]	<b>Factory setting</b> 0.00 [kHz]

<b>p4660[0...2]</b>	<b>Sensor Module filter bandwidth</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [kHz]	<b>Max</b> 20000.00 [kHz]	<b>Factory setting</b> 0.00 [kHz]

<b>r4661</b>	<b>Sensor Module filter bandwidth display</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [kHz]	<b>Max</b> - [kHz]	<b>Factory setting</b> - [kHz]

<b>r4661[0...2]</b>	<b>Sensor Module filter bandwidth display</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [kHz]	<b>Max</b> - [kHz]	<b>Factory setting</b> - [kHz]

<b>p4662[0...n]</b>	<b>Encoder characteristic type</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p4663[0...n]</b>	<b>Encoder characteristic K0</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p4664[0...n]</b>	<b>Encoder characteristic K1</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p4665[0...n]</b>	<b>Encoder characteristic K2</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p4666[0...n]</b>	<b>Encoder characteristic K3</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p4670[0...n]</b>	<b>Analog sensor configuration</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 0000 0000 0000 0000 bin

<b>p4671[0...n]</b>	<b>Analog sensor input</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Integer16 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 0

<b>p4672[0...n]</b>	<b>Analog sensor channel A voltage at actual value zero</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -10.0000 [V]	<b>Max</b> 10.0000 [V]	<b>Factory setting</b> 0.0000 [V]

<b>p4673[0...n]</b>	<b>Analog sensor channel A voltage per encoder period</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -10.0000 [V]	<b>Max</b> 10.0000 [V]	<b>Factory setting</b> 6.0000 [V]

<b>p4674[0...n]</b>	<b>Analog sensor channel B voltage at actual value zero</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -10.0000 [V]	<b>Max</b> 10.0000 [V]	<b>Factory setting</b> 0.0000 [V]

<b>p4675[0...n]</b>	<b>Analog sensor channel B voltage per encoder period</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -10.0000 [V]	<b>Max</b> 10.0000 [V]	<b>Factory setting</b> 6.0000 [V]

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<b>p4676[0...n]</b>	<b>Analog sensor range limit threshold</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 100.0 [%]	<b>Factory setting</b> 100.0 [%]

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<b>p4677[0...n]</b>	<b>Analog sensor LVDT configuration</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin

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<b>p4678[0...n]</b>	<b>Analog sensor LVDT ratio</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 200.00 [%]	<b>Factory setting</b> 50.00 [%]

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<b>p4679[0...n]</b>	<b>Analog sensor LVDT phase</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4), T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -360.00 [°]	<b>Max</b> 360.00 [°]	<b>Factory setting</b> 0.00 [°]

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<b>p4680[0...n]</b>	<b>Zero mark monitoring tolerance permissible</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1000	<b>Factory setting</b> 4

<b>p4681[0...n]</b>	<b>Zero mark monitoring, tolerance window limit 1 positive</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1000	<b>Factory setting</b> 2

<b>p4682[0...n]</b>	<b>Zero mark monitoring, tolerance window limit 1 negative</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Integer32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -1001	<b>Max</b> 0	<b>Factory setting</b> -1001

<b>p4683[0...n]</b>	<b>Zero mark monitoring tolerance window alarm threshold positive</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 100000	<b>Factory setting</b> 0

<b>p4684[0...n]</b>	<b>Zero mark monitoring tolerance window alarm threshold negative</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Integer32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -100001	<b>Max</b> 0	<b>Factory setting</b> -100001

<b>p4685[0...n]</b>	<b>Speed actual value mean value generation</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 20	<b>Factory setting</b> 0

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<b>p4686[0...n]</b>	<b>Zero mark minimum length</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(4) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> EDS, p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 10	<b>Factory setting</b> 1

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<b>p4688</b>	<b>CO: Zero mark monitoring, differential pulse count</b>		
ENC, ENC_840	<b>Can be changed:</b> T <b>Data type:</b> Integer32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147483648	<b>Max</b> 2147483647	<b>Factory setting</b> 0

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<b>p4688[0...2]</b>	<b>CO: Zero mark monitoring, differential pulse count</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147483648	<b>Max</b> 2147483647	<b>Factory setting</b> 0

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<b>r4689</b>	<b>CO: Squarewave encoder, diagnostics</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r4689[0...2]</b>	<b>CO: Squarewave encoder, diagnostics</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Encoder <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>p4690</b>	<b>SMI spare part component number</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1

	<b>Min</b> 0	<b>Max</b> 399	<b>Factory setting</b> 0
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**p4691 SMI spare part save/download data**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
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	<b>Min</b> 0	<b>Max</b> 39	<b>Factory setting</b> 0
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**p4692 SMI spare part save data of all SMIs**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
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	<b>Min</b> 0	<b>Max</b> 29	<b>Factory setting</b> 0
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**p4693[0...1] SMI spare part data backup directory**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
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	<b>Min</b> 0	<b>Max</b> 399	<b>Factory setting</b> 0
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**r4694[0...19] SMI spare part data backup motor order number**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
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	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
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<b>p4700[0...1]</b>	<b>Trace control</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>p4701</b>	<b>Measuring function, control</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 0
<b>r4705[0...1]</b>	<b>Trace status</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0	<b>Max</b> 4	<b>Factory setting</b> -
<b>r4706</b>	<b>Measuring function, status</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0	<b>Max</b> 5	<b>Factory setting</b> -
<b>p4707</b>	<b>Measurement function configuration</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>r4708[0...1]</b>	<b>Trace memory space required</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned32 P-Group: Trace and function generator Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 0
	Min -	Max -	Factory setting -

<b>r4709[0...1]</b>	<b>Trace memory space required for measuring functions</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned32 P-Group: Trace and function generator Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 0
	Min -	Max -	Factory setting -

<b>p4710[0...1]</b>	<b>Trace trigger condition</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: U, T Data type: Integer16 P-Group: Trace and function generator Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 0
	Min 1	Max 7	Factory setting 2

<b>p4711[0...5]</b>	<b>Trace trigger signal</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: U, T Data type: Unsigned32 P-Group: Trace and function generator Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 0
	Min -	Max -	Factory setting 0

<b>p4712[0...1]</b>	<b>Trace trigger threshold</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: U, T Data type: FloatingPoint32 P-Group: Trace and function generator Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 0
	Min -340.28235E36	Max 340.28235E36	Factory setting 0.00

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<b>p4713[0...1]</b>	<b>Trace tolerance band trigger threshold 1</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -340.28235E36	<b>Max</b> 340.28235E36	<b>Factory setting</b> 0.00

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<b>p4714[0...1]</b>	<b>Trace tolerance band trigger threshold 2</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -340.28235E36	<b>Max</b> 340.28235E36	<b>Factory setting</b> 0.00

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<b>p4715[0...1]</b>	<b>Trace bit mask trigger, bit mask</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0	<b>Max</b> 4294967295	<b>Factory setting</b> 0

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<b>p4716[0...1]</b>	<b>Trace, bit mask trigger, trigger condition</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0	<b>Max</b> 4294967295	<b>Factory setting</b> 0

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<b>p4717</b>	<b>Measuring function, number of averaging operations</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0

<b>p4718</b>	<b>Measuring function, number of stabilizing periods</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0
<b>r4719[0...1]</b>	<b>Trace trigger index</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p4720[0...1]</b>	<b>Trace recording cycle</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0.000 [ms]	<b>Max</b> 60000.000 [ms]	<b>Factory setting</b> 1.000 [ms]
<b>p4721[0...1]</b>	<b>Trace recording time</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0.000 [ms]	<b>Max</b> 3600000.000 [ms]	<b>Factory setting</b> 1000.000 [ms]
<b>p4722[0...1]</b>	<b>Trace trigger delay</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -3600000.000 [ms]	<b>Max</b> 3600000.000 [ms]	<b>Factory setting</b> 0.000 [ms]

<b>p4723[0...1]</b>	<b>Trace time slice cycle</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0.03125 [ms]	<b>Max</b> 4.00000 [ms]	<b>Factory setting</b> 0.12500 [ms]
<b>p4724[0...1]</b>	<b>Trace average in the time range</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0000 bin	<b>Max</b> 0001 bin	<b>Factory setting</b> 0000 bin
<b>r4725[0...1]</b>	<b>Trace, data type 1 traced</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r4726[0...1]</b>	<b>Trace, data type 2 traced</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r4727[0...1]</b>	<b>Trace, data type 3 traced</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r4728[0...1]</b>	<b>Trace, data type 4 traced</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0  <b>Factory setting</b> -
	<b>Min</b>	<b>Max</b>	
	-	-	

<b>r4729[0...1]</b>	<b>Trace number of recorded values</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0  <b>Factory setting</b> -
	<b>Min</b>	<b>Max</b>	
	-	-	

<b>p4730[0...5]</b>	<b>Trace record signal 0</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0  <b>Factory setting</b> 0
	<b>Min</b>	<b>Max</b>	
	-	-	

<b>p4731[0...5]</b>	<b>Trace record signal 1</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0  <b>Factory setting</b> 0
	<b>Min</b>	<b>Max</b>	
	-	-	

<b>p4732[0...5]</b>	<b>Trace record signal 2</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0  <b>Factory setting</b> 0
	<b>Min</b>	<b>Max</b>	
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<b>p4733[0...5]</b>	<b>Trace record signal 3</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p4734[0...5]</b>	<b>Trace record signal 4</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p4735[0...5]</b>	<b>Trace record signal 5</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p4736[0...5]</b>	<b>Trace record signal 6</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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<b>p4737[0...5]</b>	<b>Trace record signal 7</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

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**r4740[0...16383] Trace 0 trace buffer signal 0 floating point**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**r4741[0...16383] Trace 0 trace buffer signal 1 floating point**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**r4742[0...16383] Trace 0 trace buffer signal 2 floating point**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**r4743[0...16383] Trace 0 trace buffer signal 3 floating point**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**r4744[0...16383] Trace 0 trace buffer signal 4 floating point**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -



**r4745[0...16383] Trace 0 trace buffer signal 5 floating point**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
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**r4746[0...16383] Trace 0 trace buffer signal 6 floating point**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
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**r4747[0...16383] Trace 0 trace buffer signal 7 floating point**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
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**r4750[0...16383] Trace 1 trace buffer signal 0 floating point**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

**r4751[0...16383] Trace 1 trace buffer signal 1 floating point**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

**r4752[0...16383] Trace 1 trace buffer signal 2 floating point**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**r4753[0...16383] Trace 1 trace buffer signal 3 floating point**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**r4754[0...16383] Trace 1 trace buffer signal 4 floating point**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**r4755[0...16383] Trace 1 trace buffer signal 5 floating point**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**r4756[0...16383] Trace 1 trace buffer signal 6 floating point**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**r4757[0...16383] Trace 1 trace buffer signal 7 floating point**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**r4760[0...16383] Trace 0 trace buffer signal 0**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**r4761[0...16383] Trace 0 trace buffer signal 1**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**r4762[0...16383] Trace 0 trace buffer signal 2**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**r4763[0...16383] Trace 0 trace buffer signal 3**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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**r4764[0...16383] Trace 0 trace buffer signal 4**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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**r4765[0...16383] Trace 0 trace buffer signal 5**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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**r4766[0...16383] Trace 0 trace buffer signal 6**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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**r4767[0...16383] Trace 0 trace buffer signal 7**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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**r4770[0...16383] Trace 1 trace buffer signal 0**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**r4771[0...16383] Trace 1 trace buffer signal 1**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**r4772[0...16383] Trace 1 trace buffer signal 2**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**r4773[0...16383] Trace 1 trace buffer signal 3**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**r4774[0...16383] Trace 1 trace buffer signal 4**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**r4775[0...16383] Trace 1 trace buffer signal 5**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**r4776[0...16383] Trace 1 trace buffer signal 6**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

**r4777[0...16383] Trace 1 trace buffer signal 7**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

**p4780[0...1] Trace physical address signal 0**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0000 bin	1111 1111 1111 1111 1111 1111 1111 1111 bin	0000 bin

**p4781[0...1] Trace physical address signal 1**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0000 bin	1111 1111 1111 1111 1111 1111 1111 1111 bin	0000 bin

**p4782[0...1] Trace physical address signal 2**

CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0000 bin	1111 1111 1111 1111 1111 1111 1111 1111 bin	0000 bin

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<b>p4783[0...1]</b>	<b>Trace physical address signal 3</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0000 bin	<b>Max</b> 1111 1111 1111 1111 1111 1111 1111 1111 bin	<b>Factory setting</b> 0000 bin

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<b>p4784[0...1]</b>	<b>Trace physical address signal 4</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0000 bin	<b>Max</b> 1111 1111 1111 1111 1111 1111 1111 1111 bin	<b>Factory setting</b> 0000 bin

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<b>p4785[0...1]</b>	<b>Trace physical address signal 5</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0000 bin	<b>Max</b> 1111 1111 1111 1111 1111 1111 1111 1111 bin	<b>Factory setting</b> 0000 bin

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<b>p4786[0...1]</b>	<b>Trace physical address signal 6</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0000 bin	<b>Max</b> 1111 1111 1111 1111 1111 1111 1111 1111 bin	<b>Factory setting</b> 0000 bin

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<b>p4787[0...1]</b>	<b>Trace physical address signal 7</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0000 bin	<b>Max</b> 1111 1111 1111 1111 1111 1111 1111 1111 bin	<b>Factory setting</b> 0000 bin

<b>p4789[0...1]</b>	<b>Trace physical address trigger signal</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex
<b>r4790[0...1]</b>	<b>Trace, data type 5 traced</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r4791[0...1]</b>	<b>Trace, data type 6 traced</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r4792[0...1]</b>	<b>Trace, data type 7 traced</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r4793[0...1]</b>	<b>Trace, data type 8 traced</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -



<b>p4795</b>	<b>Trace memory bank changeover</b>			
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0	
	<b>Min</b> 0	<b>Max</b> 500	<b>Factory setting</b> 0	
<b>r4799</b>	<b>Trace memory location free</b>			
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0	
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -	
<b>p4800</b>	<b>Function generator control</b>			
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0	
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 0	
<b>r4805</b>	<b>Function generator status</b>			
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0	
	<b>Min</b> 0	<b>Max</b> 6	<b>Factory setting</b> -	
<b>r4806.0</b>	<b>BO: Function generator status signal</b>			
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0	
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -	

<b>p4810</b>	<b>Function generator mode</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0	<b>Max</b> 99	<b>Factory setting</b> 0

<b>p4812</b>	<b>Function generator physical address</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0	<b>Max</b> 4294967295	<b>Factory setting</b> 0

<b>p4813</b>	<b>Function generator physical address reference value</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 1.00	<b>Max</b> 1000000.00	<b>Factory setting</b> 1.00

<b>p4815[0...2]</b>	<b>Function generator drive number</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0

<b>p4816</b>	<b>Function generator output signal integer number scaling</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147483648	<b>Max</b> 2147483647	<b>Factory setting</b> 0

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<b>r4817</b>	<b>CO: Function generator output signal integer number</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r4818</b>	<b>CO: Function generator output signal</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

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<b>p4819</b>	<b>BI: Function generator control</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 1

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<b>p4820</b>	<b>Function generator signal shape</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 1	<b>Max</b> 5	<b>Factory setting</b> 1

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<b>p4821</b>	<b>Function generator period</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0.00 [ms]	<b>Max</b> 60000.00 [ms]	<b>Factory setting</b> 1000.00 [ms]

<b>p4822</b>	<b>Function generator pulse width</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0.00 [ms]	<b>Max</b> 60000.00 [ms]	<b>Factory setting</b> 500.00 [ms]

<b>p4823</b>	<b>Function generator bandwidth</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0.0025 [Hz]	<b>Max</b> 16000.0000 [Hz]	<b>Factory setting</b> 4000.0000 [Hz]

<b>p4824</b>	<b>Function generator amplitude</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -1600.00 [%]	<b>Max</b> 1600.00 [%]	<b>Factory setting</b> 5.00 [%]

<b>p4825</b>	<b>Function generator 2nd amplitude</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -1600.00 [%]	<b>Max</b> 1600.00 [%]	<b>Factory setting</b> 7.00 [%]

<b>p4826</b>	<b>Function generator offset</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -1600.00 [%]	<b>Max</b> 1600.00 [%]	<b>Factory setting</b> 0.00 [%]

<b>p4827</b>	<b>Function generator ramp-up time to offset</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0.00 [ms]	<b>Max</b> 100000.00 [ms]	<b>Factory setting</b> 32.00 [ms]
<b>p4828</b>	<b>Function generator lower limit</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -10000.00 [%]	<b>Max</b> 0.00 [%]	<b>Factory setting</b> -100.00 [%]
<b>p4829</b>	<b>Function generator upper limit</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0.00 [%]	<b>Max</b> 10000.00 [%]	<b>Factory setting</b> 100.00 [%]
<b>p4830</b>	<b>Function generator time slice cycle</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0.03125 [ms]	<b>Max</b> 2.00000 [ms]	<b>Factory setting</b> 0.12500 [ms]
<b>p4831</b>	<b>Function generator amplitude scaling</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0.00000 [%]	<b>Max</b> 200.00000 [%]	<b>Factory setting</b> 100.00000 [%]

<b>p4832[0...2]</b>	<b>Function generator amplitude scaling</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -340.28235E36 [%]	<b>Max</b> 340.28235E36 [%]	<b>Factory setting</b> 100.00000 [%]

<b>p4833[0...2]</b>	<b>Function generator offset scaling</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -340.28235E36 [%]	<b>Max</b> 340.28235E36 [%]	<b>Factory setting</b> 100.00000 [%]

<b>r4834[0...4]</b>	<b>CO: Function generator free measurement output signal</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Trace and function generator <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>p4835[0...4]</b>	<b>Function generator free measurement function scaling</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -200.00000 [%]	<b>Max</b> 200.00000 [%]	<b>Factory setting</b> 100.00000 [%]

<b>r4899</b>	<b>Status word sequence control</b>		
TM41	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r4950</b>	<b>OA application count</b>		
All objects	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> OEM range	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	10	-

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<b>r4951</b>	<b>OA application identifier, total length</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM120, TM15, TM150, TM17, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> OEM range	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	90	-

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<b>r4951</b>	<b>OA application identifier, total length</b>		
ENC, ENC_840, HUB, TB30, TM15DI_DO, TM31	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> OEM range	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 0
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	90	-

<b>r4952</b>	<b>OA application GUID, total length</b>			
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM120, TM15, TM150, TM17, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> 0	<b>Max</b> 180	<b>Factory setting</b> -	

<b>r4952</b>	<b>OA application GUID, total length</b>			
ENC, ENC_840, HUB, TB30, TM15DI_DO, TM31	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0	
	<b>Min</b> 0	<b>Max</b> 180	<b>Factory setting</b> -	

<b>r4955[0...n]</b>	<b>OA application identifier</b>			
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM120, TM15, TM150, TM17, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> r4951 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -	



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<b>r4955[0...n]</b>	<b>OA application identifier</b>		
ENC, ENC_840, HUB, TB30, TM15DI_DO, TM31	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> r4951 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>p4956[0...n]</b>	<b>OA application activation</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM120, TM15, TM150, TM17, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> C1, T <b>Data type:</b> Integer16 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> r4950 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

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<b>p4956[0...n]</b>	<b>OA application activation</b>		
ENC, ENC_840, HUB, TB30, TM15DI_DO, TM31	<b>Can be changed:</b> C1, T <b>Data type:</b> Integer16 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> r4950 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>r4957[0...n]</b>	<b>OA application version</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM120, TM15, TM150, TM17, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> r4950 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 4294967295	<b>Factory setting</b> -

<b>r4957[0...n]</b>	<b>OA application version</b>		
ENC, ENC_840, HUB, TB30, TM15DI_DO, TM31	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> r4950 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0	<b>Max</b> 4294967295	<b>Factory setting</b> -

<b>r4958[0...n]</b>	<b>OA application interface version</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM120, TM15, TM150, TM17, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> r4950 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r4958[0...n]</b>	<b>OA application interface version</b>		
ENC, ENC_840, HUB, TB30, TM15DI_DO, TM31	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> r4950 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r4959[0...n]</b>	<b>OA application GUID</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM120, TM15, TM150, TM17, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> r4952 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r4959[0...n]</b>	<b>OA application GUID</b>		
ENC, ENC_840, HUB, TB30, TM15DI_DO, TM31	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> r4952 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r4960[0...n]</b>	<b>OA application GUID drive object</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM120, TM15, TM150, TM17, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> r4952 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r4960[0...n]</b>	<b>OA application GUID drive object</b>		
ENC, ENC_840, HUB, TB30, TM15DI_DO, TM31	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> r4952 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>p4961[0...n]</b>	<b>OA application logbook module selection</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM120, TM15, TM150, TM17, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> r4950 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0000 hex	FFFF FFFF hex	0000 hex

<b>p4961[0...n]</b>	<b>OA application logbook module selection</b>		
ENC, ENC_840, HUB, TB30, TM15DI_DO, TM31	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> r4950 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

<b>r4975</b>	<b>OA application invalid number</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r4976</b>	<b>OA application invalid identifier, total length</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r4978[0...n]</b>	<b>OA application invalid identifier</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> r4976 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r4979[0...n]</b>	<b>OA application invalid error code</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> OEM range <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> r4975 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r5000</b>	<b>CO: Spindle properties/status</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	Can be changed: - Data type: Unsigned16 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r5001</b>	<b>CO: Spindle clamp state</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 11	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r5002</b>	<b>CO: Spindle analog sensor S1 measured value</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r5003</b>	<b>CO: Spindle digital sensors status</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	Can be changed: - Data type: Unsigned16 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r5005</b>	<b>Spindle file system status</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>p5007</b>	<b>Spindle file system selection</b>		
SERVO, SERVO_840, SERVO_AC	Can be changed: T Data type: Unsigned32 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0000 0000 0000 0000 0000 0000 0000 0000 bin

<b>p5009</b>	<b>Adapt spindle file system</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 53	<b>Factory setting</b> 0
<b>r5012</b>	<b>Spindle Sensor Module properties</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p5016</b>	<b>Enable spindle commissioning</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> C2, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>p5019</b>	<b>Spindle password</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r5020</b>	<b>Spindle manufacturer</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 48	<b>Factory setting</b> -
<b>r5021[0...18]</b>	<b>Spindle order number</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r5022[0...15]</b>	<b>Spindle serial number</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r5023</b>	<b>Spindle production date</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r5032</b>	<b>Maximum spindle speed</b>		
SERVO (Lin, Spin_diag), SERVO_840 (Lin, Spin_diag), SERVO_AC (Lin, Spin_diag)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]

<b>r5032</b>	<b>Maximum spindle speed</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>r5033</b>	<b>Spindle angular commutation offset</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [°]	<b>Max</b> - [°]	<b>Factory setting</b> - [°]

<b>r5034</b>	<b>Spindle current controller sampling time maximum</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [µs]	<b>Max</b> - [µs]	<b>Factory setting</b> - [µs]



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<b>p5040</b>	<b>Spindle voltage threshold values tolerance</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [mV]	<b>Max</b> 1000.0 [mV]	<b>Factory setting</b> 0.0 [mV]

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<b>p5041[0...5]</b>	<b>Spindle voltage threshold values</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [mV]	<b>Max</b> 340.28235E36 [mV]	<b>Factory setting</b> 0.0 [mV]

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<b>p5042[0...1]</b>	<b>Spindle transition times</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [μs]	<b>Max</b> 340.28235E36 [μs]	<b>Factory setting</b> 0.0 [μs]

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<b>p5043[0...6]</b>	<b>Spindle speed limits</b>		
SERVO (Lin, Spin_diag), SERVO_840 (Lin, Spin_diag), SERVO_AC (Lin, Spin_diag)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [m/min]	<b>Max</b> 65535.0 [m/min]	<b>Factory setting</b> 0.0 [m/min]

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<b>p5043[0...6]</b>	<b>Spindle speed limits</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [rpm]	<b>Max</b> 65535.0 [rpm]	<b>Factory setting</b> 0.0 [rpm]

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<b>r5044</b>	<b>Maximum permissible spindle velocity limit</b>		
SERVO (Lin, Spin_diag), SERVO_840 (Lin, Spin_diag), SERVO_AC (Lin, Spin_diag)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1

	<b>Min</b> - [m/min]	<b>Max</b> - [m/min]	<b>Factory setting</b> - [m/min]
<b>r5044</b>	<b>Maximum permissible spindle speed limit</b>		
SERVO (Spin_diag), SERVO_840 (Spin_diag), SERVO_AC (Spin_diag)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]
<b>r5170[0...5]</b>	<b>HF phase current actual values</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_5 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]
<b>r5171</b>	<b>CO: HF damping voltage actual value</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_2 <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]
<b>r5172[0...3]</b>	<b>CO: HF temperatures</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]
<b>r5173</b>	<b>CO: HF Damping Module I2t overload</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>p5174</b>	<b>HF control word</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_REG <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin
<b>r5175[0...1]</b>	<b>HF diagnostics</b>		
SERVO, SERVO_840, SERVO_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p5250[0...n]</b>	<b>Activate cogging torque compensation</b>		
SERVO (Cog_M_comp), SERVO_840 (Cog_M_comp), SERVO_AC (Cog_M_comp)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin
<b>p5251</b>	<b>Activate cogging torque compensation learning</b>		
SERVO (Cog_M_comp), SERVO_840 (Cog_M_comp), SERVO_AC (Cog_M_comp)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin
<b>p5252</b>	<b>Cogging torque compensation table length</b>		
SERVO (Cog_M_comp), SERVO_840 (Cog_M_comp), SERVO_AC (Cog_M_comp)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned8 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 6	<b>Max</b> 12	<b>Factory setting</b> 10

<b>p5253</b>	<b>Cogging torque compensation periodicity factor</b>		
SERVO (Cog_M_comp), SERVO_840 (Cog_M_comp), SERVO_AC (Cog_M_comp)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00000	<b>Max</b> 32768.00000	<b>Factory setting</b> 1.00000

<b>r5254[0...3]</b>	<b>Cogging torque compensation diagnostics</b>		
SERVO (Cog_M_comp), SERVO_840 (Cog_M_comp), SERVO_AC (Cog_M_comp)	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r5255[0...1]</b>	<b>CO: Cogging torque compensation input/output</b>		
SERVO (Cog_M_comp, Lin), SERVO_840 (Cog_M_comp, Lin), SERVO_AC (Cog_M_comp, Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 8_1 <b>Scaling:</b> p2003	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [N]	<b>Max</b> - [N]	<b>Factory setting</b> - [N]

<b>r5255[0...1]</b>	<b>CO: Cogging torque compensation input/output</b>		
SERVO (Cog_M_comp), SERVO_840 (Cog_M_comp), SERVO_AC (Cog_M_comp)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 7_1 <b>Scaling:</b> p2003	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Nm]	<b>Max</b> - [Nm]	<b>Factory setting</b> - [Nm]

<b>p5260[0...4095]</b>	<b>Cogging torque compensation force table</b>		
SERVO (Cog_M_comp, Lin), SERVO_840 (Cog_M_comp, Lin), SERVO_AC (Cog_M_comp, Lin)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 8_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000000.000 [N]	<b>Max</b> 1000000.000 [N]	<b>Factory setting</b> 0.000 [N]

**p5260[0...4095] Cogging torque compensation torque table**

SERVO (Cog_M_comp), SERVO_840 (Cog_M_comp), SERVO_AC (Cog_M_comp)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 7_1 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> -1000000.000 [Nm]	<b>Max</b> 1000000.000 [Nm]	<b>Factory setting</b> 0.000 [Nm]

**p5401 BI: Line droop control activation**

A_INF (Line droop ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

**r5402.0...5 CO/BO: Line droop control status word**

A_INF (Line droop ctrl)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

**p5403[0...1] CI: Line droop control current signal source**

A_INF (Line droop ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> [0] 3467[0] [1] 3467[1]

**p5404[0...1] CI: Line droop control voltage signal source**

A_INF (Line droop ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> [0] 3468[0] [1] 3468[1]

**p5405 Line droop control frequency droop no-load frequency**

A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1
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	<b>Min</b> 30.00 [%]	<b>Max</b> 300.00 [%]	<b>Factory setting</b> 100.00 [%]
<b>p5406[0...1]</b>	<b>CI: Line droop control frequency droop supplementary setpoint</b>		
A_INF (Line droop ctrl, Line transf), A_INF_840 (Line droop ctrl, Line transf)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> [0] 0 [1] 5582[0]
<b>p5406[0...1]</b>	<b>CI: Line droop control frequency droop supplementary setpoint</b>		
A_INF (Line droop ctrl), A_INF_840 (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> [0] 0 [1] 0
<b>p5407</b>	<b>Line droop control frequency droop gradient</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 100.00 [%]	<b>Factory setting</b> 5.00 [%]
<b>p5408</b>	<b>CI: Line droop control frequency droop gradient dynamic</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p5409</b>	<b>Line droop control frequency droop smoothing time</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 10000.00 [ms]	<b>Factory setting</b> 150.00 [ms]

<b>r5410</b>	<b>Line droop control frequency droop output</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [Hz]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [Hz]	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [Hz]
<b>r5411[0...1]</b>	<b>Line droop control frequency droop active power</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [kW]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [kW]	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [kW]
<b>r5412</b>	<b>Line droop control line angle</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [°]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2005  <b>Max</b> - [°]	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [°]
<b>p5413</b>	<b>Line droop control additional frequency droop gradient</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -  <b>Min</b> 0.0 [%]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 10000.0 [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.0 [%]
<b>p5414</b>	<b>Line droop control additional frequency droop smoothing time</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -  <b>Min</b> 0.0 [%]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 100.0 [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 10.0 [%]
<b>p5415</b>	<b>Line droop control voltage droop no-load voltage</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> 30.00 [%]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT  <b>Max</b> 300.00 [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 100.00 [%]

<b>p5416[0...1]</b>	<b>CI: Line droop control voltage droop supplementary setpoint</b>		
A_INF (Line droop ctrl, Line transf), A_INF_840 (Line droop ctrl, Line transf)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> [0] 0 [1] 5582[1]

<b>p5416[0...1]</b>	<b>CI: Line droop control voltage droop supplementary setpoint</b>		
A_INF (Line droop ctrl), A_INF_840 (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> [0] 0 [1] 0

<b>p5417</b>	<b>Line droop control voltage droop gradient</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 100.00 [%]	<b>Factory setting</b> 5.00 [%]

<b>p5418</b>	<b>CI: Line droop control voltage droop gradient dynamic</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p5419</b>	<b>Line droop control voltage droop smoothing time</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 10000.00 [ms]	<b>Factory setting</b> 150.00 [ms]

<b>r5420</b>	<b>Line droop control voltage droop output</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1



	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]
<b>r5421[0...1] Line droop control voltage droop reactive current</b>			
A_INF (Line droop ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]
<b>r5422[0...1] Line droop control voltage droop reactive power</b>			
A_INF (Line droop ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 14_12 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [kvar]	<b>Max</b> - [kvar]	<b>Factory setting</b> - [kvar]
<b>p5423 Line droop control supplementary inductance</b>			
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -10.000 [mH]	<b>Max</b> 10.000 [mH]	<b>Factory setting</b> 0.000 [mH]
<b>p5424 Line droop control supplementary inductance smoothing time</b>			
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 100.00 [ms]	<b>Factory setting</b> 0.00 [ms]
<b>p5425[0...1] CI: Line droop control voltage control signal source</b>			
A_INF (Line droop ctrl)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> 7982 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> [0] 3468[0] [1] 3468[1]

<b>p5426</b>	<b>Line droop control voltage control P gain</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 7982
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 100.0 [%]	<b>Factory setting</b> 0.0 [%]

<b>p5427</b>	<b>Line droop control voltage control integration time</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 7982
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [ms]	<b>Max</b> 10000.0 [ms]	<b>Factory setting</b> 500.0 [ms]

<b>p5428[0...3]</b>	<b>Line droop control voltage control short circuit</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 100.00 [%]	<b>Factory setting</b> [0] 20.00 [%] [1] 0.00 [%] [2] 90.00 [%] [3] 2.00 [%]

<b>r5429</b>	<b>Line droop control voltage control output</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 7982
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]

<b>p5430</b>	<b>Modulation depth controller setpoint</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 50.0 [%]	<b>Max</b> 110.0 [%]	<b>Factory setting</b> 94.0 [%]

<b>p5431</b>	<b>Modulation depth controller dynamic response</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1

	<b>Min</b> 0.0 [ms]	<b>Max</b> 10000.0 [ms]	<b>Factory setting</b> 10.0 [ms]
<b>p5432[0...1]</b>	<b>Modulation depth controller output voltage limits</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -200.0 [V]	<b>Max</b> 200.0 [V]	<b>Factory setting</b> [0] 100.0 [V] [1] -100.0 [V]
<b>r5433</b>	<b>CO: Modulation depth controller output</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]
<b>p5434</b>	<b>Direct component controller low pass limit frequency</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [Hz]	<b>Max</b> 1.000 [Hz]	<b>Factory setting</b> 0.500 [Hz]
<b>p5435</b>	<b>Direct component controller low pass damping</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.001	<b>Max</b> 10.000	<b>Factory setting</b> 1.000
<b>p5436</b>	<b>Direct component controller P gain</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [ohm]	<b>Max</b> 10.000 [ohm]	<b>Factory setting</b> 0.020 [ohm]

<b>p5437</b>	<b>Direct component controller integration time</b>		
A_INF (Line droop ctrl)	Can be changed: U, T Data type: FloatingPoint32 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 3.500 [s]
	Min 0.000 [s]	Max 100.000 [s]	

<b>p5440</b>	<b>Harmonics controller bandpass filter activation</b>		
A_INF (Line droop ctrl)	Can be changed: U, T Data type: Unsigned16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0000 bin
	Min -	Max -	

<b>p5441[0...3]</b>	<b>Harmonics controller bandpass filter gain</b>		
A_INF (Line droop ctrl)	Can be changed: U, T Data type: FloatingPoint32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 120.00
	Min 0.00	Max 10000.00	

<b>p5442[0...3]</b>	<b>Harmonics controller bandpass filter mid-frequency</b>		
A_INF (Line droop ctrl)	Can be changed: U, T Data type: FloatingPoint32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 300.00 [Hz]
	Min 0.00 [Hz]	Max 1000.00 [Hz]	

<b>p5443</b>	<b>Harmonics controller bandpass filter gain total</b>		
A_INF (Line droop ctrl)	Can be changed: U, T Data type: FloatingPoint32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 1.00
	Min 0.00	Max 100.00	

<b>r5444[0...1]</b>	<b>Line droop control line voltage absolute value</b>		
A_INF (Line droop ctrl)	Can be changed: - Data type: FloatingPoint32 P-Group: Displays, signals Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting - [V]
	Min - [V]	Max - [V]	

<b>r5445[0...1]</b>	<b>Line droop control line voltage alpha/beta component</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]
<b>r5446[0...1]</b>	<b>Line droop control line voltage active/reactive component</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]
<b>r5447</b>	<b>CO: Line droop control line voltage absolute value</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_2 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]
<b>r5448[0...1]</b>	<b>Line droop control line current alpha/beta component</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]
<b>r5449[0...1]</b>	<b>Line droop control line current active/reactive component</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]
<b>p5451</b>	<b>BI: Current hysteresis controller operating mode</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>r5452.0...3</b>	<b>CO/BO: Current hysteresis controller sequence control status word</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>p5453[0...5]</b>	<b>Current hysteresis controller overcurrent limit</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	45.0 [%]	130.0 [%]	[0...4] 85.0 [%] [5] 115.0 [%]

<b>p5454[0...5]</b>	<b>Current hysteresis controller overcurrent hysteresis width</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	15.0 [%]	50.0 [%]	20.0 [%]

<b>p5455[0...5]</b>	<b>Current hysteresis controller overcurrent tolerance range</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	10.0 [%]	100.0 [%]	20.0 [%]

<b>p5456[0...2]</b>	<b>Current hysteresis controller configuration</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Modulation	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	[0] 1000 0000 0010 0000 bin [1] 1000 0000 0010 0000 bin [2] 1000 0000 0011 0000 bin

<b>p5457[0...2]</b>	<b>Current hysteresis controller pulse frequency changeover</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1

	<b>Min</b> 50.0 [%]	<b>Max</b> 200.0 [%]	<b>Factory setting</b> 100.0 [%]
<b>p5458[0...1] Current hysteresis controller minimum time operating state</b>			
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [s]	<b>Max</b> 3.000 [s]	<b>Factory setting</b> [0] 1.000 [s] [1] 1.000 [s]
<b>p5459[0...3] Current hysteresis controller sequence control state change</b>			
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 200.0 [%]	<b>Factory setting</b> [0] 10.0 [%] [1] 5.0 [%] [2] 70.0 [%] [3] 75.0 [%]
<b>p5460[0...n] VSM2 input line supply voltage, voltage scaler</b>			
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 100000.00 [%]	<b>Factory setting</b> 0.00 [%]
<b>r5461[0...n] CO: VSM2 input line supply voltage u1 - u2</b>			
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> 5_3 <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

<b>r5462[0...n]</b>	<b>CO: VSM2 input line supply voltage u2 - u3</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> p0150	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 5_3	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2001	<b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

<b>r5464[0...n]</b>	<b>CO: VSM2 temperature evaluation status</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> p0150	<b>Func. diagram:</b> -
	<b>P-Group:</b> Terminals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p5465[0...n]</b>	<b>VSM2 temperature evaluation sensor type</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> p0150	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 0

<b>r5466[0...n]</b>	<b>CO: VSM2 temperature KTY</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> p0150	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> 21_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2006	<b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

<b>p5467[0...n]</b>	<b>VSM2 overtemperature alarm threshold</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> p0150	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> 21_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2006	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [°C]	<b>Max</b> 301.00 [°C]	<b>Factory setting</b> 150.00 [°C]

<b>p5468[0...n]</b>	<b>VSM2 overtemperature shutdown threshold</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> p0150	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> 21_1	<b>Unit selection:</b> p0505
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2006	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [°C]	<b>Max</b> 301.00 [°C]	<b>Factory setting</b> 180.00 [°C]



<b>p5469[0...n]</b>	<b>VSM2 overtemperature hysteresis</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> 21_2 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> 1.00 [K]	<b>Max</b> 50.00 [K]	<b>Factory setting</b> 3.00 [K]
<b>p5470[0...n]</b>	<b>VSM2 10 V input CT gain</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> - <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [A]	<b>Max</b> 1000.000 [A]	<b>Factory setting</b> 1.000 [A]
<b>r5471[0...n]</b>	<b>CO: VSM2 10 V input CT 1 actual value</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> - <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]
<b>r5472[0...n]</b>	<b>CO: VSM2 10 V input CT 2 actual value</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> - <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]
<b>r5473[0...n]</b>	<b>CO: VSM2 10 V input 1 actual value</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]
<b>r5474[0...n]</b>	<b>CO: VSM2 10 V input 2 actual value</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0150 <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

<b>p5478[0...1]</b>	<b>Line droop control current limits</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> [0] 90.0 [%] [1] 123.0 [%]
	<b>Min</b> 50.0 [%]	<b>Max</b> 123.0 [%]	

<b>r5479[0...4]</b>	<b>Line droop control current permissible</b>		
A_INF (Line droop ctrl)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> - [Arms]
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	

<b>p5480</b>	<b>Transformer magnetization mode</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7990 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0
	<b>Min</b> 0	<b>Max</b> 102	

<b>p5481[0...2]</b>	<b>Transformer magnetization times</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> [0] 2.00 [s] [1] 1.00 [s] [2] 1.00 [s]
	<b>Min</b> 0.10 [s]	<b>Max</b> 100.00 [s]	

<b>r5482</b>	<b>Line synchronization status</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> -
	<b>Min</b> 0	<b>Max</b> 207	

<b>p5483</b>	<b>BI: Line circuit breaker enable</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7990 <b>Unit selection:</b> - <b>Expert list:</b> 1

	Min	Max	Factory setting
	-	-	0
<b>p5484[0...2] Magnetization transformer controller dynamics</b>			
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7993 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 1000.00 [ms]	<b>Factory setting</b> [0] 50.00 [ms] [1] 50.00 [ms] [2] 100.00 [ms]
<b>p5485[0...1] Transf magnetization voltage thresholds</b>			
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7990, 7993 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [V]	<b>Max</b> 300.0 [V]	<b>Factory setting</b> [0] 35.0 [V] [1] 3.5 [V]
<b>p5486[0...1] Transf rated voltage primary</b>			
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> C2(1, 2) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [Vrms]	<b>Max</b> 63000.00 [Vrms]	<b>Factory setting</b> 400.00 [Vrms]
<b>p5487[0...3] CI: Transf primary voltage signal source</b>			
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> [0] 5461[0] [1] 5462[0] [2] 0 [3] 0

<b>r5488[0...5]</b>	<b>CO: Transf secondary voltage transformed</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7990 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

<b>r5489</b>	<b>Transf leakage inductance identified</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [mH]	<b>Max</b> - [mH]	<b>Factory setting</b> - [mH]

<b>p5490</b>	<b>Transf leakage inductance</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> C2(1) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.001 [mH]	<b>Max</b> 1000.000 [mH]	<b>Factory setting</b> 0.100 [mH]

<b>r5491</b>	<b>Transf magnetizing inductance identified</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [mH]	<b>Max</b> - [mH]	<b>Factory setting</b> - [mH]

<b>p5492</b>	<b>Transf magnetizing inductance</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> C2(1) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.10 [mH]	<b>Max</b> 10000.00 [mH]	<b>Factory setting</b> 250.00 [mH]

<b>r5493.0...1</b>	<b>CO/BO: Line circuit breaker control signals</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7990 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p5494</b>	<b>Magnetization scaling values</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -  <b>Min</b> 90.0 [%]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 100.0 [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 100.0 [%]
<b>r5497[0...1]</b>	<b>CO: Transf secondary current</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> - [A]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2002  <b>Max</b> - [A]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [A]
<b>r5498[0...2]</b>	<b>CO: Transf secondary voltage</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> - [V]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001  <b>Max</b> - [V]	<b>Access level:</b> 3 <b>Func. diagram:</b> 7990 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [V]
<b>r5499.0...6</b>	<b>CO/BO: Line synchronization status word</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -
<b>p5500</b>	<b>Dynamic grid support configuration</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 7996, 7997 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0000 1000 bin
<b>p5501</b>	<b>BI: Dynamic grid support activation</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0

<b>r5502.0...4</b>	<b>CO/BO: Dynamic grid support status word</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>p5503[0...1]</b>	<b>CI: Dynamic grid support current signal source</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2002  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> [0] 3467[0] [1] 3467[1]

<b>p5504[0...1]</b>	<b>CI: Dynamic grid control voltage signal source</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 7996, 7999 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> [0] 3468[0] [1] 3468[1]

<b>p5505[0...3]</b>	<b>Dynamic grid support characteristic voltage values</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> 0.0 [%]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 100.0 [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> 7996 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> [0] 10.0 [%] [1] 50.0 [%] [2] 10.0 [%] [3] 50.0 [%]

<b>p5506[0...3]</b>	<b>Dynamic grid support characteristic reactive current setpoint</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> 0.0 [%]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 100.0 [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> 7996 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> [0] 20.0 [%] [1] 100.0 [%] [2] 20.0 [%] [3] 100.0 [%]

**p5507[0...3] Dynamic grid support times**

A\_INF (Dyn. grid support)

**Can be changed:** U, T**Data type:** FloatingPoint32**P-Group:** Closed-loop control**Not for motor type:** -**Min**  
0.00 [ms]**Calculated:** -**Dynamic index:** -**Units group:** -**Scaling:** -**Max**  
10000.00 [ms]**Access level:** 3**Func. diagram:** 7996, 7998, 7999**Unit selection:** -**Expert list:** 1**Factory setting**  
[0] 500.00 [ms]  
[1] 2.00 [ms]  
[2] 20.00 [ms]  
[3] 4.00 [ms]**p5508[0...1] Dynamic grid support Vdc thresholds**

A\_INF (Dyn. grid support)

**Can be changed:** U, T**Data type:** FloatingPoint32**P-Group:** Converter**Not for motor type:** -**Min**  
-200 [V]**Calculated:** -**Dynamic index:** -**Units group:** -**Scaling:** -**Max**  
0 [V]**Access level:** 3**Func. diagram:** 7997**Unit selection:** -**Expert list:** 1**Factory setting**  
[0] -50 [V]  
[1] 0 [V]**p5509[0...11] Dynamic grid support scaling values**

A\_INF (Dyn. grid support)

**Can be changed:** U, T**Data type:** FloatingPoint32**P-Group:** Closed-loop control**Not for motor type:** -**Min**  
0.10 [%]**Calculated:** -**Dynamic index:** -**Units group:** -**Scaling:** -**Max**  
200.00 [%]**Access level:** 3**Func. diagram:** 7996, 7997**Unit selection:** -**Expert list:** 1**Factory setting**  
[0] 40.00 [%]  
[1] 40.00 [%]  
[2] 4.00 [%]  
[3] 1.00 [%]  
[4] 100.00 [%]  
[5] 100.00 [%]  
[6] 1.00 [%]  
[7] 100.00 [%]  
[8] 100.00 [%]  
[9] 10.00 [%]  
[10] 5.00 [%]  
[11] 100.00 [%]**r5510[0...7] CO: Dynamic grid support output**

A\_INF (Dyn. grid support)

**Can be changed:** -**Data type:** FloatingPoint32**P-Group:** Displays, signals**Not for motor type:** -**Min**  
- [Arms]**Calculated:** -**Dynamic index:** -**Units group:** 6\_2**Scaling:** p2002**Max**  
- [Arms]**Access level:** 3**Func. diagram:** 7997**Unit selection:** p0505**Expert list:** 1**Factory setting**  
- [Arms]

<b>r5511[0...1]</b>	<b>CO: Dynamic grid support line voltage amplitude</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -  <b>Min</b> - [V]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001  <b>Max</b> - [V]	<b>Access level:</b> 3 <b>Func. diagram:</b> 7996 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [V]
<b>r5512[0...1]</b>	<b>CO: Dynamic grid support line voltage absolute value</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -  <b>Min</b> - [Vrms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_1 <b>Scaling:</b> p2001  <b>Max</b> - [Vrms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 7996, 7999 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Vrms]
<b>r5513[0...3]</b>	<b>CO: Dynamic grid support line voltage pos/neg phase-sequence system</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -  <b>Min</b> - [Vrms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_1 <b>Scaling:</b> p2001  <b>Max</b> - [Vrms]	<b>Access level:</b> 3 <b>Func. diagram:</b> 7996 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [Vrms]
<b>r5514[0...1]</b>	<b>CO: Dynamic grid support current setpoint alpha/beta</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> - [A]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2002  <b>Max</b> - [A]	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [A]
<b>r5515[0...1]</b>	<b>Dynamic grid support display active power</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [kW]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [kW]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [kW]
<b>r5516[0...1]</b>	<b>Dynamic grid support display reactive power</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -  <b>Min</b> - [kvar]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 14_12 <b>Scaling:</b> -  <b>Max</b> - [kvar]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [kvar]



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<b>p5518</b>	<b>CI: Dynamic grid support line phase angle signal source</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2005	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p5519</b>	<b>CI: Dynamic grid support line frequency signal source</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> Unsigned32 / FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> p2000	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>r5522.0...3</b>	<b>CO/BO: Dynamic grid support sequence control status word</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>p5528[0...1]</b>	<b>Dynamic grid support minimum time operating state</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0.000 [s]	3.000 [s]	[0] 1.000 [s] [1] 2.000 [s]

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<b>p5529[0...3]</b>	<b>Dynamic grid support sequence control state change</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Displays, signals	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0.0 [%]	200.0 [%]	[0] 10.0 [%] [1] 5.0 [%] [2] 65.0 [%] [3] 70.0 [%]

<b>p5540</b>	<b>Line monitoring configuration</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0010 0000 0011 bin

<b>p5541</b>	<b>BI: Line monitoring activation</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 7999
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>r5542.0...14</b>	<b>CO/BO: Line monitoring status word</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 7999
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p5543[0...3]</b>	<b>Line monitoring voltage threshold</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 7999
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 50.0 [%]	<b>Max</b> 120.0 [%]	<b>Factory setting</b> [0] 110.0 [%] [1] 88.0 [%] [2] 100.0 [%] [3] 100.0 [%]

<b>p5544[0...3]</b>	<b>Line monitoring frequency threshold</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 7999
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [Hz]	<b>Max</b> 3.0 [Hz]	<b>Factory setting</b> [0] 0.5 [Hz] [1] 0.7 [Hz] [2] 0.0 [Hz] [3] 0.0 [Hz]

<b>p5545[0...7]</b>	<b>Line monitoring times</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 7999
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 300000.00 [ms]	<b>Factory setting</b> [0] 150.00 [ms] [1] 50.00 [ms] [2] 3000.00 [ms] [3] 0.00 [ms] [4] 0.00 [ms] [5] 2000.00 [ms] [6] 100.00 [ms] [7] 60000.00 [ms]
<b>p5547[0]</b>	<b>Line monitoring frequencies</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 7999
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.01 [Hz]	<b>Max</b> 1.00 [Hz]	<b>Factory setting</b> 0.10 [Hz]
<b>p5548[0]</b>	<b>Line monitoring gains</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 7999
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -10.0	<b>Max</b> 10.0	<b>Factory setting</b> 0.1
<b>p5550[0...2]</b>	<b>Line monitoring line fault thresholds voltage characteristic</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 150.0 [%]	<b>Factory setting</b> [0] 120.0 [%] [1] 80.0 [%] [2] 5.0 [%]
<b>p5551[0...9]</b>	<b>Line monitoring HVRT time values</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1

<b>Min</b> 0.00 [s]	<b>Max</b> 1000.00 [s]	<b>Factory setting</b> [0] 0.00 [s] [1] 0.15 [s] [2] 0.70 [s] [3] 1.50 [s] [4] 3.00 [s] [5] 25.00 [s] [6] 50.00 [s] [7] 100.00 [s] [8] 200.00 [s] [9] 300.00 [s]
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<b>p5552[0...9]</b> A_INF (Dyn. grid support)	<b>Line monitoring HVRT voltage values</b> <b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> - <b>Min</b> 101.0 [%]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> - <b>Max</b> 150.0 [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 110.0 [%]
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<b>p5553[0...9]</b> A_INF (Dyn. grid support)	<b>Line monitoring LVRT time values</b> <b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> - <b>Min</b> 0.00 [s]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> - <b>Max</b> 300.00 [s]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> [0] 0.00 [s] [1] 0.15 [s] [2] 0.70 [s] [3] 1.50 [s] [4] 3.00 [s] [5] 25.00 [s] [6] 50.00 [s] [7] 100.00 [s] [8] 200.00 [s] [9] 300.00 [s]
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<b>p5554[0...9]</b> A_INF (Dyn. grid support)	<b>Line monitoring LVRT voltage values</b> <b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> - <b>Min</b> 0.0 [%]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> - <b>Max</b> 99.0 [%]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 90.0 [%]
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<b>p5555[0...2]</b>	<b>Line monitoring line fault thresholds frequency characteristic</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -20.0 [Hz]	<b>Max</b> 20.0 [Hz]	<b>Factory setting</b> [0] 0.5 [Hz] [1] -0.7 [Hz] [2] 0.2 [Hz]
<b>p5556[0...9]</b>	<b>Line monitoring HFRT time values</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Closed-loop control	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [s]	<b>Max</b> 1000.00 [s]	<b>Factory setting</b> [0] 0.00 [s] [1] 0.15 [s] [2] 0.70 [s] [3] 1.50 [s] [4] 3.00 [s] [5] 25.00 [s] [6] 50.00 [s] [7] 100.00 [s] [8] 200.00 [s] [9] 300.00 [s]
<b>p5557[0...9]</b>	<b>Line monitoring HFRT frequency values</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0 [Hz]	<b>Max</b> 20.0 [Hz]	<b>Factory setting</b> 1.5 [Hz]

<b>p5558[0...9]</b>	<b>Line monitoring LFRT time values</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> 0.00 [s]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 300.00 [s]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> [0] 0.00 [s] [1] 0.15 [s] [2] 0.70 [s] [3] 1.50 [s] [4] 3.00 [s] [5] 25.00 [s] [6] 50.00 [s] [7] 100.00 [s] [8] 200.00 [s] [9] 300.00 [s]

<b>p5559[0...9]</b>	<b>Line monitoring LFRT frequency values</b>		
A_INF (Dyn. grid support)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -  <b>Min</b> -20.0 [Hz]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 0.0 [Hz]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -2.5 [Hz]

<b>p5571</b>	<b>BI: Line PLL2 activation signal source</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 5499.5

<b>r5572.0...3</b>	<b>CO/BO: Line PLL2 status word</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>p5574[0...1]</b>	<b>CI: Line PLL2 voltage signal source</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> [0] 5488[3] [1] 5488[4]

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<b>p5580</b>	<b>Island grid black start mode</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 0

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<b>p5581[0...8]</b>	<b>Island grid times</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.10 [s]	<b>Max</b> 100.00 [s]	<b>Factory setting</b> [0] 2.00 [s] [1] 1.00 [s] [2] 60.00 [s] [3] 1.00 [s] [4] 0.10 [s] [5] 1.00 [s] [6] 60.00 [s] [7] 1.00 [s] [8] 0.10 [s]

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<b>r5582[0...1]</b>	<b>CO: Island grid synchronization setpoint control</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

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<b>p5583[0...2]</b>	<b>BI: Island grid synchronization signal sources</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> [0] 0 [1] 0 [2] 0

<b>p5584[0...2]</b>	<b>Island grid synchronization controller dynamics</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 1000.00 [ms]	<b>Factory setting</b> [0] 100.00 [ms] [1] 100.00 [ms] [2] 100.00 [ms]

<b>p5585[0...1]</b>	<b>Island grid synchronization voltage thresholds</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [V]	<b>Max</b> 300.0 [V]	<b>Factory setting</b> [0] 35.0 [V] [1] 3.5 [V]

<b>p5586[0...6]</b>	<b>Island grid scaling values</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.1 [%]	<b>Max</b> 200.0 [%]	<b>Factory setting</b> [0] 3.0 [%] [1] 0.5 [%] [2] 1.0 [%] [3] 1.0 [%] [4] 4.0 [%] [5] 0.4 [%] [6] 2.0 [%]

<b>r5600</b>	<b>Pe energy saving mode ID</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> -

<b>p5602[0...1]</b>	<b>Pe energy-saving mode pause time minimal</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 300000 [ms]	<b>Max</b> 4294967295 [ms]	<b>Factory setting</b> [0] 300000 [ms] [1] 480000 [ms]



<b>p5606[0...1]</b>	<b>Pe energy-saving mode dwell time maximum</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 4294967295 [ms]	<b>Factory setting</b> 4294967295 [ms]
<b>p5611</b>	<b>Pe energy-saving properties general</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin
<b>p5612[0...1]</b>	<b>Pe energy-saving properties mode-dependent</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> [0] 0110 bin [1] 0000 bin
<b>r5613.0...1</b>	<b>CO/BO: Pe energy-saving active/inactive</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r6311[0...1]</b>	<b>CO: Line PLL2 frequency</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [Hz]	<b>Max</b> - [Hz]	<b>Factory setting</b> - [Hz]
<b>r6313</b>	<b>CO: Line PLL2 smoothed voltage</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 5_1 <b>Scaling:</b> p2001	<b>Access level:</b> 2 <b>Func. diagram:</b> 6799, 8026 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Vrms]	<b>Max</b> - [Vrms]	<b>Factory setting</b> - [Vrms]

<b>r6314</b>	<b>CO: Line PLL2 phase angle</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2005	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [°]	<b>Max</b> - [°]	<b>Factory setting</b> - [°]

<b>r6316</b>	<b>CO: Line PLL2 line supply angle measured</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2005	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [°]	<b>Max</b> - [°]	<b>Factory setting</b> - [°]

<b>p6397</b>	<b>Motor module phase shift second system</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 0

<b>p6420[0...1]</b>	<b>Transformer phase shift</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -180.00 [°]	<b>Max</b> 179.90 [°]	<b>Factory setting</b> 0.00 [°]

<b>p6421[0...1]</b>	<b>Transformer gain adaption</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 50.000 [%]	<b>Max</b> 200.000 [%]	<b>Factory setting</b> 100.000 [%]

<b>p6422</b>	<b>Island grid black start orientation</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p6423</b>	<b>Line PLL2 dyn response</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 2.000 [%]	<b>Max</b> 500.000 [%]	<b>Factory setting</b> 20.000 [%]
<b>p6425</b>	<b>Line PLL2 voltage smoothing time</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1.000 [ms]	<b>Max</b> 5000.000 [ms]	<b>Factory setting</b> 100.000 [ms]
<b>r6440</b>	<b>Transf phase offset identified</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [°]	<b>Max</b> - [°]	<b>Factory setting</b> - [°]
<b>r6441</b>	<b>Transformer gain adaption identified</b>		
A_INF (Line transf), A_INF_840 (Line transf)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]
<b>r7000</b>	<b>Par_circuit No. of active power units</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p7001[0...n]</b>	<b>Par_circuit power units enable</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 1

<b>r7002[0...n]</b>	<b>Par_circuit status power units</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> -

<b>p7003</b>	<b>Par_circuit winding system</b>		
VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> C2(2) <b>Data type:</b> Integer16 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 0

<b>p7010</b>	<b>Par_circuit current dissymmetry alarm threshold</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 2 [%]	<b>Max</b> 100 [%]	<b>Factory setting</b> 20 [%]

<b>p7011</b>	<b>Par_circuit DC link voltage dissymmetry alarm threshold</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 2 [%]	<b>Max</b> 100 [%]	<b>Factory setting</b> 10 [%]
<b>p7015</b>	<b>Par_circuit holding brake power unit data set</b>		
VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2701, 2814 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 99	<b>Factory setting</b> 99
<b>r7020[0...n]</b>	<b>CO: Par_circuit deviation current in phase U</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 6_5 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]
<b>r7021[0...n]</b>	<b>CO: Par_circuit deviation current in phase V</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 6_5 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]

<b>r7022[0...n]</b>	<b>CO: Par_circuit deviation current in phase W</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 6_5 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]

<b>r7025</b>	<b>CO: Par_circuit max. deviation currents phase U</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_5 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]

<b>r7026</b>	<b>CO: Par_circuit max. deviation currents phase V</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_5 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]

<b>r7027</b>	<b>CO: Par_circuit max. deviation currents phase W</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_5 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]

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<b>r7030[0...n]</b>	<b>CO: Par_circuit DC link voltage deviation</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

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<b>r7031</b>	<b>CO: Par_circuit DC link voltage maximum deviation</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

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<b>p7035</b>	<b>Infeed par_circuit circulating current control operating mode</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 1

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<b>p7035[0...n]</b>	<b>Par_circuit circulating current control operating mode</b>		
VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 1

<b>p7036</b>	<b>Infeed par_cct circulating current controller proportional gain</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [%]	<b>Max</b> 1000.00000 [%]	<b>Factory setting</b> 100.00000 [%]

<b>p7036[0...n]</b>	<b>Par_circuit circulating current control proportional gain</b>		
VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00000 [ohm]	<b>Max</b> 200.00000 [ohm]	<b>Factory setting</b> 0.00000 [ohm]

<b>p7037</b>	<b>Infeed par_cct circulating current control integral time</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0 [%]	<b>Max</b> 100000.0 [%]	<b>Factory setting</b> 100.0 [%]

<b>p7037[0...n]</b>	<b>Par_circuit circulating current control integral time</b>		
VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_CON <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 2.0	<b>Max</b> 1000.0	<b>Factory setting</b> 4.0

<b>p7038</b>	<b>Infeed par_circuit circulating current control limit</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1 [%]	<b>Max</b> 100 [%]	<b>Factory setting</b> 100 [%]

<b>p7038[0...n]</b>	<b>Par_circuit circulating current control limit</b>		
VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> CALC_MOD_ALL <b>Dynamic index:</b> DDS, p0180 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1 [%]	<b>Max</b> 100 [%]	<b>Factory setting</b> 50 [%]



<b>p7040[0...n]</b>	<b>Par_circuit correction valve lockout time phase U</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -1000000.00 [μs]	<b>Max</b> 1000000.00 [μs]	<b>Factory setting</b> 0.00 [μs]
<b>p7042[0...n]</b>	<b>Par_circuit correction valve lockout time phase V</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -1000000.00 [μs]	<b>Max</b> 1000000.00 [μs]	<b>Factory setting</b> 0.00 [μs]
<b>p7044[0...n]</b>	<b>Par_circuit correction valve lockout time phase W</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Modulation <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -1000000.00 [μs]	<b>Max</b> 1000000.00 [μs]	<b>Factory setting</b> 0.00 [μs]
<b>r7050[0...n]</b>	<b>Par_circuit circulating current phase U</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 6_5 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]

<b>r7051[0...n]</b>	<b>Par_circuit circulating current phase V</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 6_5 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]

<b>r7052[0...n]</b>	<b>Par_circuit circulating current phase W</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 6_5 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]

<b>r7100[0...99]</b>	<b>Par_circuit ring buffer fault/alarm code</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r7101[0...99]</b>	<b>Par_circuit ring buffer data set number</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r7102[0...99]</b>		<b>Par_circuit ring buffer fault/alarm received</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -	
<b>r7103[0...99]</b>		<b>Par_circuit ring buffer fault/alarm gone</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -	
<b>r7200[0...n]</b>		<b>Par_circuit power unit overload I2t</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]	

<b>r7201[0...n]</b>	<b>CO: Par_circuit power unit temperatures max. inverter</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]
<b>r7202[0...n]</b>	<b>Par_circuit power unit temperatures max. depletion layer</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]
<b>r7203[0...n]</b>	<b>Par_circuit power unit temperatures max. rectifier</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

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<b>r7204[0...n]</b>	<b>Par_circuit power unit temperatures air intake</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

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<b>r7205[0...n]</b>	<b>Par_circuit power unit temperatures electronics</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

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<b>r7206[0...n]</b>	<b>Par_circuit power unit temperatures inverter 1</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

<b>r7207[0...n]</b>	<b>Par_circuit power unit temperatures inverter 2</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]
<b>r7208[0...n]</b>	<b>Par_circuit power unit temperatures inverter 3</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]
<b>r7209[0...n]</b>	<b>Par_circuit power unit temperatures inverter 4</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

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<b>r7210[0...n]</b>	<b>Par_circuit power unit temperatures inverter 5</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1

<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]
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<b>r7211[0...n]</b>	<b>Par_circuit power unit temperatures inverter 6</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1

<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]
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<b>r7212[0...n]</b>	<b>Par_circuit power unit temperatures inverter 1</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1

<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]
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<b>r7213[0...n]</b>	<b>Par_circuit power unit temperatures inverter 2</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]
<b>r7214[0...n]</b>	<b>Par_circuit power unit temperatures depletion layer 1</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]
<b>r7215[0...n]</b>	<b>Par_circuit power unit temperatures depletion layer 2</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]



<b>r7216[0...n] Par_circuit power unit temperatures depletion layer 3</b>			
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]
<b>r7217[0...n] Par_circuit power unit temperatures depletion layer 4</b>			
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]
<b>r7218[0...n] Par_circuit power unit temperatures depletion layer 5</b>			
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

<b>r7219[0...n]</b>	<b>Par_circuit power unit temperatures depletion layer 6</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

<b>r7220[0...n]</b>	<b>Infeed par_circuit absolute current value motoring permissible</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

<b>r7220[0...n]</b>	<b>CO: Par_circuit drive output current maximum</b>		
VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

<b>r7221[0...n]</b>	<b>Infeed par_circuit absolute current regenerating permissible</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

<b>r7222[0...n]</b>	<b>CO: Par_circuit absolute current actual value</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 6_2 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]

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<b>r7223[0...n]</b>	<b>CO: Par_circuit phase current actual value phase U</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 6_5 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]

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<b>r7224[0...n]</b>	<b>CO: Par_circuit phase current actual value phase V</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 6_5 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]

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<b>r7225[0...n]</b>	<b>CO: Par_circuit phase current actual value phase W</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 6_5 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]

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<b>r7226[0...n]</b>	<b>CO: Par_circuit phase current actual value phase U offset</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 6_5 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]

<b>r7227[0...n]</b>	<b>CO: Par_circuit phase current actual value phase V offset</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 6_5 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]

<b>r7228[0...n]</b>	<b>CO: Par_circuit phase current actual value phase W offset</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 6_5 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]

<b>r7229[0...n]</b>	<b>CO: Par_circuit phase current actual value sum U, V, W</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 6_5 <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [A]	<b>Max</b> - [A]	<b>Factory setting</b> - [A]

<b>r7230[0...n]</b>	<b>CO: Par_circuit DC link voltage actual value</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 5_2 <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

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<b>r7231[0...n]</b>	<b>CO: Par_circuit phase voltage actual value phase U</b>		
A_INF, A_INF_840, S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 5_3 <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

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<b>r7231[0...n]</b>	<b>CO: Par_circuit phase voltage actual value phase U</b>		
A_INF (Parallel), A_INF_840 (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 5_3 <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

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<b>r7232[0...n]</b>	<b>CO: Par_circuit phase voltage actual value phase V</b>		
A_INF, A_INF_840, S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 5_3 <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

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<b>r7232[0...n]</b>	<b>CO: Par_circuit phase voltage actual value phase V</b>		
A_INF (Parallel), A_INF_840 (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 5_3 <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

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<b>r7233[0...n]</b>	<b>CO: Par_circuit phase voltage actual value phase W</b>		
A_INF, A_INF_840, S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 5_3 <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]

<b>r7233[0...n]</b>	<b>CO: Par_circuit phase voltage actual value phase W</b>		
A_INF (Parallel), A_INF_840 (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> 5_3 <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting:</b> - [V]
	<b>Min</b> - [V]	<b>Max</b> - [V]	

<b>r7240[0...n]</b>	<b>Par_circuit gating unit status word 1</b>		
VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Displays, signals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> PDS, p0120 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> -
	<b>Min</b> -	<b>Max</b> -	

<b>r7250[0...4]</b>	<b>Par_circuit power unit rated power</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 14_6 <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> p0100 <b>Expert list:</b> 1 <b>Factory setting:</b> - [kW]
	<b>Min</b> - [kW]	<b>Max</b> - [kW]	

<b>r7251[0...4]</b>	<b>Par_circuit power unit rated current</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> - [Arms]
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	

<b>r7252[0...4]</b>	<b>Par_circuit maximum power unit current</b>		
A_INF (Parallel), A_INF_840 (Parallel), B_INF (Parallel), B_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel), VECTOR (Parallel), VECTOR_AC (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [Arms]	<b>Max</b> - [Arms]	<b>Factory setting</b> - [Arms]
<b>r7300[0...n]</b>	<b>CO: Par_circuit VSM input line voltage u1 - u2</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0140 <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]
<b>r7301[0...n]</b>	<b>CO: Par_circuit VSM input line voltage u2 - u3</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0140 <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [V]	<b>Max</b> - [V]	<b>Factory setting</b> - [V]
<b>r7305[0...n]</b>	<b>Par_circuit VSM temperature evaluation status</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Terminals <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r7306[0...n]</b>	<b>CO: Par_circuit VSM temperature KTY</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0140 <b>Units group:</b> 21_1 <b>Scaling:</b> p2006	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [°C]	<b>Max</b> - [°C]	<b>Factory setting</b> - [°C]

<b>r7310[0...n]</b>	<b>CO: Par_circuit VSM 10 V input CT1 actual value</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0140 <b>Units group:</b> - <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> - [A]
	<b>Min</b> - [A]	<b>Max</b> - [A]	

<b>r7311[0...n]</b>	<b>CO: Par_circuit VSM 10 V input CT2 actual value</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0140 <b>Units group:</b> - <b>Scaling:</b> p2002	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> - [A]
	<b>Min</b> - [A]	<b>Max</b> - [A]	

<b>r7315[0...n]</b>	<b>CO: Par_circuit VSM 10 V input 1 actual value</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0140 <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> - [V]
	<b>Min</b> - [V]	<b>Max</b> - [V]	

<b>r7316[0...n]</b>	<b>CO: Par_circuit VSM 10 V input 2 actual value</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0140 <b>Units group:</b> - <b>Scaling:</b> p2001	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> - [V]
	<b>Min</b> - [V]	<b>Max</b> - [V]	

<b>r7320[0...n]</b>	<b>Par_circuit VSM line filter capacitance phase U</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> - [μF]
	<b>Min</b> - [μF]	<b>Max</b> - [μF]	

<b>r7321[0...n]</b>	<b>Par_circuit VSM line filter capacitance phase V</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> - [μF]
	<b>Min</b> - [μF]	<b>Max</b> - [μF]	



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<b>r7322[0...n]</b>	<b>Par_circuit VSM line filter capacitance phase W</b>		
A_INF (Parallel), A_INF_840 (Parallel), S_INF (Parallel), S_INF_840 (Parallel)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Closed-loop control <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p0140 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [μF]	<b>Max</b> - [μF]	<b>Factory setting</b> - [μF]

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<b>r7758[0...19]</b>	<b>KHP Control Unit serial number</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>p7759[0...19]</b>	<b>KHP Control Unit reference serial number</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> T <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r7760</b>	<b>Write protection/know-how protection status</b>		
All objects	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>p7761</b>	<b>Write protection</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p7762</b>	<b>Write protection multi-master fieldbus system access behavior</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p7763</b>	<b>KHP OEM exception list number of indices for p7764</b>		
All objects	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 500	<b>Factory setting</b> 1

<b>p7764[0...n]</b>	<b>KHP OEM exception list</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_LINK, ENC, ENC_840, HUB, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p7763 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0

<b>p7764[0...n]</b>	<b>KHP OEM exception list</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p7763 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> [0] 7766 [1...499] 0

<b>p7765</b>	<b>KHP memory card copy protection</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>p7766[0...29]</b>	<b>KHP password input</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p7767[0...29]</b>	<b>KHP password new</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p7768[0...29]</b>	<b>KHP password confirmation</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p7769[0...20]</b>	<b>KHP memory card reference serial number</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> T <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p7770</b>	<b>NVRAM action</b>		
A_INF, A_INF_840, B_INF, B_INF_840, ENC, ENC_840, HUB, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 0

<b>p7775</b>	<b>NVRAM data backup/import/delete</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 17	<b>Factory setting</b> 0

<b>p7788</b>	<b>Power unit sign-of-life monitoring tolerance window</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 1000	<b>Factory setting</b> 10

<b>p7789</b>	<b>Power unit sign-of-life monitoring fault threshold</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Converter <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1000	<b>Factory setting</b> 1

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<b>p7820</b>	<b>DRIVE-CLiQ component component number</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0

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<b>p7821</b>	<b>DRIVE-CLiQ component parameter number</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0

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<b>p7822</b>	<b>DRIVE-CLiQ component parameter index</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0

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<b>r7823</b>	<b>DRIVE-CLiQ component read parameter value</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r7825[0...6]</b>	<b>DRIVE-CLiQ component versions</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>p7826</b>	<b>Firmware update automatic</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 1

<b>r7827</b>	<b>Firmware update progress display</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>p7828[0...1]</b>	<b>Firmware download component number</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 399	<b>Factory setting</b> 0

<b>p7829</b>	<b>Activate firmware download</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -1	<b>Max</b> 999	<b>Factory setting</b> 0

<b>p7830</b>	<b>Diagnostics telegram selection</b>		
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 0

<b>r7831[0...15]</b>	<b>Telegram diagnostics signals</b>			
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1	
	Min 0	Max 15157	Factory setting -	
<b>r7832[0...15]</b>	<b>Telegram diagnostics numerical format</b>			
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1	
	Min -1	Max 14	Factory setting -	
<b>r7833[0...15]</b>	<b>Telegram diagnostics unsigned</b>			
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1	
	Min -	Max -	Factory setting -	
<b>r7834[0...15]</b>	<b>Telegram diagnostics signed</b>			
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Integer32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1	
	Min -	Max -	Factory setting -	
<b>r7835[0...15]</b>	<b>Telegram diagnostics real</b>			
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1	
	Min -	Max -	Factory setting -	

<b>r7836[0...15]</b>	<b>Telegram diagnostics unit</b>			
ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1	
	Min -1	Max 147	Factory setting -	
<b>r7843[0...20]</b>	<b>Memory card serial number</b>			
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1	
	Min -	Max -	Factory setting -	
<b>r7844[0...2]</b>	<b>Memory card/device memory firmware version</b>			
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1	
	Min -	Max -	Factory setting -	
<b>r7850[0...23]</b>	<b>Drive object operational/not operational</b>			
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1	
	Min -32786	Max 32767	Factory setting -	
<b>p7852</b>	<b>Number of indices for r7853</b>			
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: U, T Data type: Unsigned16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1	
	Min 1	Max 200	Factory setting 1	



<b>r7853[0...n]</b>	<b>Component available/not available</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p7852 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF hex	<b>Factory setting</b> -

<b>p7857</b>	<b>Sub-boot mode</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_LINK, ENC, ENC_840, HUB, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM15, TM150, TM15DL_DO, TM17, TM31, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 1

<b>p7859[0...199]</b>	<b>Component number global</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -32786	<b>Max</b> 32767	<b>Factory setting</b> 0

<b>r7867</b>	<b>Status/configuration changes global</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r7868[0...24]</b>	<b>Configuration changes drive object reference</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r7869[0...24]</b>	<b>Status changes drive object reference</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r7870[0...7]</b>	<b>Configuration changes global</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r7871[0...10]</b>	<b>Configuration changes drive object</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r7871[0...10]</b>	<b>Configuration changes drive object</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r7871[0...10]</b>	<b>Configuration changes drive object</b>		
CU_LINK, HUB, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r7871[0...15]</b>	<b>Configuration changes drive object</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r7871[0...15]</b>	<b>Configuration changes drive object</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r7871[0...10]</b>	<b>Configuration changes drive object</b>		
TM54F_MA, TM54F_SL	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r7872[0...3]</b>	<b>Status changes drive object</b>		
All objects	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>p7900[0...23]</b>	<b>Drive objects priority</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0

<b>r7901[0...43]</b>	<b>Sampling times</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min - [µs]	Max - [µs]	Factory setting - [µs]

<b>r7903</b>	<b>Hardware sampling times still assignable</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>p8500[0...7]</b>	<b>BI: Input signal bit-serially 0</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0

<b>p8500[0...7]</b>	<b>BI: Send data transfer bit-serially 0</b>		
CU_LINK, CU_NX_840	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: 2211 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0

<b>p8501[0...21]</b>	<b>BI: Input signal bit-serially 1</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: U, T Data type: Unsigned32 / Binary P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0

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<b>p8501[0...21]</b>	<b>BI: Send data transfer bit-serially 1</b>		
CU_LINK	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2211
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	[0] 722.0
			[1] 722.1
			[2] 722.2
			[3] 722.3
			[4] 722.4
			[5] 722.5
			[6] 722.6
			[7] 722.7
			[8] 722.8
			[9] 722.9
			[10] 722.10
			[11] 722.11
			[12] 722.12
			[13] 722.13
			[14] 722.14
			[15] 722.15
			[16] 722.16
			[17] 722.17
			[18] 0
			[19] 0
			[20] 722.20
			[21] 722.21

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<b>p8501[0...21]</b>	<b>BI: Send data transfer bit-serially 1</b>		
CU_NX_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32 / Binary	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2211
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	[0] 722.0
			[1] 722.1
			[2] 722.2
			[3] 722.3
			[4...7] 0
			[8] 722.8
			[9] 722.9
			[10] 722.10
			[11] 722.11
			[12...15] 0
			[16] 722.16
			[17] 722.17
			[18...21] 0

<b>p8502</b>	<b>CI: Input signal word-serially 0</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p8502</b>	<b>CI: Send data transfer wordwise 0</b>		
CU_LINK, CU_NX_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2211 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p8503</b>	<b>CI: Input signal word-serially 1</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p8503</b>	<b>CI: Send data transfer wordwise 1</b>		
CU_LINK, CU_NX_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2211 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p8504</b>	<b>CI: Input signal word-serially 2</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p8504</b>	<b>CI: Send data transfer wordwise 2</b>		
CU_LINK, CU_NX_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2211 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p8505</b>	<b>CI: Input signal word-serially 3</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> PERCENT	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p8505</b>	<b>CI: Send data transfer wordwise 3</b>		
CU_LINK, CU_NX_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2211 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>r8510.0...7</b>	<b>BO: Output signal bit-serially 0</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r8510.0...7</b>	<b>BO: Receive data transfer bit-serially 0</b>		
CU_LINK, CU_NX_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2211 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r8511.0...21</b>	<b>BO: Output signal bit-serially 1</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r8511.0...21</b>	<b>BO: Receive data transfer bit-serially 1</b>		
CU_LINK, CU_NX_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2211 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r8512</b>	<b>CO: Output signal wordwise 0</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -  Min - [%]	Calculated: - Dynamic index: - Units group: - Scaling: PERCENT  Max - [%]	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [%]

<b>r8512</b>	<b>CO: Receive data transfer wordwise 0</b>		
CU_LINK, CU_NX_840	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 2211 Unit selection: - Expert list: 1  Factory setting -

<b>r8513</b>	<b>CO: Output signal wordwise 1</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -  Min - [%]	Calculated: - Dynamic index: - Units group: - Scaling: PERCENT  Max - [%]	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [%]

<b>r8513</b>	<b>CO: Receive data transfer wordwise 1</b>		
CU_LINK, CU_NX_840	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 2211 Unit selection: - Expert list: 1  Factory setting -

<b>r8514</b>	<b>CO: Output signal wordwise 2</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -  Min - [%]	Calculated: - Dynamic index: - Units group: - Scaling: PERCENT  Max - [%]	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [%]

<b>r8514</b>	<b>CO: Receive data transfer wordwise 2</b>		
CU_LINK, CU_NX_840	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 2211 Unit selection: - Expert list: 1  Factory setting -



<b>r8515</b>	<b>CO: Output signal wordwise 3</b>		
CU_I_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -  Min - [%]	Calculated: - Dynamic index: - Units group: - Scaling: PERCENT  Max - [%]	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1  Factory setting - [%]
<b>r8515</b>	<b>CO: Receive data transfer wordwise 3</b>		
CU_LINK, CU_NX_840	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 2 Func. diagram: 2211 Unit selection: - Expert list: 1  Factory setting -
<b>p8520[0...3]</b>	<b>Data transfer wordwise scaling</b>		
CU_LINK, CU_NX_840	Can be changed: U, T Data type: FloatingPoint32 P-Group: - Not for motor type: -  Min 0.00010	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 10000.00000	Access level: 2 Func. diagram: 2211 Unit selection: - Expert list: 1  Factory setting 1.00000
<b>p8550</b>	<b>AOP LOCAL/REMOTE</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: U, T Data type: Unsigned32 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0000 0000 0000 1001 bin
<b>r8570[0...39]</b>	<b>Macro drive object</b>		
A_INF, B_INF, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, S_INF, SERVO, SERVO_AC, TM120, TM150, TM15DI_DO, TM31, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 0  Factory setting -

<b>r8571[0...39]</b>	<b>Macro Binector Input (BI)</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 0
	Min	Max	Factory setting
	-	-	-

<b>r8572[0...39]</b>	<b>Macro Connector Inputs (CI) for speed setpoints</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 0
	Min	Max	Factory setting
	-	-	-

<b>r8573[0...39]</b>	<b>Macro Connector Inputs (CI) for torque setpoints</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 0
	Min	Max	Factory setting
	-	-	-

<b>r8585</b>	<b>Macro execution actual</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM31, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 0
	Min	Max	Factory setting
	-	-	-

<b>r8600</b>	<b>CAN device type</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r8601</b>	<b>CAN error register</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p8602</b>	<b>CAN SYNC object</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0080 hex
<b>p8603</b>	<b>CAN COB-ID Emergency Message</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex
<b>p8604[0...1]</b>	<b>CAN node guarding</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0
<b>p8606</b>	<b>CAN Producer Heartbeat Time</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 65535 [ms]	<b>Factory setting</b> 0 [ms]

<b>r8607[0...3]</b>	<b>CAN Identity Object</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	Can be changed: - Data type: Unsigned32 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting: -
	Min: -	Max: -	

<b>p8608[0...1]</b>	<b>CAN Clear Bus Off Error</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	Can be changed: U, T Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting: 0
	Min: 0	Max: 1	

<b>p8609[0...1]</b>	<b>CAN Error Behavior</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	Can be changed: T Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting: 1
	Min: 0	Max: 2	

<b>r8610[0...1]</b>	<b>CAN First Server SDO</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	Can be changed: - Data type: Unsigned32 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting: -
	Min: -	Max: -	

<b>p8611[0...82]</b>	<b>CAN Pre-defined Error Field</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	Can be changed: U, T Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting: 0000 hex
	Min: 0000 hex	Max: FFFF 1000 hex	

<b>p8620</b>	<b>CAN Node-ID</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	Can be changed: T Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: - Unit selection: - Expert list: 1 Factory setting: 126
	Min: 1	Max: 127	

<b>r8621</b>	<b>CAN Node-ID active</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p8622</b>	<b>CAN bit rate</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 7	<b>Factory setting</b> 6
<b>p8623[0...7]</b>	<b>CAN Bit Timing selection</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> 000F 7FFF hex	<b>Factory setting</b> [0] 1405 hex [1] 1605 hex [2] 1C05 hex [3] 1C0B hex [4] 1C17 hex [5] 1C3B hex [6] 0002 1C15 hex [7] 0004 1C2B hex
<b>p8630[0...2]</b>	<b>CAN virtual objects</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0
<b>p8641</b>	<b>CAN Abort Connection Option Code</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 3

<b>r8680[0...36]</b>	<b>CAN Diagnosis Hardware</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -
<b>p8684</b>	<b>CAN NMT state after booting</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -  <b>Min</b> 4	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 127	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 127
<b>p8685</b>	<b>CAN NMT states</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 129	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 127
<b>p8699</b>	<b>CAN: RPDO monitoring time</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 0 [ms]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 65535000 [ms]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0 [ms]
<b>p8700[0...1]</b>	<b>CAN Receive PDO 1</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 0000 hex	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 8000 06DF hex	<b>Access level:</b> 3 <b>Func. diagram:</b> 9204, 9206 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> [0] 8000 06DF hex [1] 00FE hex

<b>p8701[0...1]</b>	<b>CAN Receive PDO 2</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9204, 9206 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> 8000 06DF hex	<b>Factory setting</b> [0] 8000 06DF hex [1] 00FE hex
<b>p8702[0...1]</b>	<b>CAN Receive PDO 3</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9204, 9206 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> 8000 06DF hex	<b>Factory setting</b> [0] 8000 06DF hex [1] 00FE hex
<b>p8703[0...1]</b>	<b>CAN Receive PDO 4</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9204, 9206 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> 8000 06DF hex	<b>Factory setting</b> [0] 8000 06DF hex [1] 00FE hex
<b>p8704[0...1]</b>	<b>CAN Receive PDO 5</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9204 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> 8000 06DF hex	<b>Factory setting</b> [0] 8000 06DF hex [1] 00FE hex
<b>p8705[0...1]</b>	<b>CAN Receive PDO 6</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9204 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> 8000 06DF hex	<b>Factory setting</b> [0] 8000 06DF hex [1] 00FE hex

<b>p8706[0...1]</b>	<b>CAN Receive PDO 7</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9204 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> 8000 06DF hex	<b>Factory setting</b> [0] 8000 06DF hex [1] 00FE hex

<b>p8707[0...1]</b>	<b>CAN Receive PDO 8</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9204 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> 8000 06DF hex	<b>Factory setting</b> [0] 8000 06DF hex [1] 00FE hex

<b>p8710[0...3]</b>	<b>CAN Receive Mapping for RPDO 1</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9204, 9206 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

<b>p8711[0...3]</b>	<b>CAN Receive Mapping for RPDO 2</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9204, 9206 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

<b>p8712[0...3]</b>	<b>CAN Receive Mapping for RPDO 3</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9204, 9206 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex



<b>p8713[0...3]</b>	<b>CAN Receive Mapping for RPDO 4</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9204, 9206 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex
<b>p8714[0...3]</b>	<b>CAN Receive Mapping for RPDO 5</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9204 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex
<b>p8715[0...3]</b>	<b>CAN Receive Mapping for RPDO 6</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9204 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex
<b>p8716[0...3]</b>	<b>CAN Receive Mapping for RPDO 7</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9204 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex
<b>p8717[0...3]</b>	<b>CAN Receive Mapping for RPDO 8</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9204 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

<b>p8720[0...4]</b>	<b>CAN Transmit PDO 1</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9208, 9210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> C000 06DF hex	<b>Factory setting</b> [0] C000 06DF hex [1] 00FE hex [2] 0000 hex [3] 0000 hex [4] 0000 hex

<b>p8721[0...4]</b>	<b>CAN Transmit PDO 2</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9208, 9210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> C000 06DF hex	<b>Factory setting</b> [0] C000 06DF hex [1] 00FE hex [2] 0000 hex [3] 0000 hex [4] 0000 hex

<b>p8722[0...4]</b>	<b>CAN Transmit PDO 3</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9208, 9210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> C000 06DF hex	<b>Factory setting</b> [0] C000 06DF hex [1] 00FE hex [2] 0000 hex [3] 0000 hex [4] 0000 hex

<b>p8723[0...4]</b>	<b>CAN Transmit PDO 4</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9208, 9210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> C000 06DF hex	<b>Factory setting</b> [0] C000 06DF hex [1] 00FE hex [2] 0000 hex [3] 0000 hex [4] 0000 hex

<b>p8724[0...4]</b>	<b>CAN Transmit PDO 5</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9208 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> [0] C000 06DF hex [1] 00FE hex [2] 0000 hex [3] 0000 hex [4] 0000 hex
<b>p8725[0...4]</b>	<b>CAN Transmit PDO 6</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9208 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> [0] C000 06DF hex [1] 00FE hex [2] 0000 hex [3] 0000 hex [4] 0000 hex
<b>p8726[0...4]</b>	<b>CAN Transmit PDO 7</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9208 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> [0] C000 06DF hex [1] 00FE hex [2] 0000 hex [3] 0000 hex [4] 0000 hex
<b>p8727[0...4]</b>	<b>CAN Transmit PDO 8</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9208 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> [0] C000 06DF hex [1] 00FE hex [2] 0000 hex [3] 0000 hex [4] 0000 hex

<b>p8730[0...3]</b>	<b>CAN Transmit Mapping for TPDO 1</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9208, 9210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

<b>p8731[0...3]</b>	<b>CAN Transmit Mapping for TPDO 2</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9208, 9210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

<b>p8732[0...3]</b>	<b>CAN Transmit Mapping for TPDO 3</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9208, 9210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

<b>p8733[0...3]</b>	<b>CAN Transmit Mapping for TPDO 4</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9208, 9210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

<b>p8734[0...3]</b>	<b>CAN Transmit Mapping for TPDO 5</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9208 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

<b>p8735[0...3]</b>	<b>CAN Transmit Mapping for TPDO 6</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9208 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

<b>p8736[0...3]</b>	<b>CAN Transmit Mapping for TPDO 7</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9208 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex
<b>p8737[0...3]</b>	<b>CAN Transmit Mapping for TPDO 8</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 9208 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex
<b>p8740[0...23]</b>	<b>CAN channel distribution</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 8	<b>Factory setting</b> 0
<b>p8741</b>	<b>CAN PDO configuration acknowledgement</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>r8742</b>	<b>CAN number of free RPDO channels</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r8743[0...7]</b>	<b>CAN assignment drive/drive ID</b>		
CU_S120_DP (CAN), CU_S120_PN (CAN)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p8744</b>	<b>CAN PDO mapping configuration</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C2, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 9204, 9206, 9208, 9210 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 2
	<b>Min</b> 1	<b>Max</b> 2	

<b>r8750[0...15]</b>	<b>CAN mapped 16-bit receive objects</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> -
	<b>Min</b> -	<b>Max</b> -	

<b>r8751[0...15]</b>	<b>CAN mapped 16-bit transmit objects</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> -
	<b>Min</b> -	<b>Max</b> -	

<b>r8760[0...14]</b>	<b>CAN mapped 32-bit receive objects</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> -
	<b>Min</b> -	<b>Max</b> -	

<b>r8761[0...14]</b>	<b>CAN mapped 32-bit transmit objects</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> -
	<b>Min</b> -	<b>Max</b> -	

<b>r8784</b>	<b>CO: CAN status word</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 8010 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> -
	<b>Min</b> -	<b>Max</b> -	

<b>p8785</b>	<b>BI: CAN status word bit 8</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p8786</b>	<b>BI: CAN status word bit 14</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p8787</b>	<b>BI: CAN status word bit 15</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p8790</b>	<b>CAN control word - auto interconnection</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> C1(3), T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>r8795</b>	<b>CAN control word</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r8796</b>	<b>CAN Target Velocity</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r8797</b>	<b>CAN Target Torque</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p8798[0...1]</b>	<b>CAN speed conversion factor</b>		
SERVO (CAN), SERVO_AC (CAN), VECTOR (CAN), VECTOR_AC (CAN)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 4294967295	<b>Factory setting</b> 1
<b>p8811</b>	<b>SINAMICS Link project selection</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	<b>Can be changed:</b> C1(1) <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 16	<b>Max</b> 64	<b>Factory setting</b> 64
<b>p8812[0...1]</b>	<b>SINAMICS Link settings</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	<b>Can be changed:</b> C1(1) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2000	<b>Factory setting</b> [0] 1 [1] 2000
<b>p8815[0...1]</b>	<b>IF1/IF2 PZD functionality selection</b>		
CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(1) <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 2	<b>Factory setting</b> 1
<b>p8829</b>	<b>CBE20 remote controller number</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	<b>Can be changed:</b> C1(1) <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 2	<b>Factory setting</b> 1



<b>p8835</b>	<b>CBE20 firmware selection</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	<b>Can be changed:</b> C1(1) <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 99	<b>Factory setting</b> 1
<b>p8836</b>	<b>SINAMICS Link address</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	<b>Can be changed:</b> C1(1) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 64	<b>Factory setting</b> 0
<b>p8837</b>	<b>IF2 STW1.10 = 0 mode</b>		
A_INF, A_INF_840, B_INF, B_INF_840, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 2
<b>p8839[0...1]</b>	<b>PZD interface hardware assignment</b>		
CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(1) <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 99	<b>Factory setting</b> 99
<b>p8840</b>	<b>COMM BOARD monitoring time</b>		
CU_S120_DP (COMM BOARD, PROFINET), CU_S120_PN (COMM BOARD, PROFINET)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [ms]	<b>Max</b> 65535000 [ms]	<b>Factory setting</b> 20 [ms]

<b>p8841[0...239]</b>	<b>COMM BOARD send configuration data</b>		
CU_S120_DP (COMM BOARD, PROFINET), CU_S120_PN (COMM BOARD, PROFINET)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0

<b>p8842</b>	<b>Activate COMM BOARD send configuration</b>		
CU_S120_DP (COMM BOARD, PROFINET), CU_S120_PN (COMM BOARD, PROFINET)	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>r8843.0...2</b>	<b>BO: IF2 PZD state</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2410 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p8844</b>	<b>IF2 fault delay</b>		
A_INF, A_INF_840, B_INF, B_INF_840, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2410 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [s]	<b>Max</b> 100 [s]	<b>Factory setting</b> 0 [s]

<b>p8848</b>	<b>IF2 PZD sampling time</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(3) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1.00 [ms]	<b>Max</b> 16.00 [ms]	<b>Factory setting</b> 4.00 [ms]

<b>r8849[0...139]</b>	<b>COMM BOARD receive configuration data</b>		
CU_S120_DP (COMM BOARD, PROFINET), CU_S120_PN (COMM BOARD, PROFINET)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r8850[0...9]</b>	<b>CO: IF2 PZD receive word</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2491 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r8850[0...19]</b>	<b>CO: IF2 PZD receive word</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2491 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r8850[0...3]</b>	<b>CO: IF2 PZD receive word</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> Integer16  <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2485, 9204, 9206 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r8850[0...19]</b>	<b>CO: IF2 PZD receive word</b>		
SERVO, SERVO_840, SERVO_AC, TM41	<b>Can be changed:</b> - <b>Data type:</b> Integer16  <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2485, 9204, 9206 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r8850[0...4]</b>	<b>CO: IF2 PZD receive word</b>		
TB30, TM120, TM150, TM15DI_DO, TM31	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2491 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r8850[0...31]</b>	<b>CO: IF2 PZD receive word</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Integer16  <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2485, 9204, 9206 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p8851[0...9]</b>	<b>CI: IF2 PZD send word</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2493, 9210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p8851[0...24]</b>	<b>CI: IF2 PZD send word</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2493, 9210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p8851[0...11]</b>	<b>CI: IF2 PZD send word</b>		
ENC, ENC_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2487, 9208 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p8851[0...27]</b>	<b>CI: IF2 PZD send word</b>		
SERVO, SERVO_840, SERVO_AC, TM41	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2487, 9208 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p8851[0...4]</b>	<b>CI: IF2 PZD send word</b>		
TB30, TM120, TM150, TM15DI_DO, TM31	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2493, 9210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>p8851[0...31]</b>	<b>CI: IF2 PZD send word</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2487, 9208 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0
<b>r8853[0...9]</b>	<b>IF2 diagnostics PZD send</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2493 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r8853[0...24]</b>	<b>IF2 diagnostics PZD send</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2493 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r8853[0...11]</b>	<b>IF2 diagnostics PZD send</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2487, 9208, 9210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r8853[0...27]</b>	<b>IF2 diagnostics PZD send</b>		
SERVO, SERVO_840, SERVO_AC, TM41	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16  <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2487, 9208, 9210 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>r8853[0...4]</b>	<b>IF2 diagnostics PZD send</b>		
TB30, TM120, TM150, TM15DI_DO, TM31	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16  <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2493 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>r8853[0...31]</b>	<b>IF2 diagnostics PZD send</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16  <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2487, 9208, 9210 <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>r8854</b>	<b>COMM BOARD state</b>		
CU_S120_DP (COMM BOARD, PROFINET), CU_S120_PN (COMM BOARD, PROFINET)	<b>Can be changed:</b> - <b>Data type:</b> Integer16  <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> 0	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 255	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>r8858[0...39]</b>	<b>COMM BOARD read diagnostics channel</b>		
CU_S120_DP (COMM BOARD, PROFINET), CU_S120_PN (COMM BOARD, PROFINET)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16  <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -

<b>r8859[0...7]</b>	<b>COMM BOARD identification Data</b>		
CU_S120_DP (COMM BOARD, PROFINET), CU_S120_PN (COMM BOARD, PROFINET)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r8860[0...2]</b>	<b>CO: IF2 PZD receive double word</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> Integer32  <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2485, 9204, 9206 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r8860[0...18]</b>	<b>CO: IF2 PZD receive double word</b>		
SERVO, SERVO_840, SERVO_AC, TM41	<b>Can be changed:</b> - <b>Data type:</b> Integer32  <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2485, 9204, 9206 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>r8860[0...30]</b>	<b>CO: IF2 PZD receive double word</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Integer32  <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2485, 9204, 9206 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p8861[0...10]</b>	<b>CI: IF2 PZD send double word</b>		
ENC, ENC_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer32  <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> 4000H	<b>Access level:</b> 3 <b>Func. diagram:</b> 2487, 9208, 9210 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p8861[0...26]</b>	<b>CI: IF2 PZD send double word</b>		
SERVO, SERVO_840, SERVO_AC, TM41	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer32  <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> 4000H  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2487, 9208, 9210 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0

<b>p8861[0...30]</b>	<b>CI: IF2 PZD send double word</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer32  <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> - <b>Scaling:</b> 4000H  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2487, 9208, 9210 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 0

<b>r8863[0...10]</b>	<b>IF2 diagnostics PZD send double word</b>		
ENC, ENC_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2487 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> -

<b>r8863[0...26]</b>	<b>IF2 diagnostics PZD send double word</b>		
SERVO, SERVO_840, SERVO_AC, TM41	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2487 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> -

<b>r8863[0...30]</b>	<b>IF2 diagnostics PZD send double word</b>		
VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Communications <b>Not for motor type:</b> -  <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2487 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> -



<b>r8867[0...1] IF2 PZD maximum interconnected</b>			
A_INF, A_INF_840, B_INF, B_INF_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p8870[0...15] SINAMICS Link receive telegram word PZD</b>			
A_INF (PROFINET), B_INF (PROFINET), CU_S120_DP (PROFINET), CU_S120_PN (PROFINET), ENC (PROFINET), ENC_840 (PROFINET), S_INF (PROFINET), SERVO (PROFINET), TB30 (PROFINET), TM120 (PROFINET), TM15 (PROFINET), TM150 (PROFINET), TM15DI_DO (PROFINET), TM17 (PROFINET), TM31 (PROFINET), TM41 (PROFINET), VECTOR (PROFINET)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 16	<b>Factory setting</b> 0

<b>p8871[0...15]</b>		<b>SINAMICS Link send telegram word PZD</b>		
A_INF (PROFINET), B_INF (PROFINET), CU_S120_DP (PROFINET), CU_S120_PN (PROFINET), ENC (PROFINET), ENC_840 (PROFINET), S_INF (PROFINET), SERVO (PROFINET), TB30 (PROFINET), TM120 (PROFINET), TM15 (PROFINET), TM150 (PROFINET), TM15DI_DO (PROFINET), TM17 (PROFINET), TM31 (PROFINET), TM41 (PROFINET), VECTOR (PROFINET)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> 0	<b>Max</b> 16	<b>Factory setting</b> 0	

<b>p8872[0...15]</b>		<b>SINAMICS Link address receive PZD</b>		
A_INF (PROFINET), B_INF (PROFINET), CU_S120_DP (PROFINET), CU_S120_PN (PROFINET), ENC (PROFINET), ENC_840 (PROFINET), S_INF (PROFINET), SERVO (PROFINET), TB30 (PROFINET), TM120 (PROFINET), TM15 (PROFINET), TM150 (PROFINET), TM15DI_DO (PROFINET), TM17 (PROFINET), TM31 (PROFINET), TM41 (PROFINET), VECTOR (PROFINET)	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> 0	<b>Max</b> 64	<b>Factory setting</b> 0	

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<b>r8874[0...9]</b>	<b>IF2 diagnostics bus address PZD receive</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Communications	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

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<b>r8874[0...19]</b>	<b>IF2 diagnostics bus address PZD receive</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Communications	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

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<b>r8874[0...3]</b>	<b>IF2 diagnostics bus address PZD receive</b>		
ENC, ENC_840	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Communications	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

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<b>r8874[0...19]</b>	<b>IF2 diagnostics bus address PZD receive</b>		
SERVO, SERVO_840, SERVO_AC, TM41	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Communications	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

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<b>r8874[0...4]</b>	<b>IF2 diagnostics bus address PZD receive</b>		
TB30, TM120, TM150, TM15DI_DO, TM31	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Communications	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

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<b>r8874[0...31]</b>	<b>IF2 diagnostics bus address PZD receive</b>		
VECTOR, VECTOR_AC	Can be changed: -	Calculated: -	Access level: 3
	Data type: Unsigned16	Dynamic index: -	Func. diagram: -
	P-Group: Communications	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	Min	Max	Factory setting
	-	-	-

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<b>r8875[0...9]</b>	<b>IF2 diagnostics telegram offset PZD receive</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	Can be changed: - Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r8875[0...19]</b>	<b>IF2 diagnostics telegram offset PZD receive</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r8875[0...3]</b>	<b>IF2 diagnostics telegram offset PZD receive</b>		
ENC, ENC_840	Can be changed: - Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r8875[0...19]</b>	<b>IF2 diagnostics telegram offset PZD receive</b>		
SERVO, SERVO_840, SERVO_AC, TM41	Can be changed: - Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r8875[0...4]</b>	<b>IF2 diagnostics telegram offset PZD receive</b>		
TB30, TM120, TM150, TM15DI_DO, TM31	Can be changed: - Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r8875[0...31]</b>	<b>IF2 diagnostics telegram offset PZD receive</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

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<b>r8876[0...9]</b>	<b>IF2 diagnostics telegram offset PZD send</b>		
A_INF, A_INF_840, B_INF, B_INF_840, S_INF, S_INF_840	Can be changed: - Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

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<b>r8876[0...24]</b>	<b>IF2 diagnostics telegram offset PZD send</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

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<b>r8876[0...11]</b>	<b>IF2 diagnostics telegram offset PZD send</b>		
ENC, ENC_840	Can be changed: - Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

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<b>r8876[0...27]</b>	<b>IF2 diagnostics telegram offset PZD send</b>		
SERVO, SERVO_840, SERVO_AC, TM41	Can be changed: - Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

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<b>r8876[0...4]</b>	<b>IF2 diagnostics telegram offset PZD send</b>		
TB30, TM120, TM150, TM15DI_DO, TM31	Can be changed: - Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

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<b>r8876[0...31]</b>	<b>IF2 diagnostics telegram offset PZD send</b>		
VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

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<b>p8880[0...15]</b>	<b>BI: IF2 binector-connector converter status word 1</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2489 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>p8881[0...15]</b>	<b>BI: IF2 binector-connector converter status word 2</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2489 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>p8882[0...15]</b>	<b>BI: IF2 binector-connector converter status word 3</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2489 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

<b>p8883[0...15]</b>	<b>BI: IF2 binector-connector converter status word 4</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2489 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p8884[0...15]</b>	<b>BI: IF2 binector-connector converter status word 5</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2489 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0
<b>p8888[0...4]</b>	<b>IF2 invert binector-connector converter status word</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2489 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0000 0000 0000 0000 bin

<b>r8889[0...4]</b>	<b>CO: IF2 send binector-connector converter status word</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r8890.0...15</b>	<b>BO: IF2 PZD1 receive bit-serial</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2485, 2491, 9204, 9206 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r8891.0...15</b>	<b>BO: IF2 PZD2 receive bit-serial</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2485, 2491, 9204, 9206 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-



<b>r8892.0...15 BO: IF2 PZD3 receive bit-serial</b>			
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2485, 9204, 9206 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r8893.0...15 BO: IF2 PZD4 receive bit-serial</b>			
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2485, 9204, 9206 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r8894.0...15 BO: IF2 connector-binector converter binector output</b>			
A_INF, A_INF_840, B_INF, B_INF_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2485, 2491 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r8895.0...15 BO: IF2 connector-binector converter binector output</b>			
A_INF, A_INF_840, B_INF, B_INF_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2485, 2491 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>p8898[0...1]</b>	<b>IF2 invert connector-binector converter binector output</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2485, 2491 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 bin

<b>p8899[0...1]</b>	<b>CI: IF2 connector-binector converter signal source</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 / Integer16 <b>P-Group:</b> Communications <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2485, 2491 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p8900[0...239]</b>	<b>IE Name of Station</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p8901[0...3]</b>	<b>IE IP Address of Station</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0

<b>p8902[0...3]</b>	<b>IE Default Gateway of Station</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0
<b>p8903[0...3]</b>	<b>IE Subnet Mask of Station</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0
<b>p8904</b>	<b>IE DHCP mode</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 0
<b>p8905</b>	<b>IE Interface configuration</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 1 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 0
<b>p8908</b>	<b>Activate FTP</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>r8909</b>	<b>PN device ID</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r8910[0...239]</b>	<b>IE Name of Station active</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r8911[0...3]</b>	<b>IE IP Address of Station active</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r8912[0...3]</b>	<b>IE Default Gateway of Station active</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r8913[0...3]</b>	<b>IE Subnet Mask of Station active</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r8914</b>	<b>IE DHCP mode of station active</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r8915[0...5]</b>	<b>IE MAC Address of Station</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>p8920[0...239]</b>	<b>PN Name of Station</b>		
CU_S_AC_PN, CU_S120_PN	Can be changed: U, T Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>p8921[0...3]</b>	<b>PN IP address of station</b>		
CU_S_AC_PN, CU_S120_PN	Can be changed: U, T Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0
<b>p8922[0...3]</b>	<b>PN Default Gateway of Station</b>		
CU_S_AC_PN, CU_S120_PN	Can be changed: U, T Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0
<b>p8923[0...3]</b>	<b>PN Subnet Mask of Station</b>		
CU_S_AC_PN, CU_S120_PN	Can be changed: U, T Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0
<b>p8925</b>	<b>PN interface configuration</b>		
CU_S_AC_PN, CU_S120_PN	Can be changed: U, T Data type: Integer16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 3	Factory setting 0
<b>p8929</b>	<b>PN remote controller number</b>		
CU_S_AC_PN, CU_S120_PN	Can be changed: C1(1) Data type: Integer16 P-Group: Communications Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 1	Max 2	Factory setting 1

<b>r8930[0...239]</b>	<b>PN Name of Station active</b>		
CU_S_AC_PN, CU_S120_PN	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r8931[0...3]</b>	<b>PN IP Address of Station active</b>		
CU_S_AC_PN, CU_S120_PN	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r8932[0...3]</b>	<b>PN Default Gateway of Station active</b>		
CU_S_AC_PN, CU_S120_PN	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r8933[0...3]</b>	<b>PN Subnet Mask of Station active</b>		
CU_S_AC_PN, CU_S120_PN	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r8935[0...5]</b>	<b>PN MAC Address of Station</b>		
CU_S_AC_PN, CU_S120_PN	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r8936[0...1]</b>	<b>PN state cyclic connections</b>		
CU_S_AC_PN, CU_S120_PN	Can be changed: - Data type: Integer16 P-Group: - Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 13	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

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<b>r8937[0...5]</b>	<b>PN diagnostics</b>		
CU_S_AC_PN, CU_S120_PN	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

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<b>r8939</b>	<b>PN DAP ID</b>		
CU_S_AC_PN, CU_S120_PN	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

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<b>p8940[0...239]</b>	<b>CBE20 Name of Station</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	Can be changed: U, T Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

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<b>p8941[0...3]</b>	<b>CBE20 IP Address of Station</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	Can be changed: U, T Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0

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<b>p8942[0...3]</b>	<b>CBE20 Default Gateway of Station</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	Can be changed: U, T Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0

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<b>p8943[0...3]</b>	<b>CBE20 Subnet Mask of Station</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	Can be changed: U, T Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0

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<b>p8944</b>	<b>CBE20 DHCP Mode</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	Can be changed: U, T Data type: Unsigned8 P-Group: - Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 255	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0
<b>p8945</b>	<b>CBE20 interface configuration</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	Can be changed: U, T Data type: Integer16 P-Group: - Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 3	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0
<b>r8950[0...239]</b>	<b>CBE20 Name of Station active</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r8951[0...3]</b>	<b>CBE20 IP Address of Station active</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r8952[0...3]</b>	<b>CBE20 Default Gateway of Station active</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r8953[0...3]</b>	<b>CBE20 Subnet Mask of Station active</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -



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<b>r8954</b>	<b>CBE20 DHCP Mode active</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

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<b>r8955[0...5]</b>	<b>CBE20 MAC Address of Station</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

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<b>r8959</b>	<b>CBE20 DAP ID</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

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<b>r8960[0...2]</b>	<b>PN subslot controller assignment</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM150, TM15DI_DO, TM31, TM41, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 8	Factory setting -

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<b>r8961[0...3]</b>	<b>PN IP Address Remote Controller 1</b>		
CU_S_AC_PN, CU_S120_PN	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting -

<b>r8962[0...3]</b>	<b>PN IP Address Remote Controller 2</b>		
CU_S_AC_PN, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> -

<b>p8969</b>	<b>PROFIsafe wait for clock synchronization</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>r8970[0...2]</b>	<b>CBE20 subslot controller assignment</b>		
A_INF (PROFINET), B_INF (PROFINET), CU_S120_DP (PROFINET), CU_S120_PN (PROFINET), ENC (PROFINET), ENC_840 (PROFINET), S_INF (PROFINET), SERVO (PROFINET), SERVO_AC (PROFINET), TB30 (PROFINET), TM120 (PROFINET), TM15 (PROFINET), TM150 (PROFINET), TM15DI_DO (PROFINET), TM17 (PROFINET), TM31 (PROFINET), TM41 (PROFINET), VECTOR (PROFINET), VECTOR_AC (PROFINET)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 8	<b>Factory setting</b> -

<b>r8971[0...3]</b>	<b>CBE20 IP Address Remote Controller 1</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> -

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<b>r8972[0...3]</b>	<b>CBE20 IP Address Remote Controller 2</b>		
CU_S120_DP (PROFINET), CU_S120_PN (PROFINET)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> -

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<b>p9206[0...2]</b>	<b>Topology direct access</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Topology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 4294967295	<b>Factory setting</b> 0

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<b>r9207</b>	<b>Topology direct access integer value</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Topology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r9208[0...50]</b>	<b>Topology direct access string</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> Topology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>p9210</b>	<b>Flashing component number</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Topology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 499	<b>Factory setting</b> 0

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<b>p9211</b>	<b>Flash function</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Topology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -1	<b>Max</b> 1	<b>Factory setting</b> -1
<b>p9300</b>	<b>SI Motion monitoring clock cycle (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 500.00 [µs]	<b>Max</b> 25000.00 [µs]	<b>Factory setting</b> 12000.00 [µs]
<b>p9301</b>	<b>SI Motion enable safety functions (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 0000 0000 0000 0000 bin
<b>p9302</b>	<b>SI Motion axis type (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>p9305</b>	<b>SI Motion SP modulo value (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0 [°]	<b>Max</b> 737280 [°]	<b>Factory setting</b> 0 [°]

<b>p9306</b>	<b>SI Motion function specification (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 3	
<b>p9307</b>	<b>SI Motion function configuration MM</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0000 bin
	<b>Min</b> -	<b>Max</b> -	
<b>p9309</b>	<b>SI Motion behavior during pulse suppression (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0000 0000 1111 1111 bin
	<b>Min</b> -	<b>Max</b> -	
<b>p9311</b>	<b>SI Motion actual value sensing clock cycle (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.0000 [µs]
	<b>Min</b> 0.0000 [µs]	<b>Max</b> 25000.0000 [µs]	
<b>p9312</b>	<b>Select SI Motion safety functions without selection (MM)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0000 0000 0001 0000 bin
	<b>Min</b> -	<b>Max</b> -	
<b>p9313</b>	<b>SI Motion non safety-relevant measuring steps POS1 (MM)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 22000
	<b>Min</b> 0	<b>Max</b> 4294967295	

<b>p9314</b>	<b>SI Motion absolute encoder linear measuring steps (MM)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
<b>Min</b>	<b>Max</b>	<b>Factory setting</b>	
0 [nm]	4294967295 [nm]	100 [nm]	

<b>p9315</b>	<b>SI Motion coarse position value configuration (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
<b>Min</b>	<b>Max</b>	<b>Factory setting</b>	
-	-	0000 0000 0000 0000 0000 0000 0000 0000 bin	

<b>p9316</b>	<b>SI Motion encoder configuration, safety functions (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
<b>Min</b>	<b>Max</b>	<b>Factory setting</b>	
-	-	0000 bin	

<b>p9317</b>	<b>SI Motion linear scale grid division (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
<b>Min</b>	<b>Max</b>	<b>Factory setting</b>	
0.00 [nm]	250000000.00 [nm]	10000.00 [nm]	

<b>p9318</b>	<b>SI Motion encoder pulses per revolution (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
<b>Min</b>	<b>Max</b>	<b>Factory setting</b>	
0	16777215	2048	

<b>p9319</b>	<b>SI Motion fine resolution G1_XIST1 (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
<b>Min</b>	<b>Max</b>	<b>Factory setting</b>	
2	18	11	

<b>p9320</b>	<b>SI Motion spindle pitch (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.1000 [mm]	<b>Max</b> 8388.0000 [mm]	<b>Factory setting</b> 10.0000 [mm]
<b>p9321[0...7]</b>	<b>SI Motion gearbox encoder (motor)/load denom (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 2147000000	<b>Factory setting</b> 1
<b>p9322[0...7]</b>	<b>SI Motion gearbox encoder (motor)/load numerator (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 2147000000	<b>Factory setting</b> 1
<b>p9323</b>	<b>SI Motion red. coarse position value valid bits (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 16	<b>Factory setting</b> 9
<b>p9324</b>	<b>SI Motion redundant coarse pos. value fine resolution bits (MM)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -16	<b>Max</b> 16	<b>Factory setting</b> -2
<b>p9325</b>	<b>SI Motion redundant coarse pos. value relevant bits (MM)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 16	<b>Factory setting</b> 16

<b>p9326</b>	<b>SI Motion encoder assignment (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 3	<b>Factory setting</b> 1

<b>p9328[0...11]</b>	<b>SI Motion Sensor Module Node Identifier (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned8 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> 00FF hex	<b>Factory setting</b> 0000 hex

<b>p9329</b>	<b>SI Motion Gx_XIST1 coarse pos safe most significant bit (MM)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 31	<b>Factory setting</b> 14

<b>p9330</b>	<b>SI Motion standstill tolerance (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [mm]	<b>Max</b> 100.000 [mm]	<b>Factory setting</b> 1.000 [mm]

<b>p9330</b>	<b>SI Motion standstill tolerance (Motor Module)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [°]	<b>Max</b> 100.000 [°]	<b>Factory setting</b> 1.000 [°]

<b>p9331[0...3]</b>	<b>SI Motion SLS limit values (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [mm/min]	<b>Max</b> 1000000.00 [mm/min]	<b>Factory setting</b> 2000.00 [mm/min]



<b>p9331[0...3]</b>	<b>SI Motion SLS limit values (Motor Module)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 1000000.00 [rpm]	<b>Factory setting</b> 2000.00 [rpm]
<b>p9334[0...1]</b>	<b>SI Motion SLP upper limit values (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2822 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [mm]	<b>Max</b> 2147000.000 [mm]	<b>Factory setting</b> 100000.000 [mm]
<b>p9334[0...1]</b>	<b>SI Motion SLP upper limit values (Motor Module)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2822 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [°]	<b>Max</b> 2147000.000 [°]	<b>Factory setting</b> 100000.000 [°]
<b>p9335[0...1]</b>	<b>SI Motion SLP lower limit values (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2822 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [mm]	<b>Max</b> 2147000.000 [mm]	<b>Factory setting</b> -100000.000 [mm]
<b>p9335[0...1]</b>	<b>SI Motion SLP lower limit values (Motor Module)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2822 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [°]	<b>Max</b> 2147000.000 [°]	<b>Factory setting</b> -100000.000 [°]

<b>p9341</b>	<b>SI Motion encoder comparison algorithm (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 255

<b>p9342</b>	<b>SI Motion act val comparison tol (crosswise) (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0010 [mm]	<b>Max</b> 360.0000 [mm]	<b>Factory setting</b> 0.1000 [mm]

<b>p9342</b>	<b>SI Motion act val comparison tol (crosswise) (Motor Module)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0010 [°]	<b>Max</b> 360.0000 [°]	<b>Factory setting</b> 0.1000 [°]

<b>p9344</b>	<b>SI Motion actual value comparison tolerance (referencing) (MM)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0000 [mm]	<b>Max</b> 36.0000 [mm]	<b>Factory setting</b> 0.0100 [mm]

<b>p9344</b>	<b>SI Motion actual value comparison tolerance (referencing) (MM)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0000 [°]	<b>Max</b> 36.0000 [°]	<b>Factory setting</b> 0.0100 [°]

<b>p9345</b>	<b>SI Motion SSM filter time (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2860 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 100000.00 [µs]	<b>Factory setting</b> 0.00 [µs]
<b>p9346</b>	<b>SI Motion SSM velocity limit (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2860 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [mm/min]	<b>Max</b> 1000000.00 [mm/min]	<b>Factory setting</b> 20.00 [mm/min]
<b>p9346</b>	<b>SI Motion SSM velocity limit (Motor Module)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2860 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 1000000.00 [rpm]	<b>Factory setting</b> 20.00 [rpm]
<b>p9347</b>	<b>SI Motion SSM velocity hysteresis (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2860 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0010 [mm/min]	<b>Max</b> 500.0000 [mm/min]	<b>Factory setting</b> 10.0000 [mm/min]
<b>p9347</b>	<b>SI Motion SSM velocity hysteresis (Motor Module)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2860 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0010 [rpm]	<b>Max</b> 500.0000 [rpm]	<b>Factory setting</b> 10.0000 [rpm]

<b>p9348</b>	<b>SI Motion SAM actual velocity tolerance (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [mm/min]	<b>Max</b> 120000.00 [mm/min]	<b>Factory setting</b> 300.00 [mm/min]

<b>p9348</b>	<b>SI Motion SAM actual velocity tolerance (Motor Module)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 120000.00 [rpm]	<b>Factory setting</b> 300.00 [rpm]

<b>p9349</b>	<b>SI Motion slip velocity tolerance (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [mm/min]	<b>Max</b> 6000.00 [mm/min]	<b>Factory setting</b> 6.00 [mm/min]

<b>p9349</b>	<b>SI Motion slip velocity tolerance (Motor Module)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 6000.00 [rpm]	<b>Factory setting</b> 6.00 [rpm]

<b>p9351</b>	<b>SI Motion SLS changeover delay time (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2825 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 600000000.00 [µs]	<b>Factory setting</b> 100000.00 [µs]

<b>p9352</b>	<b>SI Motion transition time STOP C to SOS (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2825 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [μs]	<b>Max</b> 600000000.00 [μs]	<b>Factory setting</b> 100000.00 [μs]
<b>p9353</b>	<b>SI Motion transition time STOP D to SOS (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2825 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [μs]	<b>Max</b> 600000000.00 [μs]	<b>Factory setting</b> 100000.00 [μs]
<b>p9354</b>	<b>SI Motion transition time STOP E to SOS (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2825 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [μs]	<b>Max</b> 600000000.00 [μs]	<b>Factory setting</b> 100000.00 [μs]
<b>p9355</b>	<b>SI Motion transition time STOP F to STOP B (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2825 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [μs]	<b>Max</b> 600000000.00 [μs]	<b>Factory setting</b> 0.00 [μs]
<b>p9356</b>	<b>SI Motion pulse suppression delay time (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2825 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [μs]	<b>Max</b> 3600000000.00 [μs]	<b>Factory setting</b> 100000.00 [μs]
<b>p9357</b>	<b>SI Motion pulse suppression test time (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [μs]	<b>Max</b> 10000000.00 [μs]	<b>Factory setting</b> 100000.00 [μs]

<b>p9358</b>	<b>SI Motion acceptance test mode time limit (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 5000000.00 [µs]	<b>Max</b> 100000000.00 [µs]	<b>Factory setting</b> 40000000.00 [µs]
<b>p9360</b>	<b>SI Motion pulse suppression shutdown speed (Motor Module)</b>		
SERVO (Lin, Safety rot), SERVO_AC (Lin, Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 6000.00 [rpm]	<b>Factory setting</b> 0.00 [rpm]
<b>p9360</b>	<b>SI Motion pulse suppression shutdown velocity (Motor Module)</b>		
SERVO (Lin), SERVO, SERVO_AC (Lin), SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [mm/min]	<b>Max</b> 6000.00 [mm/min]	<b>Factory setting</b> 0.00 [mm/min]
<b>p9362[0...1]</b>	<b>SI Motion SLP stop response (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 14	<b>Factory setting</b> 2
<b>p9363[0...3]</b>	<b>SI Motion SLS stop response (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 14	<b>Factory setting</b> 2
<b>p9364</b>	<b>SI Motion SDI tolerance (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2861 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.001 [mm]	<b>Max</b> 360.000 [mm]	<b>Factory setting</b> 12.000 [mm]

<b>p9364</b>	<b>SI Motion SDI tolerance (Motor Module)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2861 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.001 [°]	<b>Max</b> 360.000 [°]	<b>Factory setting</b> 12.000 [°]
<b>p9365</b>	<b>SI Motion SDI delay time (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2861 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 600000000.00 [µs]	<b>Factory setting</b> 100000.00 [µs]
<b>p9366</b>	<b>SI Motion SDI stop response (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2861 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 14	<b>Factory setting</b> 1
<b>p9368</b>	<b>SI Motion SAM velocity limit (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [mm/min]	<b>Max</b> 1000.00 [mm/min]	<b>Factory setting</b> 0.00 [mm/min]
<b>p9368</b>	<b>SI Motion SAM velocity limit (Motor Module)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 1000.00 [rpm]	<b>Factory setting</b> 0.00 [rpm]

<b>p9370</b>	<b>SI Motion acceptance test mode (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -  <b>Min</b> 0000 hex	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 00AC hex	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0000 hex
<b>r9371</b>	<b>SI Motion acceptance test status (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -  <b>Min</b> 0000 hex	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 00AC hex	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> -
<b>p9374</b>	<b>SI Motion safe position scaling (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -  <b>Min</b> 1	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 100000	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 1000
<b>p9380</b>	<b>SI Motion pulse suppression delay bus failure (Motor Module)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -  <b>Min</b> 0.00 [µs]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 800000.00 [µs]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.00 [µs]
<b>p9381</b>	<b>SI Motion brake ramp reference value (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -  <b>Min</b> 600.0000 [mm/min]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 240000.0000 [mm/min]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 1500.0000 [mm/min]
<b>p9381</b>	<b>SI Motion brake ramp reference value (Motor Module)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -  <b>Min</b> 600.0000 [rpm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> 240000.0000 [rpm]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 1500.0000 [rpm]



<b>p9382</b>	<b>SI Motion brake ramp delay time (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 10000.00 [µs]	<b>Max</b> 99000000.00 [µs]	<b>Factory setting</b> 250000.00 [µs]
<b>p9383</b>	<b>SI Motion brake ramp monitoring time (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 500.00 [ms]	<b>Max</b> 3600000.00 [ms]	<b>Factory setting</b> 10000.00 [ms]
<b>p9385</b>	<b>SI Motion fault tolerance actual value sensing sensorless (MM)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -1	<b>Max</b> 4	<b>Factory setting</b> -1
<b>p9386</b>	<b>SI Motion delay time of the evaluation sensorless (MM)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 5.00 [ms]	<b>Max</b> 1000.00 [ms]	<b>Factory setting</b> 100.00 [ms]
<b>p9387</b>	<b>SI Motion act val sensing encoderless filter time (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 100000.00 [µs]	<b>Factory setting</b> 25000.00 [µs]
<b>p9388</b>	<b>SI Motion act val sensing encoderless min current (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 1000.00 [%]	<b>Factory setting</b> 10.00 [%]

<b>p9389</b>	<b>SI Motion voltage tolerance acceleration (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(95) Data type: FloatingPoint32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 10.00 [%]	Max 3300.00 [%]	Factory setting 100.00 [%]

<b>r9390[0...3]</b>	<b>SI Motion version safety motion monitoring (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r9398[0...1]</b>	<b>SI Motion actual checksum SI parameters (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>p9399[0...1]</b>	<b>SI Motion reference checksum SI parameters (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex

<b>r9406[0...19]</b>	<b>PS file parameter number parameter not transferred</b>		
All objects	Can be changed: - Data type: Unsigned16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r9407[0...19]</b>	<b>PS file parameter index parameter not transferred</b>		
All objects	Can be changed: - Data type: Unsigned16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

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<b>r9408[0...19]</b>	<b>PS file fault code parameter not transferred</b>		
All objects	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r9409</b>	<b>Number of parameters to be saved</b>		
All objects	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
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<b>r9450[0...29]</b>	<b>Reference value change parameter with unsuccessful calculation</b>		
A_INF, A_INF_840, B_INF, B_INF_840, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 2
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
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<b>r9451[0...29]</b>	<b>Units changeover adapted parameters</b>		
A_INF, A_INF_840, B_INF, B_INF_840, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 1
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
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<b>r9481</b>			
<b>Number of BICO interconnections</b>			
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r9482[0...n]</b>			
<b>BICO interconnections BI/CI parameters</b>			
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> r9481 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r9483[0...n]</b>	<b>BICO interconnections BO/CO parameters</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> r9481 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0

Min	Max	Factory setting
-	-	-

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<b>p9484</b>	<b>BICO interconnections search signal source</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0

Min	Max	Factory setting
0	4294967295	0

<b>r9485</b>	<b>BICO interconnections signal source search count</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r9486</b>	<b>BICO interconnections signal source search first index</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, TM54F_MA, TM54F_SL, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r9490</b>	<b>Number of BICO interconnections to other drives</b>		
All objects	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r9491[0...9]</b>	<b>BI/CI of BICO interconnections to other drives</b>		
All objects	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>r9492[0...9]</b>	<b>BO/CO of BICO interconnections to other drives</b>		
All objects	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Commands	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

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<b>p9493[0...9]</b>	<b>Reset BICO interconnections to other drives</b>		
All objects	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	15	15

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<b>p9495</b>	<b>BICO behavior for de-activated drive objects</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> -	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0	2	0

<b>p9496 BICO behavior when activating drive objects</b>			
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 0

<b>p9497 BICO interconnections to de-activated drive objects number</b>			
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0



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<b>p9498[0...29]</b>	<b>BICO BI/CI parameters to de-activated drive objects</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p9499[0...29]</b>	<b>BICO BO/CO parameters to de-activated drive objects</b>		
A_INF, A_INF_840, B_INF, B_INF_840, CU_I_840, CU_LINK, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN, ENC, ENC_840, S_INF, S_INF_840, SERVO, SERVO_840, SERVO_AC, TB30, TM120, TM15, TM150, TM15DI_DO, TM17, TM31, TM41, VECTOR, VECTOR_AC	<b>Can be changed:</b> T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Commands <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	0

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<b>p9500</b>	<b>SI Motion monitoring clock cycle (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0.50 [ms]	25.00 [ms]	12.00 [ms]

<b>p9500</b>	<b>SI Motion monitoring clock cycle (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.50 [ms]	<b>Max</b> 25.00 [ms]	<b>Factory setting</b> 12.00 [ms]

<b>p9501</b>	<b>SI Motion enable safety functions (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 0000 0000 0000 0000 bin

<b>p9501</b>	<b>SI Motion enable safety functions (Control Unit)</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 0000 0000 0000 0000 bin

<b>p9501</b>	<b>SI Motion enable safety functions (Control Unit)</b>		
SERVO, VECTOR	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 0000 0000 0000 0000 bin

<b>p9502</b>	<b>SI Motion axis type (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0

<b>p9502</b>	<b>SI Motion axis type (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
	<b>Min</b> 0	<b>Max</b> 1	
<b>p9503</b>	<b>SI Motion SCA (SN) enable (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0000 0000 0000 0000 0000 0000 0000 0000 bin
	<b>Min</b> -	<b>Max</b> -	
<b>p9503</b>	<b>SI Motion SCA (SN) enable (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0000 0000 0000 0000 0000 0000 0000 0000 bin
	<b>Min</b> -	<b>Max</b> -	
<b>p9505</b>	<b>SI Motion SCA (SN) modulo value (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0 [°]
	<b>Min</b> 0 [°]	<b>Max</b> 737280 [°]	
<b>p9505</b>	<b>SI Motion SP modulo value (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0 [°]
	<b>Min</b> 0 [°]	<b>Max</b> 737280 [°]	

<b>p9506</b>	<b>SI Motion function specification (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 3	Factory setting 0

<b>p9507</b>	<b>SI Motion function specification (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0000 bin

<b>p9509</b>	<b>SI Motion behavior during pulse suppression (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0000 0000 1111 1111 bin

<b>p9510</b>	<b>SI Motion clock-cycle synchronous PROFIBUS master</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 1	Factory setting 0

<b>p9511</b>	<b>SI Motion actual value sensing cycle clock (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(95) Data type: FloatingPoint32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0.0000 [ms]	Max 25.0000 [ms]	Factory setting 0.0000 [ms]

<b>p9512</b>	<b>Select SI Motion safety functions without selection (CU)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0000 0000 0001 0000 bin

<b>p9513</b>	<b>SI Motion non safety-relevant measuring steps POS1 (CU)</b>		
SERVO_840	Can be changed: U, T Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 4294967295	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 22000
<b>p9513</b>	<b>SI Motion non safety-relevant measuring steps POS1 (CU)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 4294967295	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 22000
<b>p9514</b>	<b>SI Motion absolute encoder linear measuring steps (CU)</b>		
SERVO_840	Can be changed: U, T Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min 0 [nm]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 4294967295 [nm]	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 100 [nm]
<b>p9514</b>	<b>SI Motion absolute encoder linear measuring steps (CU)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min 0 [nm]	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 4294967295 [nm]	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 100 [nm]
<b>p9515</b>	<b>SI Motion encoder coarse position value config (Control Unit)</b>		
SERVO_840	Can be changed: U, T Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0000 0000 0000 0000 0000 0000 0000 0000 bin

<b>p9515</b>	<b>SI Motion encoder coarse position value config (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 0000 0000 0000 0000 0000 0000 bin

<b>p9516</b>	<b>SI Motion encoder configuration safety functions (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin

<b>p9516</b>	<b>SI Motion encoder configuration safety functions (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin

<b>p9517</b>	<b>SI Motion linear scale grid division (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [nm]	<b>Max</b> 250000000.00 [nm]	<b>Factory setting</b> 10000.00 [nm]

<b>p9517</b>	<b>SI Motion linear scale grid division (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [nm]	<b>Max</b> 250000000.00 [nm]	<b>Factory setting</b> 10000.00 [nm]

<b>p9518</b>	<b>SI Motion encoder pulses per revolution (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 16777215	<b>Factory setting</b> 2048

<b>p9518</b>	<b>SI Motion encoder pulses per revolution (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 16777215	<b>Factory setting</b> 2048
<b>p9519</b>	<b>SI Motion fine resolution G1_XIST1 (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 2	<b>Max</b> 18	<b>Factory setting</b> 11
<b>p9519</b>	<b>SI Motion fine resolution G1_XIST1 (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 2	<b>Max</b> 18	<b>Factory setting</b> 11
<b>p9520</b>	<b>SI Motion spindle pitch (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.1000 [mm]	<b>Max</b> 8388.0000 [mm]	<b>Factory setting</b> 10.0000 [mm]
<b>p9520</b>	<b>SI Motion spindle pitch (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.1000 [mm]	<b>Max</b> 8388.0000 [mm]	<b>Factory setting</b> 10.0000 [mm]
<b>p9521[0...7]</b>	<b>SI Motion gearbox encoder/load denominator (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 2147000000	<b>Factory setting</b> 1

<b>p9521[0...7]</b>	<b>SI Motion gearbox enc (motor)/load denominator (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 2147000000	<b>Factory setting</b> 1

<b>p9522[0...7]</b>	<b>SI Motion gearbox encoder/load numerator (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 2147000000	<b>Factory setting</b> 1

<b>p9522[0...7]</b>	<b>SI Motion gearbox encoder (motor)/load numerator (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 2147000000	<b>Factory setting</b> 1

<b>p9523</b>	<b>SI Motion redundant coarse pos. value valid bits (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 16	<b>Factory setting</b> 9

<b>p9523</b>	<b>SI Motion redundant coarse pos. value valid bits (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 16	<b>Factory setting</b> 9

<b>p9524</b>	<b>SI Motion Redundant coarse pos. value fine resolution bits (CU)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -16	<b>Max</b> 16	<b>Factory setting</b> -2



<b>p9524</b>	<b>SI Motion Redundant coarse pos. value fine resolution bits (CU)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> -2
	<b>Min</b> -16	<b>Max</b> 16	
<b>p9525</b>	<b>SI Motion Redundant coarse pos. value relevant bits (CU)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 16
	<b>Min</b> 0	<b>Max</b> 16	
<b>p9525</b>	<b>SI Motion Redundant coarse pos. value relevant bits (CU)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 16
	<b>Min</b> 0	<b>Max</b> 16	
<b>p9526</b>	<b>SI Motion encoder assignment second channel</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 1
	<b>Min</b> 1	<b>Max</b> 3	
<b>p9526</b>	<b>SI Motion encoder assignment second channel</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 1
	<b>Min</b> 1	<b>Max</b> 3	
<b>p9529</b>	<b>SI Motion Gx_XIST1 coarse pos. safe most significant bit (CU)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> 14
	<b>Min</b> 0	<b>Max</b> 31	

<b>p9529</b>	<b>SI Motion Gx_XIST1 coarse pos. safe most significant bit (CU)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 31	<b>Factory setting</b> 14

<b>p9530</b>	<b>SI Motion standstill tolerance (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [mm]	<b>Max</b> 100.000 [mm]	<b>Factory setting</b> 1.000 [mm]

<b>p9530</b>	<b>SI Motion standstill tolerance (Control Unit)</b>		
SERVO_840 (Safety rot)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [°]	<b>Max</b> 100.000 [°]	<b>Factory setting</b> 1.000 [°]

<b>p9530</b>	<b>SI Motion standstill tolerance (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [mm]	<b>Max</b> 100.000 [mm]	<b>Factory setting</b> 1.000 [mm]

<b>p9530</b>	<b>SI Motion standstill tolerance (Control Unit)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [°]	<b>Max</b> 100.000 [°]	<b>Factory setting</b> 1.000 [°]

<b>p9531[0...3]</b>	<b>SI Motion SLS (SG) limit values (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [mm/min]	<b>Max</b> 1000000.00 [mm/min]	<b>Factory setting</b> 2000.00 [mm/min]

<b>p9531[0...3]</b>	<b>SI Motion SLS (SG) limit values (Control Unit)</b>		
SERVO_840 (Safety rot)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 1000000.00 [rpm]	<b>Factory setting</b> 2000.00 [rpm]
<b>p9531[0...3]</b>	<b>SI Motion SLS (SG) limit values (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [mm/min]	<b>Max</b> 1000000.00 [mm/min]	<b>Factory setting</b> 2000.00 [mm/min]
<b>p9531[0...3]</b>	<b>SI Motion SLS (SG) limit values (Control Unit)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 1000000.00 [rpm]	<b>Factory setting</b> 2000.00 [rpm]
<b>p9532[0...15]</b>	<b>SI Motion SLS (SG) override factor (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [%]	<b>Max</b> 100.000 [%]	<b>Factory setting</b> 100.000 [%]
<b>p9532[0...15]</b>	<b>SI Motion SLS (SG) override factor (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [%]	<b>Max</b> 100.000 [%]	<b>Factory setting</b> 100.000 [%]
<b>p9533</b>	<b>SI Motion SLS setpoint velocity limiting (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.000 [%]	<b>Max</b> 100.000 [%]	<b>Factory setting</b> 80.000 [%]

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<b>p9534[0...1]</b>	<b>SI Motion SLP (SE) upper limit values (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2822
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [mm]	<b>Max</b> 2147000.000 [mm]	<b>Factory setting</b> 100000.000 [mm]

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<b>p9534[0...1]</b>	<b>SI Motion SLP (SE) upper limit values (Control Unit)</b>		
SERVO_840 (Safety rot)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2822
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [°]	<b>Max</b> 2147000.000 [°]	<b>Factory setting</b> 100000.000 [°]

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<b>p9534[0...1]</b>	<b>SI Motion SLP (SE) upper limit values (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2822
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [mm]	<b>Max</b> 2147000.000 [mm]	<b>Factory setting</b> 100000.000 [mm]

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<b>p9534[0...1]</b>	<b>SI Motion SLP (SE) upper limit values (Control Unit)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2822
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [°]	<b>Max</b> 2147000.000 [°]	<b>Factory setting</b> 100000.000 [°]

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<b>p9535[0...1]</b>	<b>SI Motion SLP (SE) lower limit values (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2822
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [mm]	<b>Max</b> 2147000.000 [mm]	<b>Factory setting</b> -100000.000 [mm]

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<b>p9535[0...1]</b>	<b>SI Motion SLP (SE) lower limit values (Control Unit)</b>		
SERVO_840 (Safety rot)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2822
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [°]	<b>Max</b> 2147000.000 [°]	<b>Factory setting</b> -100000.000 [°]

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<b>p9535[0...1]</b>	<b>SI Motion SLP (SE) lower limit values (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2822 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [mm]	<b>Max</b> 2147000.000 [mm]	<b>Factory setting</b> -100000.000 [mm]

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<b>p9535[0...1]</b>	<b>SI Motion SLP (SE) lower limit values (Control Unit)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2822 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [°]	<b>Max</b> 2147000.000 [°]	<b>Factory setting</b> -100000.000 [°]

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<b>p9536[0...29]</b>	<b>SI Motion SCA (SN) plus cam position (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [mm]	<b>Max</b> 2147000.000 [mm]	<b>Factory setting</b> 10.000 [mm]

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<b>p9536[0...29]</b>	<b>SI Motion SCA (SN) plus cam position (Control Unit)</b>		
SERVO_840 (Safety rot)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [°]	<b>Max</b> 2147000.000 [°]	<b>Factory setting</b> 10.000 [°]

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<b>p9536[0...29]</b>	<b>SI Motion SCA (SN) plus cam position (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [mm]	<b>Max</b> 2147000.000 [mm]	<b>Factory setting</b> 10.000 [mm]

<b>p9536[0...29]</b>	<b>SI Motion SCA (SN) plus cam position (Control Unit)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [°]	<b>Max</b> 2147000.000 [°]	<b>Factory setting</b> 10.000 [°]

<b>p9537[0...29]</b>	<b>SI Motion SCA (SN) plus cam position (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [mm]	<b>Max</b> 2147000.000 [mm]	<b>Factory setting</b> -10.000 [mm]

<b>p9537[0...29]</b>	<b>SI Motion SCA (SN) plus cam position (Control Unit)</b>		
SERVO_840 (Safety rot)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [°]	<b>Max</b> 2147000.000 [°]	<b>Factory setting</b> -10.000 [°]

<b>p9537[0...29]</b>	<b>SI Motion SCA (SN) plus cam position (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [mm]	<b>Max</b> 2147000.000 [mm]	<b>Factory setting</b> -10.000 [mm]

<b>p9537[0...29]</b>	<b>SI Motion SCA (SN) plus cam position (Control Unit)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -2147000.000 [°]	<b>Max</b> 2147000.000 [°]	<b>Factory setting</b> -10.000 [°]

p9538[0...29]	SI Motion SCA (SN) cam track assignment (Control Unit)		
SERVO_840	Can be changed: U, T	Calculated: -	Access level: 3
	Data type: Unsigned32	Dynamic index: -	Func. diagram: -
	P-Group: Safety Integrated	Units group: -	Unit selection: -
	Not for motor type: -	Scaling: -	Expert list: 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	100	414	[0] 100
			[1] 101
			[2] 102
			[3] 103
			[4] 104
			[5] 105
			[6] 106
			[7] 107
			[8] 108
			[9] 109
			[10] 110
			[11] 111
			[12] 112
			[13] 113
			[14] 114
			[15] 200
			[16] 201
			[17] 202
			[18] 203
			[19] 204
			[20] 205
			[21] 206
			[22] 207
			[23] 208
			[24] 209
			[25] 210
			[26] 211
			[27] 212
			[28] 213
			[29] 214

Parameter	SI Motion SCA (SN) cam track assignment (Control Unit)	Access level: 4
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -  <b>Min</b> 100	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> [0] 100 [1] 101 [2] 102 [3] 103 [4] 104 [5] 105 [6] 106 [7] 107 [8] 108 [9] 109 [10] 110 [11] 111 [12] 112 [13] 113 [14] 114 [15] 200 [16] 201 [17] 202 [18] 203 [19] 204 [20] 205 [21] 206 [22] 207 [23] 208 [24] 209 [25] 210 [26] 211 [27] 212 [28] 213 [29] 214

Parameter	SI Motion SCA (SN) tolerance (Control Unit)	Access level: 3
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -  <b>Min</b> 0.0010 [mm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> 0.1000 [mm]



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<b>p9540</b>	<b>SI Motion SCA (SN) tolerance (Control Unit)</b>		
SERVO_840 (Safety rot)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0010 [°]	<b>Max</b> 10.0000 [°]	<b>Factory setting</b> 0.1000 [°]

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<b>p9540</b>	<b>SI Motion SCA (SN) tolerance (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0010 [mm]	<b>Max</b> 10.0000 [mm]	<b>Factory setting</b> 0.1000 [mm]

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<b>p9540</b>	<b>SI Motion SCA (SN) tolerance (Control Unit)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0010 [°]	<b>Max</b> 10.0000 [°]	<b>Factory setting</b> 0.1000 [°]

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<b>p9541</b>	<b>SI Motion encoder comparison algorithm (CU)</b>		
SERVO_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 255

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<b>p9541</b>	<b>SI Motion encoder comparison algorithm (CU)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 255

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<b>p9542</b>	<b>SI Motion act val comparison tol (crosswise) (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.0010 [mm]	<b>Max</b> 360.0000 [mm]	<b>Factory setting</b> 0.1000 [mm]

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<b>p9542</b>	<b>SI Motion act val comparison tol (crosswise) (Control Unit)</b>		
SERVO_840 (Safety rot)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.1000 [°]
	<b>Min</b> 0.0010 [°]	<b>Max</b> 360.0000 [°]	

<b>p9542</b>	<b>SI Motion act val comparison tol (crosswise) (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.1000 [mm]
	<b>Min</b> 0.0010 [mm]	<b>Max</b> 360.0000 [mm]	

<b>p9542</b>	<b>SI Motion act val comparison tol (crosswise) (Control Unit)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.1000 [°]
	<b>Min</b> 0.0010 [°]	<b>Max</b> 360.0000 [°]	

<b>p9544</b>	<b>SI Motion actual value comparison tolerance (referencing) (CU)</b>		
SERVO_840	<b>Can be changed:</b> C2(95), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.0100 [mm]
	<b>Min</b> 0.0000 [mm]	<b>Max</b> 36.0000 [mm]	

<b>p9544</b>	<b>SI Motion actual value comparison tolerance (referencing) (CU)</b>		
SERVO_840 (Safety rot)	<b>Can be changed:</b> C2(95), U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.0100 [°]
	<b>Min</b> 0.0000 [°]	<b>Max</b> 36.0000 [°]	

<b>p9544</b>	<b>SI Motion actual value comparison tolerance (referencing) (CU)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0.0100 [mm]
	<b>Min</b> 0.0000 [mm]	<b>Max</b> 36.0000 [mm]	

<b>p9544</b>	<b>SI Motion actual value comparison tolerance (referencing) (CU)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0000 [°]	<b>Max</b> 36.0000 [°]	<b>Factory setting</b> 0.0100 [°]
<b>p9545</b>	<b>SI Motion SSM (SGA n &lt; nx) filter time (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2860 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 100.00 [ms]	<b>Factory setting</b> 0.00 [ms]
<b>p9545</b>	<b>SI Motion SSM (SGA n &lt; nx) filter time (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2860 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 100.00 [ms]	<b>Factory setting</b> 0.00 [ms]
<b>p9546</b>	<b>SI Motion SSM (SGA n &lt; nx) velocity limit (CU)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2860 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [mm/min]	<b>Max</b> 1000000.00 [mm/min]	<b>Factory setting</b> 20.00 [mm/min]
<b>p9546</b>	<b>SI Motion SSM (SGA n &lt; nx) velocity limit (CU)</b>		
SERVO_840 (Safety rot)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2860 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 1000000.00 [rpm]	<b>Factory setting</b> 20.00 [rpm]
<b>p9546</b>	<b>SI Motion SSM (SGA n &lt; nx) velocity limit (CU)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2860 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [mm/min]	<b>Max</b> 1000000.00 [mm/min]	<b>Factory setting</b> 20.00 [mm/min]

<b>p9546</b>	<b>SI Motion SSM (SGA n &lt; nx) velocity limit (CU)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2860 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 1000000.00 [rpm]	<b>Factory setting</b> 20.00 [rpm]

<b>p9547</b>	<b>SI Motion SSM (SGA n &lt; nx) velocity hysteresis (CU)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2860 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0010 [mm/min]	<b>Max</b> 500.0000 [mm/min]	<b>Factory setting</b> 10.0000 [mm/min]

<b>p9547</b>	<b>SI Motion SSM (SGA n &lt; nx) velocity hysteresis (CU)</b>		
SERVO_840 (Safety rot)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2860 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0010 [rpm]	<b>Max</b> 500.0000 [rpm]	<b>Factory setting</b> 10.0000 [rpm]

<b>p9547</b>	<b>SI Motion SSM (SGA n &lt; nx) velocity hysteresis (CU)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2860 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0010 [mm/min]	<b>Max</b> 500.0000 [mm/min]	<b>Factory setting</b> 10.0000 [mm/min]

<b>p9547</b>	<b>SI Motion SSM (SGA n &lt; nx) velocity hysteresis (CU)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2860 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.0010 [rpm]	<b>Max</b> 500.0000 [rpm]	<b>Factory setting</b> 10.0000 [rpm]

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<b>p9548</b>	<b>SI Motion SAM actual velocity tolerance (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [mm/min]	<b>Max</b> 120000.00 [mm/min]	<b>Factory setting</b> 300.00 [mm/min]

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<b>p9548</b>	<b>SI Motion SAM actual velocity tolerance (Control Unit)</b>		
SERVO_840 (Safety rot)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 120000.00 [rpm]	<b>Factory setting</b> 300.00 [rpm]

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<b>p9548</b>	<b>SI Motion SAM actual velocity tolerance (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [mm/min]	<b>Max</b> 120000.00 [mm/min]	<b>Factory setting</b> 300.00 [mm/min]

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<b>p9548</b>	<b>SI Motion SAM actual velocity tolerance (Control Unit)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 120000.00 [rpm]	<b>Factory setting</b> 300.00 [rpm]

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<b>p9549</b>	<b>SI Motion slip velocity tolerance (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [mm/min]	<b>Max</b> 6000.00 [mm/min]	<b>Factory setting</b> 6.00 [mm/min]

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<b>p9549</b>	<b>SI Motion slip velocity tolerance (Control Unit)</b>		
SERVO_840 (Safety rot)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 6000.00 [rpm]	<b>Factory setting</b> 6.00 [rpm]

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<b>p9549</b>	<b>SI Motion slip velocity tolerance (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [mm/min]	<b>Max</b> 6000.00 [mm/min]	<b>Factory setting</b> 6.00 [mm/min]

<b>p9549</b>	<b>SI Motion slip velocity tolerance (Control Unit)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 6000.00 [rpm]	<b>Factory setting</b> 6.00 [rpm]

<b>p9550</b>	<b>SI Motion SGE changeover tolerance time (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 10000.00 [ms]	<b>Factory setting</b> 500.00 [ms]

<b>p9550</b>	<b>SI Motion SGE changeover tolerance time (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 10000.00 [ms]	<b>Factory setting</b> 500.00 [ms]

<b>p9551</b>	<b>SI Motion SLS (SG) changeover delay time (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2825 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 600000.00 [ms]	<b>Factory setting</b> 100.00 [ms]

<b>p9551</b>	<b>SI Motion SLS (SG) changeover delay time (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2825 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 600000.00 [ms]	<b>Factory setting</b> 100.00 [ms]

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<b>p9552</b>	<b>SI Motion transition time STOP C to SOS (SBH) (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2825
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 600000.00 [ms]	<b>Factory setting</b> 100.00 [ms]

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<b>p9552</b>	<b>SI Motion transition time STOP C to SOS (SBH) (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2825
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 600000.00 [ms]	<b>Factory setting</b> 100.00 [ms]

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<b>p9553</b>	<b>SI Motion transition time STOP D to SOS (SBH) (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2825
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 600000.00 [ms]	<b>Factory setting</b> 100.00 [ms]

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<b>p9553</b>	<b>SI Motion transition time STOP D to SOS (SBH) (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2825
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 600000.00 [ms]	<b>Factory setting</b> 100.00 [ms]

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<b>p9554</b>	<b>SI Motion transition time STOP E to SOS (SBH) (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 600000.00 [ms]	<b>Factory setting</b> 100.00 [ms]

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<b>p9554</b>	<b>SI Motion transition time STOP E to SOS (SBH) (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 600000.00 [ms]	<b>Factory setting</b> 100.00 [ms]

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<b>p9555</b>	<b>SI Motion transition time STOP F to STOP B (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2825
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 600000.00 [ms]	<b>Factory setting</b> 0.00 [ms]

<b>p9555</b>	<b>SI Motion transition time STOP F to STOP B (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2825
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 600000.00 [ms]	<b>Factory setting</b> 0.00 [ms]

<b>p9556</b>	<b>SI Motion pulse suppression delay time (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2825
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 3600000.00 [ms]	<b>Factory setting</b> 100.00 [ms]

<b>p9556</b>	<b>SI Motion pulse suppression delay time (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2825
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 3600000.00 [ms]	<b>Factory setting</b> 100.00 [ms]

<b>p9557</b>	<b>SI Motion pulse suppression test time (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 10000.00 [ms]	<b>Factory setting</b> 100.00 [ms]

<b>p9557</b>	<b>SI Motion pulse suppression test time (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 10000.00 [ms]	<b>Factory setting</b> 100.00 [ms]



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<b>p9558</b>	<b>SI Motion acceptance test mode time limit (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 5000.00 [ms]	<b>Max</b> 100000.00 [ms]	<b>Factory setting</b> 40000.00 [ms]

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<b>p9558</b>	<b>SI Motion acceptance test mode time limit (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 5000.00 [ms]	<b>Max</b> 100000.00 [ms]	<b>Factory setting</b> 40000.00 [ms]

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<b>p9559</b>	<b>SI Motion forced checking procedure timer (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [h]	<b>Max</b> 9000.00 [h]	<b>Factory setting</b> 8.00 [h]

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<b>p9560</b>	<b>SI Motion pulse suppression shutdown velocity (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [mm/min]	<b>Max</b> 6000.00 [mm/min]	<b>Factory setting</b> 0.00 [mm/min]

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<b>p9560</b>	<b>SI Motion pulse suppression shutdown speed (Control Unit)</b>		
SERVO_840 (Lin, Safety rot)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 6000.00 [rpm]	<b>Factory setting</b> 0.00 [rpm]

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<b>p9560</b>	<b>SI Motion pulse suppression shutdown velocity (Control Unit)</b>		
SERVO_840 (Lin)	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [mm/min]	<b>Max</b> 6000.00 [mm/min]	<b>Factory setting</b> 0.00 [mm/min]

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<b>p9560</b>	<b>SI Motion pulse suppression shutdown velocity (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [mm/min]	<b>Max</b> 6000.00 [mm/min]	<b>Factory setting</b> 0.00 [mm/min]

<b>p9560</b>	<b>SI Motion pulse suppression shutdown speed (Control Unit)</b>		
SERVO (Lin, Safety rot), SERVO_AC (Lin, Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 6000.00 [rpm]	<b>Factory setting</b> 0.00 [rpm]

<b>p9560</b>	<b>SI Motion pulse suppression shutdown velocity (Control Unit)</b>		
SERVO (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [mm/min]	<b>Max</b> 6000.00 [mm/min]	<b>Factory setting</b> 0.00 [mm/min]

<b>p9561</b>	<b>SI Motion SLS (SG) stop response (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 14	<b>Factory setting</b> 5

<b>p9561</b>	<b>SI Motion SLS (SG) stop response (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 14	<b>Factory setting</b> 5

<b>p9562[0...1]</b>	<b>SI Motion SLP (SE) stop response (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> C2(95), U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 2	<b>Max</b> 4	<b>Factory setting</b> 2

<b>p9562[0...1]</b>	<b>SI Motion SLP (SE) stop response (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 14	<b>Factory setting</b> 2
<b>p9563[0...3]</b>	<b>SI Motion SLS (SG)-specific stop response (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 14	<b>Factory setting</b> 2
<b>p9563[0...3]</b>	<b>SI Motion SLS (SG)-specific stop response (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 14	<b>Factory setting</b> 2
<b>p9564</b>	<b>SI Motion SDI tolerance (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 2861 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.001 [mm]	<b>Max</b> 360.000 [mm]	<b>Factory setting</b> 12.000 [mm]
<b>p9564</b>	<b>SI Motion SDI tolerance (Control Unit)</b>		
SERVO_840 (Safety rot)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 2861 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.001 [°]	<b>Max</b> 360.000 [°]	<b>Factory setting</b> 12.000 [°]
<b>p9564</b>	<b>SI Motion SDI tolerance (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2861 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.001 [mm]	<b>Max</b> 360.000 [mm]	<b>Factory setting</b> 12.000 [mm]

<b>p9564</b>	<b>SI Motion SDI tolerance (Control Unit)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2861 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.001 [°]	<b>Max</b> 360.000 [°]	<b>Factory setting</b> 12.000 [°]

<b>p9565</b>	<b>SI Motion SDI delay time (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 2861 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 600000.00 [ms]	<b>Factory setting</b> 100.00 [ms]

<b>p9565</b>	<b>SI Motion SDI delay time (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2861 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 600000.00 [ms]	<b>Factory setting</b> 100.00 [ms]

<b>p9566</b>	<b>SI Motion SDI stop response (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> 2861 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 14	<b>Factory setting</b> 1

<b>p9566</b>	<b>SI Motion SDI stop response (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2861 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 14	<b>Factory setting</b> 1

<b>p9568</b>	<b>SI Motion SAM velocity limit (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [mm/min]	<b>Max</b> 1000.00 [mm/min]	<b>Factory setting</b> 0.00 [mm/min]

<b>p9568</b>	<b>SI Motion SAM velocity limit (Control Unit)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [rpm]	<b>Max</b> 1000.00 [rpm]	<b>Factory setting</b> 0.00 [rpm]
<b>p9570</b>	<b>SI Motion acceptance test mode (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> 00AC hex	<b>Factory setting</b> 0000 hex
<b>r9571</b>	<b>SI Motion acceptance test status (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> 00AC hex	<b>Factory setting</b> -
<b>p9572</b>	<b>SI Motion reference position (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -737280.000 [mm]	<b>Max</b> 737280.000 [mm]	<b>Factory setting</b> 0.000 [mm]
<b>p9572</b>	<b>SI Motion reference position (Control Unit)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -737280.000 [°]	<b>Max</b> 737280.000 [°]	<b>Factory setting</b> 0.000 [°]

<b>p9573</b>	<b>SI Motion accept reference position (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 122	<b>Factory setting</b> 0

<b>p9574</b>	<b>SI Motion safe position scaling (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1	<b>Max</b> 100000	<b>Factory setting</b> 1000

<b>p9580</b>	<b>SI Motion pulse suppression delay bus failure (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 800.00 [ms]	<b>Factory setting</b> 0.00 [ms]

<b>p9580</b>	<b>SI Motion pulse suppression delay bus failure (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 800.00 [ms]	<b>Factory setting</b> 0.00 [ms]

<b>p9581</b>	<b>SI Motion brake ramp reference value (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 600.0000 [mm/min]	<b>Max</b> 240000.0000 [mm/min]	<b>Factory setting</b> 1500.0000 [mm/min]

<b>p9581</b>	<b>SI Motion brake ramp reference value (Control Unit)</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 600.0000 [rpm]	<b>Max</b> 240000.0000 [rpm]	<b>Factory setting</b> 1500.0000 [rpm]

<b>p9582</b>	<b>SI Motion brake ramp delay time (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 10.00 [ms]	<b>Max</b> 99000.00 [ms]	<b>Factory setting</b> 250.00 [ms]
<b>p9583</b>	<b>SI Motion brake ramp monitoring time (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.50 [s]	<b>Max</b> 3600.00 [s]	<b>Factory setting</b> 10.00 [s]
<b>p9585</b>	<b>SI Motion fault tolerance actual value sensing sensorless (CU)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -1	<b>Max</b> 4	<b>Factory setting</b> -1
<b>p9586</b>	<b>SI Motion delay time of the evaluation sensorless (CU)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 5.00 [ms]	<b>Max</b> 1000.00 [ms]	<b>Factory setting</b> 100.00 [ms]
<b>p9587</b>	<b>SI Motion act val sensing sensorless filter time (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 100.00 [ms]	<b>Factory setting</b> 25.00 [ms]
<b>p9587</b>	<b>SI Motion act val sensing sensorless filter time (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 100.00 [ms]	<b>Factory setting</b> 25.00 [ms]

<b>p9588</b>	<b>SI Motion act val sensing sensorless min current (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 1000.00 [%]	<b>Factory setting</b> 10.00 [%]

<b>p9588</b>	<b>SI Motion act val sensing sensorless min current (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [%]	<b>Max</b> 1000.00 [%]	<b>Factory setting</b> 10.00 [%]

<b>p9589</b>	<b>SI Motion voltage tolerance acceleration (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 10.00 [%]	<b>Max</b> 3300.00 [%]	<b>Factory setting</b> 100.00 [%]

<b>p9589</b>	<b>SI Motion voltage tolerance acceleration (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 10.00 [%]	<b>Max</b> 3300.00 [%]	<b>Factory setting</b> 100.00 [%]

<b>r9590[0...3]</b>	<b>SI Motion version safety motion monitoring (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p9601</b>	<b>SI enable, functions integrated in the drive (Control Unit)</b>		
SERVO_840	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin



<b>p9601</b>	<b>SI enable, functions integrated in the drive (Control Unit)</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 bin
<b>p9601</b>	<b>SI enable, functions integrated in the drive (Control Unit)</b>		
SERVO, VECTOR	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 bin
<b>p9602</b>	<b>SI enable Safe Brake Control (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2814 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>p9610</b>	<b>SI PROFIsafe address (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFE hex	<b>Factory setting</b> 0000 hex
<b>p9611</b>	<b>SI PROFIsafe telegram selection (Control Unit)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 998	<b>Factory setting</b> 998
<b>p9620[0...7]</b>	<b>BI: SI signal source for STO (SH)/SBC/SS1 (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2810 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p9621</b>	<b>BI: SI Safe Brake Adapter signal source (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(95) Data type: Unsigned32 / Binary P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2814 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0

<b>p9622[0...1]</b>	<b>SI SBA relay delay times (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(95) Data type: FloatingPoint32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2814 Unit selection: - Expert list: 1
	Min 0.00 [ms]	Max 1000.00 [ms]	Factory setting [0] 100.00 [ms] [1] 65.00 [ms]

<b>p9650</b>	<b>SI SGE changeover tolerance time (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(95) Data type: FloatingPoint32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2810 Unit selection: - Expert list: 1
	Min 0.00 [ms]	Max 2000.00 [ms]	Factory setting 500.00 [ms]

<b>p9651</b>	<b>SI STO/SBC/SS1 debounce time (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(95) Data type: FloatingPoint32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0.00 [ms]	Max 100.00 [ms]	Factory setting 0.00 [ms]

<b>p9652</b>	<b>SI Safe Stop 1 delay time (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(95) Data type: FloatingPoint32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0.00 [s]	Max 300.00 [s]	Factory setting 0.00 [s]

<b>p9653</b>	<b>SI Safe Stop 1 drive-based braking response</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 1	Factory setting 0

<b>p9658</b>	<b>SI transition time STOP F to STOP A (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2802 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 30000.00 [ms]	<b>Factory setting</b> 0.00 [ms]
<b>p9659</b>	<b>SI forced checking procedure timer</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2810 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [h]	<b>Max</b> 9000.00 [h]	<b>Factory setting</b> 8.00 [h]
<b>r9660</b>	<b>SI forced checking procedure remaining time</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [h]	<b>Max</b> - [h]	<b>Factory setting</b> - [h]
<b>p9697</b>	<b>SI Motion pulse suppression failsafe delay time (CU)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 800.00 [ms]	<b>Factory setting</b> 0.00 [ms]
<b>p9700</b>	<b>SI Motion copy function</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95), U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> 00D0 hex	<b>Factory setting</b> 0000 hex
<b>p9700</b>	<b>SI Motion copy function</b>		
TM54F_MA	<b>Can be changed:</b> C2(95), U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> 0057 hex	<b>Factory setting</b> 0000 hex

<b>p9701</b>	<b>Acknowledge SI motion data change</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95), U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> 00EC hex	<b>Factory setting</b> 0000 hex

<b>p9701</b>	<b>Acknowledge SI motion data change</b>		
TM54F_MA, TM54F_SL	<b>Can be changed:</b> C2(95), U, T <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> 00EC hex	<b>Factory setting</b> 0000 hex

<b>p9705</b>	<b>BI: SI Motion: Test stop signal source</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>r9708[0...4]</b>	<b>SI Motion diagnostics safe position</b>		
SERVO_840	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2822 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [mm]	<b>Max</b> - [mm]	<b>Factory setting</b> - [mm]

<b>r9708[0...4]</b>	<b>SI Motion diagnostics safe position</b>		
SERVO_840 (Safety rot)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2822 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [°]	<b>Max</b> - [°]	<b>Factory setting</b> - [°]

<b>r9708[0...4]</b>	<b>SI Motion diagnostics safe position</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2822 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [mm]	<b>Max</b> - [mm]	<b>Factory setting</b> - [mm]

<b>r9708[0...4]</b>	<b>SI Motion diagnostics safe position</b>			
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2822 <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> - [°]	<b>Max</b> - [°]	<b>Factory setting</b> - [°]	
<b>r9710[0...1]</b>	<b>SI Motion diagnostics result list 1</b>			
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -	
<b>r9711[0...1]</b>	<b>SI Motion diagnostics result list 2</b>			
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -	
<b>r9712</b>	<b>CO: SI Motion diagnostics position actual value motor side</b>			
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -	
<b>r9713[0...4]</b>	<b>CO: SI Motion diagnostics position actual value load side</b>			
SERVO_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -	
<b>r9713[0...4]</b>	<b>CO: SI Motion diagnostics position actual value load side</b>			
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -	

<b>r9714[0...2]</b>	<b>CO: SI motion diagnostics velocity</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [mm/min]	<b>Max</b> - [mm/min]	<b>Factory setting</b> - [mm/min]

<b>r9714[0...2]</b>	<b>CO: SI motion diagnostics velocity</b>		
SERVO (Safety rot), SERVO_840 (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>r9718.23</b>	<b>CO/BO: SI Motion control signals 1</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r9718.23</b>	<b>CO/BO: SI Motion control signals 1</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r9719.0...31</b>	<b>CO/BO: SI Motion control signals 2</b>		
SERVO_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r9719.0...31</b>	<b>CO/BO: SI Motion control signals 2</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r9720.0...19</b>	<b>CO/BO: SI Motion control signals integrated in the drive</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: 2840, 2855 Unit selection: - Expert list: 1  Factory setting -
<b>r9721.0...15</b>	<b>CO/BO: SI Motion status signals</b>		
SERVO_840	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r9721.0...15</b>	<b>CO/BO: SI Motion status signals</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r9722.0...31</b>	<b>CO/BO: SI Motion status signals integrated in the drive</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: 2840, 2855 Unit selection: - Expert list: 1  Factory setting -
<b>r9722.0...31</b>	<b>CO/BO: SI Motion status signals integrated in the drive</b>		
SERVO (Lin), SERVO_AC (Lin)	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: 2840, 2855 Unit selection: - Expert list: 1  Factory setting -

<b>r9723.1...17</b>	<b>CO/BO: SI Motion diagnostic signals integrated in the drive</b>		
SERVO_840	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r9723.0...17</b>	<b>CO/BO: SI Motion diagnostic signals integrated in the drive</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>r9724</b>	<b>SI Motion crosswise comparison clock cycle</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	- [ms]	- [ms]	- [ms]

<b>r9725[0...2]</b>	<b>SI Motion, diagnostics STOP F</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-

<b>p9726</b>	<b>SI Motion, user agreement selection/de-selection</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	0000 hex	00AC hex	0000 hex

<b>r9727</b>	<b>SI Motion user agreement, inside the drive</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> -	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> 2822
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b>	<b>Max</b>	<b>Factory setting</b>
	-	-	-



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<b>r9728[0...2]</b>	<b>SI Motion actual checksum, SI parameters</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>p9729[0...2]</b>	<b>SI Motion reference checksum, SI parameters</b>		
SERVO_840	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

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<b>p9729[0...2]</b>	<b>SI Motion reference checksum, SI parameters</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

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<b>r9730</b>	<b>SI Motion Safe maximum velocity</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [mm/min]	<b>Max</b> - [mm/min]	<b>Factory setting</b> - [mm/min]

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<b>r9730</b>	<b>SI Motion Safe maximum velocity</b>		
SERVO (Safety rot), SERVO_840 (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>r9731</b>	<b>SI Motion safe position accuracy</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -  <b>Min</b> - [mm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [mm]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [mm]

<b>r9731</b>	<b>SI Motion safe position accuracy</b>		
SERVO (Safety rot), SERVO_840 (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -  <b>Min</b> - [°]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [°]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [°]

<b>r9732</b>	<b>SI Motion velocity resolution</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -  <b>Min</b> - [mm/min]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [mm/min]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [mm/min]

<b>r9732</b>	<b>SI Motion velocity resolution</b>		
SERVO (Safety rot), SERVO_840 (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -  <b>Min</b> - [rpm]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -  <b>Max</b> - [rpm]	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1  <b>Factory setting</b> - [rpm]

<b>r9733[0...2]</b>	<b>CO: SI Motion setpoint speed limit effective</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32  <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -  <b>Min</b> - [rpm]	<b>Calculated:</b> - <b>Dynamic index:</b> -  <b>Units group:</b> 3_1 <b>Scaling:</b> p2000  <b>Max</b> - [rpm]	<b>Access level:</b> 3 <b>Func. diagram:</b> 2820, 2861, 3630 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1  <b>Factory setting</b> - [rpm]

<b>r9733[0...2]</b>	<b>CO: SI Motion setpoint speed limit effective</b>		
SERVO (Lin), SERVO_840 (Lin), SERVO_AC (Lin)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> - <b>Min</b> - [m/min]	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 4_1 <b>Scaling:</b> p2000 <b>Max</b> - [m/min]	<b>Access level:</b> 3 <b>Func. diagram:</b> 2820, 2861, 3630 <b>Unit selection:</b> p0505 <b>Expert list:</b> 1 <b>Factory setting</b> - [m/min]
<b>r9734.0...15</b>	<b>CO/BO: SI Motion Safety Info Channel status word</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> - <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> - <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> -
<b>r9735[0...1]</b>	<b>SI Motion diagnostics result list 3</b>		
SERVO_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> - <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> - <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> -
<b>r9736[0...1]</b>	<b>SI Motion diagnostics result list 4</b>		
SERVO_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> - <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> - <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> -
<b>r9737[0...1]</b>	<b>SI Motion diagnostics result list 5</b>		
SERVO_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> - <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> - <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> -
<b>r9738[0...1]</b>	<b>SI Motion diagnostics result list 6</b>		
SERVO_840	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> - <b>Min</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> - <b>Max</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting</b> -

<b>r9739[0...1]</b>	<b>SI Motion diagnostics result list 7</b>		
SERVO_840	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting: -
	Min: -	Max: -	

<b>p9740</b>	<b>SI Motion, user agreement selection/de-selection MM</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: U, T Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting: 0000 bin
	Min: 0000 bin	Max: 1010 1100 bin	

<b>r9741</b>	<b>SI Motion user agreement, inside the drive MM</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2822 Unit selection: - Expert list: 1 Factory setting: -
	Min: -	Max: -	

<b>r9744</b>	<b>SI message buffer changes, counter</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned16 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting: -
	Min: -	Max: -	

<b>r9745[0...63]</b>	<b>SI component number</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting: -
	Min: -	Max: -	

<b>r9747[0...63]</b>	<b>SI message code</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned16 P-Group: Messages Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting: -
	Min: -	Max: -	

<b>r9748[0...63]</b>	<b>SI message time received in milliseconds</b>			
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> - [ms]	<b>Max</b> - [ms]	<b>Factory setting</b> - [ms]	
<b>r9749[0...63]</b>	<b>SI message value</b>			
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Integer32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -	
<b>r9750[0...63]</b>	<b>SI diagnostic attributes</b>			
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -	
<b>p9752</b>	<b>SI message cases, counter</b>			
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> 0	<b>Max</b> 65535	<b>Factory setting</b> 0	
<b>r9753[0...63]</b>	<b>SI message value for float values</b>			
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -	
<b>r9754[0...63]</b>	<b>SI message time received in days</b>			
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -	

<b>r9755[0...63]</b>	<b>SI message time removed in milliseconds</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [ms]	<b>Max</b> - [ms]	<b>Factory setting</b> - [ms]

<b>r9756[0...63]</b>	<b>SI message time removed in days</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Messages <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p9761</b>	<b>SI password input</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C1, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2800 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

<b>p9762</b>	<b>SI password new</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2800 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

<b>p9763</b>	<b>SI password acknowledgement</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2800 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

<b>r9765</b>	<b>SI Motion forced check procedure remaining time (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [h]	<b>Max</b> - [h]	<b>Factory setting</b> - [h]

<b>r9768[0...7]</b>	<b>SI PROFIsafe receive control words (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r9769[0...7]</b>	<b>SI PROFIsafe send status words (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r9770[0...3]</b>	<b>SI version drive-integrated safety function (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2802 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r9771</b>	<b>SI common functions (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2804 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r9772.0...23</b>	<b>CO/BO: SI status (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: 2804 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -
<b>r9773.0...31</b>	<b>CO/BO: SI status (Control Unit + Motor Module)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: 2804 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r9774.0...31</b>	<b>CO/BO: SI status (group STO)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2804 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r9776</b>	<b>SI diagnostics</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r9780</b>	<b>SI monitoring clock cycle (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2802 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [ms]	<b>Max</b> - [ms]	<b>Factory setting</b> - [ms]

<b>r9781[0...1]</b>	<b>SI checksum to check changes (Control Unit)</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r9782[0...1]</b>	<b>SI time stamps to check changes (Control Unit)</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [h]	<b>Max</b> - [h]	<b>Factory setting</b> - [h]



<b>p9783</b>	<b>SI motion synchr. motor current injection sensorless</b>		
SERVO, SERVO_AC, VECTOR (n/M), VECTOR_AC (n/M)	<b>Can be changed:</b> U, T <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -50.00 [%]	<b>Max</b> 0.00 [%]	<b>Factory setting</b> -20.00 [%]
<b>r9784[0...1]</b>	<b>SI Motion diagnostics acceleration encoderless</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [mm/s <sup>2</sup> ]	<b>Max</b> - [mm/s <sup>2</sup> ]	<b>Factory setting</b> - [mm/s <sup>2</sup> ]
<b>r9784[0...1]</b>	<b>SI Motion diagnostics acceleration encoderless</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [rev/s <sup>2</sup> ]	<b>Max</b> - [rev/s <sup>2</sup> ]	<b>Factory setting</b> - [rev/s <sup>2</sup> ]
<b>r9785[0...1]</b>	<b>SI Motion diagnostics absolute current value encoderless</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> 6_3 <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> p0505 <b>Expert list:</b> 1
	<b>Min</b> - [mA]	<b>Max</b> - [mA]	<b>Factory setting</b> - [mA]
<b>r9786[0...2]</b>	<b>SI Motion diagnostics plausibility angle value encoderless</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [°]	<b>Max</b> - [°]	<b>Factory setting</b> - [°]
<b>r9787</b>	<b>SI Motion possible error tolerance sensorless</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [mm/min]	<b>Max</b> - [mm/min]	<b>Factory setting</b> - [mm/min]

<b>r9787</b>	<b>SI Motion possible error tolerance sensorless</b>		
SERVO (Safety rot), SERVO_AC (Safety rot), VECTOR (Safety rot), VECTOR_AC (Safety rot)	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [rpm]	<b>Max</b> - [rpm]	<b>Factory setting</b> - [rpm]

<b>r9794[0...19]</b>	<b>SI crosswise comparison list (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2802 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r9795</b>	<b>SI diagnostics STOP F (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2802 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r9798</b>	<b>SI actual checksum SI parameters (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2800 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p9799</b>	<b>SI reference checksum SI parameters (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2800 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

<b>p9801</b>	<b>SI enable, functions integrated in the drive (Motor Module)</b>		
SERVO_840	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 bin

<b>p9801</b>	<b>SI enable, functions integrated in the drive (Motor Module)</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 bin
<b>p9801</b>	<b>SI enable, functions integrated in the drive (Motor Module)</b>		
SERVO, VECTOR	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0000 0000 bin
<b>p9802</b>	<b>SI enable Safe Brake Control (Motor Module)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2814 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>p9810</b>	<b>SI PROFIsafe address (Motor Module)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFE hex	<b>Factory setting</b> 0000 hex
<b>p9811</b>	<b>SI PROFIsafe telegram selection (Motor Module)</b>		
SERVO, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 998	<b>Factory setting</b> 998
<b>p9821</b>	<b>BI: SI Safe Brake Adapter signal source (Motor Module)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 / Binary <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2814 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> 0

<b>p9822[0...1]</b>	<b>SI SBA relay delay times (Motor Module)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2814 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 1000000.00 [µs]	<b>Factory setting</b> [0] 100000.00 [µs] [1] 65000.00 [µs]

<b>p9850</b>	<b>SI SGE changeover tolerance time (Motor Module)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2810 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 2000000.00 [µs]	<b>Factory setting</b> 500000.00 [µs]

<b>p9851</b>	<b>SI STO/SBC/SS1 debounce time (Motor Module)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 100000.00 [µs]	<b>Factory setting</b> 0.00 [µs]

<b>p9852</b>	<b>SI Safe Stop 1 delay time (Motor Module)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 300000.00 [ms]	<b>Factory setting</b> 0.00 [ms]

<b>p9858</b>	<b>SI transition time STOP F to STOP A (Control Unit)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2802 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [µs]	<b>Max</b> 30000000.00 [µs]	<b>Factory setting</b> 0.00 [µs]

<b>r9870[0...3]</b>	<b>SI version drive-integrated safety function (Motor Module)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2802 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r9871</b>	<b>SI common functions (Motor Module)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2804 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r9872.0...24</b>	<b>CO/BO: SI status list (Motor Module)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> 2804 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r9880</b>	<b>SI monitoring clock cycle (Motor Module)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2802 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [ms]	<b>Max</b> - [ms]	<b>Factory setting</b> - [ms]

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<b>r9881[0...11]</b>	<b>SI Motion Sensor Module Node Identifier second channel</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r9890[0...2]</b>	<b>SI version (Sensor Module)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r9894[0...19]</b>	<b>SI crosswise comparison list (Motor Module)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2802 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r9895</b>	<b>SI diagnostics STOP F (Motor Module)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 2 Func. diagram: 2802 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>p9897</b>	<b>SI Motion pulse suppression failsafe delay time (MM)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(95) Data type: FloatingPoint32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0.00 [µs]	Max 800000.00 [µs]	Factory setting 0.00 [µs]

<b>r9898</b>	<b>SI actual checksum SI parameters (Motor Module)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2800 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>p9899</b>	<b>SI reference checksum SI parameters (Motor Module)</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2800 Unit selection: - Expert list: 1
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex

<b>r9900</b>	<b>Actual topology number of indices</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned16 P-Group: Topology Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 0
	Min -	Max -	Factory setting -

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<b>r9901[0...n]</b>	<b>Actual topology</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Topology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> r9900 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>p9902</b>	<b>Target topology number of indices</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Topology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 1	<b>Max</b> 65535	<b>Factory setting</b> 1

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<b>p9903[0...n]</b>	<b>Target topology</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Topology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> p9902 <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0000 hex	<b>Max</b> FFFF hex	<b>Factory setting</b> 0000 hex

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<b>p9904</b>	<b>Topology comparison, acknowledge differences</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(1) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Topology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

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<b>p9905</b>	<b>Device specialization</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(1) <b>Data type:</b> Unsigned16 <b>P-Group:</b> Topology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 0

<b>p9906</b>	<b>Topology comparison, comparison stage of all components</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: C1(1) Data type: Integer16 P-Group: Topology Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 99	Factory setting 0

<b>p9907</b>	<b>Topology comparison, comparison stage of the component number</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: C1(1) Data type: Unsigned8 P-Group: Topology Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 199	Factory setting 0

<b>p9908</b>	<b>Topology comparison, comparison stage of a component</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: C1(1) Data type: Integer16 P-Group: Topology Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 99	Factory setting 0

<b>p9909</b>	<b>Topology comparison, component replacement</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: C1(1) Data type: Unsigned8 P-Group: Topology Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 1	Factory setting 1

<b>p9910</b>	<b>Transfer additional components into the target topology</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: C1(1) Data type: Integer16 P-Group: Topology Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 1 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 6	Factory setting 0



<b>p9911[0...3]</b>	<b>Insert drive object</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(1) <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0	<b>Max</b> 4294967295	<b>Factory setting</b> 0
<b>p9912[0...1]</b>	<b>Delete drive object</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(3) <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0	<b>Max</b> 62	<b>Factory setting</b> 0
<b>p9913[0...2]</b>	<b>Change drive object number</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(4) <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 62	<b>Factory setting</b> 0
<b>p9914[0...2]</b>	<b>Change component number</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1 <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0	<b>Max</b> 199	<b>Factory setting</b> 0
<b>p9915</b>	<b>DRIVE-CLiQ data transfer error shutdown threshold master</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(1) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Topology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> 0007 07FF hex	<b>Factory setting</b> 0007 02FF hex

<b>p9916</b>	<b>DRIVE-CLiQ data transfer error shutdown threshold slave</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(1) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Topology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> 0007 07FF hex	<b>Factory setting</b> 0007 02FF hex
<b>p9917[0...1]</b>	<b>Delete component</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(30) <b>Data type:</b> Unsigned16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0	<b>Max</b> 199	<b>Factory setting</b> 0
<b>p9920[0...99]</b>	<b>Licensing, enter license key</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p9921</b>	<b>Licensing, activate license key</b>		
CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Integer16 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>r9925[0...99]</b>	<b>Firmware file incorrect</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>r9926</b>	<b>Firmware check status</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 2 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -
<b>p9930[0...8]</b>	<b>System logbook activation</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0
<b>p9931[0...129]</b>	<b>System logbook module selection</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex
<b>p9932</b>	<b>Save system logbook EEPROM</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> U, T <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0
<b>r9935.0</b>	<b>BO: POWER ON delay signal</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned8 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p9941</b>	<b>Target topology feature delete all components</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> C1(1) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Topology <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 0
	<b>Min</b> 0	<b>Max</b> 1	<b>Factory setting</b> 0
<b>r9975[0...7]</b>	<b>System utilization measured</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]
<b>r9976[0...7]</b>	<b>System utilization</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]
<b>r9979</b>	<b>Sampling time with largest total utilization</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [µs]	<b>Max</b> - [µs]	<b>Factory setting</b> - [µs]
<b>r9980[0...101]</b>	<b>Sampling times utilization calculated</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]

<b>r9981[0...101]</b>	<b>Sampling times utilization measured</b>			
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]	
<b>r9982[0...4]</b>	<b>Data memory utilization</b>			
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]	
<b>r9983[0...4]</b>	<b>Measured data memory utilization (actual load)</b>			
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]	
<b>r9984[0...4]</b>	<b>Data memory utilization OA</b>			
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]	
<b>r9986[0...7]</b>	<b>DRIVE-CLiQ system load</b>			
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1	
	<b>Min</b> - [%]	<b>Max</b> - [%]	<b>Factory setting</b> - [%]	

<b>r9987[0...7]</b>	<b>DRIVE-CLiQ bandwidth load</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min - [%]	Max - [%]	Factory setting - [%]

<b>r9988[0...7]</b>	<b>DRIVE-CLiQ DPRAM load</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: FloatingPoint32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min - [%]	Max - [%]	Factory setting - [%]

<b>p9990</b>	<b>DO memory usage actual value determination selection</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: U, T Data type: Unsigned16 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 65535	Factory setting 0

<b>r9991[0...4]</b>	<b>Memory usage drive object actual value</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>r9992[0...4]</b>	<b>Memory usage drive object reference value</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	Can be changed: - Data type: Unsigned32 P-Group: - Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

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<b>r9993[0...4]</b>	<b>Memory usage OA application</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>r9999[0...99]</b>	<b>Software error internal supplementary diagnostics</b>		
CU_I_840, CU_NX_840, CU_S_AC_DP, CU_S_AC_PN, CU_S120_DP, CU_S120_PN	<b>Can be changed:</b> - <b>Data type:</b> Unsigned32 <b>P-Group:</b> - <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

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<b>p10000</b>	<b>SI sampling time</b>		
TM54F_MA, TM54F_SL	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1.00 [ms]	<b>Max</b> 25.00 [ms]	<b>Factory setting</b> 12.00 [ms]

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<b>p10001</b>	<b>SI delay time for test stop at DO</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 4.00 [ms]	<b>Max</b> 2000.00 [ms]	<b>Factory setting</b> 500.00 [ms]

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<b>p10001</b>	<b>SI delay time for test stop at DO 0 ... DO 3</b>		
TM54F_MA, TM54F_SL	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 2.00 [ms]	<b>Max</b> 2000.00 [ms]	<b>Factory setting</b> 500.00 [ms]

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<b>p10002</b>	<b>SI discrepancy monitoring time</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: FloatingPoint32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 1.00 [ms]	Max 2000.00 [ms]	Factory setting 500.00 [ms]

<b>p10002</b>	<b>SI discrepancy monitoring time</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: FloatingPoint32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2850, 2851 Unit selection: - Expert list: 1
	Min 1.00 [ms]	Max 2000.00 [ms]	Factory setting 500.00 [ms]

<b>p10003</b>	<b>SI forced checking procedure timer</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: FloatingPoint32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0.00 [h]	Max 8760.00 [h]	Factory setting 8.00 [h]

<b>p10003</b>	<b>SI forced checking procedure timer</b>		
TM54F_MA	Can be changed: C2(95) Data type: FloatingPoint32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2848 Unit selection: - Expert list: 1
	Min 0.00 [h]	Max 8760.00 [h]	Factory setting 8.00 [h]

<b>r10004[0...1]</b>	<b>SI actual checksum TM54F parameters</b>		
TM54F_MA, TM54F_SL	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2847 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting -

<b>p10005[0...1]</b>	<b>SI reference checksum TM54F parameters</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2847 Unit selection: - Expert list: 1
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex



<b>p10006</b>	<b>SI acknowledgement internal event F-DI (processor 1)</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0
<b>p10006</b>	<b>SI acknowledgement internal event input terminal</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0
<b>p10007</b>	<b>BI: SI forced checking procedure F-DO signal source</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Unsigned32 / Binary P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2848 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0
<b>p10007</b>	<b>BI: SI forced checking procedure F-DI/F-DO signal source</b>		
TM54F_MA	Can be changed: C2(95) Data type: Unsigned32 / Binary P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2848 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0
<b>p10008</b>	<b>SI operating mode TM54F</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 1	Factory setting 1
<b>p10009</b>	<b>SI SLP retract F-DI</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 3	Factory setting 0

<b>p10009</b>	<b>SI SLP retract F-DI</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 10	Factory setting 0
<b>p10010[0...5]</b>	<b>SI drive object assignment</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Unsigned16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2847, 2848 Unit selection: - Expert list: 1
	Min 0	Max 62	Factory setting 0
<b>p10011[0...5]</b>	<b>SI drive group assignment</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Unsigned16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2848 Unit selection: - Expert list: 1
	Min 1	Max 4	Factory setting 1
<b>p10012[0...5]</b>	<b>SI Motor Module Node Identifier Word 1</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
<b>p10013[0...5]</b>	<b>SI Motor Module Node Identifier Word 2</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex
<b>p10014[0...5]</b>	<b>SI Motor Module Node Identifier Word 3</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 4 Func. diagram: - Unit selection: - Expert list: 1
	Min 0000 hex	Max FFFF FFFF hex	Factory setting 0000 hex

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<b>p10017</b>	<b>SI digital inputs debounce time (processor 1)</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 100.00 [ms]	<b>Factory setting</b> 1.00 [ms]

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<b>p10017</b>	<b>SI digital inputs debounce time</b>		
TM54F_MA, TM54F_SL	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> FloatingPoint32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 1.00 [ms]	<b>Max</b> 100.00 [ms]	<b>Factory setting</b> 1.00 [ms]

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<b>p10020[0...3]</b>	<b>SI special operating mode selection</b>		
TM54F_MA, TM54F_SL	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 1

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<b>p10021[0...3]</b>	<b>SI Emergency Stop stop response</b>		
TM54F_MA, TM54F_SL	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 4
	<b>Data type:</b> Unsigned32	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 2	<b>Factory setting</b> 0

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<b>p10022</b>	<b>SI STO input terminal (processor 1)</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0

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<b>p10022[0...3]</b>	<b>SI STO input terminal</b>		
TM54F_MA, TM54F_SL	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0

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<b>p10023</b>	<b>SI SS1 input terminal (processor 1)</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0

<b>p10023[0...3]</b>	<b>SI SS1 input terminal</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0

<b>p10024</b>	<b>SI SS2 input terminal (processor 1)</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0

<b>p10024[0...3]</b>	<b>SI SS2 input terminal</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0

<b>p10025</b>	<b>SI SOS input terminal (processor 1)</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0

<b>p10025[0...3]</b>	<b>SI SOS input terminal</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0

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<b>p10026</b>	<b>SI SLS input terminal (processor 1)</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0

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<b>p10026[0...3]</b>	<b>SI SLS input terminal</b>		
TM54F_MA, TM54F_SL	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0

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<b>p10027</b>	<b>SI SLS limit bit 0 input terminal (processor 1)</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0

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<b>p10027[0...3]</b>	<b>SI SLS limit bit 0 input terminal</b>		
TM54F_MA, TM54F_SL	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0

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<b>p10028</b>	<b>SI SLS limit bit 1 input terminal (processor 1)</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0

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<b>p10028[0...3]</b>	<b>SI SLS limit bit 1 input terminal</b>		
TM54F_MA, TM54F_SL	<b>Can be changed:</b> C2(95)	<b>Calculated:</b> -	<b>Access level:</b> 3
	<b>Data type:</b> Integer16	<b>Dynamic index:</b> -	<b>Func. diagram:</b> -
	<b>P-Group:</b> Safety Integrated	<b>Units group:</b> -	<b>Unit selection:</b> -
	<b>Not for motor type:</b> -	<b>Scaling:</b> -	<b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0

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<b>p10030</b>	<b>SI SDI positive input terminal (processor 1)</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0

<b>p10030[0...3]</b>	<b>SI SDI positive input terminal</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0

<b>p10031</b>	<b>SI SDI negative input terminal (processor 1)</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0

<b>p10031[0...3]</b>	<b>SI SDI negative input terminal</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0

<b>p10032</b>	<b>SI SLP select input terminal (processor 1)</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0

<b>p10032[0...3]</b>	<b>SI SLP input terminal</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0	Max 255	Factory setting 0

<b>p10033</b>	<b>SI SLP select input terminal (processor 1)</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
<b>p10033[0...3]</b>	<b>SI SLP select input terminal</b>		
TM54F_MA, TM54F_SL	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
<b>p10036[0...3]</b>	<b>SI special operating mode input terminal</b>		
TM54F_MA, TM54F_SL	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
<b>p10037[0...3]</b>	<b>SI agreement input terminal</b>		
TM54F_MA, TM54F_SL	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
<b>p10038[0...3]</b>	<b>SI Emergency Stop input terminal</b>		
TM54F_MA, TM54F_SL	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 4 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0
<b>p10039</b>	<b>SI Safe State signal selection</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2856 <b>Unit selection:</b> - <b>Expert list:</b> 1 <b>Factory setting:</b> 0000 0001 bin

<b>p10039[0...3]</b>	<b>SI Safe State signal selection</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: 2856 Unit selection: - Expert list: 1  Factory setting 0000 0001 bin
<b>p10040</b>	<b>SI F-DI input mode</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0000 bin
<b>p10040</b>	<b>SI F-DI input mode</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0000 0000 0000 0000 bin
<b>p10041</b>	<b>SI F-DI enable for test</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: 2848 Unit selection: - Expert list: 1  Factory setting 0000 0000 0000 0000 bin
<b>p10042[0...5]</b>	<b>SI F-DO 0 signal sources</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 15	Access level: 3 Func. diagram: 2857 Unit selection: - Expert list: 1  Factory setting 0
<b>p10042[0...5]</b>	<b>SI F-DO 0 signal sources</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 783	Access level: 3 Func. diagram: 2857 Unit selection: - Expert list: 1  Factory setting 0



<b>p10043[0...5]</b>	<b>SI F-DO 1 signal sources</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2857 Unit selection: - Expert list: 1
	Min 0	Max 783	Factory setting 0
<b>p10044[0...5]</b>	<b>SI F-DO 2 signal sources</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2857 Unit selection: - Expert list: 1
	Min 0	Max 783	Factory setting 0
<b>p10045[0...5]</b>	<b>SI F-DO 3 signal sources</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2857 Unit selection: - Expert list: 1
	Min 0	Max 783	Factory setting 0
<b>p10046</b>	<b>SI F-DO feedback signal input activation</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0000 bin
<b>p10046</b>	<b>SI F-DO feedback signal input activation</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2848 Unit selection: - Expert list: 1
	Min -	Max -	Factory setting 0000 bin
<b>p10047</b>	<b>SI F-DO test stop mode</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1
	Min 0001 bin	Max 0011 bin	Factory setting 0010 bin

<b>p10047[0...3]</b>	<b>SI F-DO test stop mode</b>		
TM54F_MA, TM54F_SL	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -  Min 0001 bin	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 0011 bin	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0010 bin

<b>r10049</b>	<b>SI F-DI monitoring status (processor 1)</b>		
SERVO_AC, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>p10050</b>	<b>SI PROFIsafe F-DI transfer (processor 1)</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0000 bin

<b>r10051.0...2</b>	<b>CO/BO: SI digital inputs status (processor 1)</b>		
SERVO_AC, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r10051.0...9</b>	<b>CO/BO: SI digital inputs status</b>		
TM54F_MA, TM54F_SL	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: 2850, 2851 Unit selection: - Expert list: 1  Factory setting -

<b>r10052.0</b>	<b>CO/BO: SI digital outputs status (processor 1)</b>		
SERVO_AC, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r10052.0...3</b>	<b>CO/BO: SI digital outputs status</b>		
TM54F_MA, TM54F_SL	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r10053.0...3</b>	<b>CO/BO: SI digital inputs 20 ... 23 status</b>		
TM54F_SL	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: 2848 Unit selection: - Expert list: 1  Factory setting -
<b>r10054</b>	<b>SI TM54F failsafe events active</b>		
TM54F_MA, TM54F_SL	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>r10055</b>	<b>SI TM54F communication status drive-specific</b>		
TM54F_MA, TM54F_SL	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: 2846 Unit selection: - Expert list: 1  Factory setting -
<b>r10056.0</b>	<b>CO/BO: SI Status</b>		
TM54F_MA	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -
<b>p10061</b>	<b>SI password input TM54F</b>		
TM54F_MA, TM54F_SL	Can be changed: T Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min 0000 hex	Calculated: - Dynamic index: - Units group: - Scaling: -  Max FFFF FFFF hex	Access level: 3 Func. diagram: 2847 Unit selection: - Expert list: 1  Factory setting 0000 hex

<b>p10062</b>	<b>SI password new TM54F</b>		
TM54F_MA, TM54F_SL	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2847 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

<b>p10063</b>	<b>SI password acknowledgement TM54F</b>		
TM54F_MA, TM54F_SL	<b>Can be changed:</b> C2(95) <b>Data type:</b> Unsigned32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2847 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0000 hex	<b>Max</b> FFFF FFFF hex	<b>Factory setting</b> 0000 hex

<b>r10090[0...3]</b>	<b>SI TM54F version</b>		
TM54F_MA, TM54F_SL	<b>Can be changed:</b> - <b>Data type:</b> Unsigned16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> -	<b>Max</b> -	<b>Factory setting</b> -

<b>p10101</b>	<b>SI delay time for test stop at DO</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 4.00 [ms]	<b>Max</b> 2000.00 [ms]	<b>Factory setting</b> 500.00 [ms]

<b>p10102</b>	<b>SI discrepancy monitoring time (processor 2)</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> 2850, 2851 <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 1.00 [ms]	<b>Max</b> 2000.00 [ms]	<b>Factory setting</b> 500.00 [ms]

<b>p10106</b>	<b>SI acknowledgement internal event F-DI (processor 2)</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0

<b>p10109</b>	<b>SI SLP retract F-DI</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 3	<b>Factory setting</b> 0
<b>p10117</b>	<b>SI digital inputs debounce time (processor 2)</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> FloatingPoint32 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0.00 [ms]	<b>Max</b> 100.00 [ms]	<b>Factory setting</b> 1.00 [ms]
<b>p10122</b>	<b>SI STO input terminal (processor 2)</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0
<b>p10123</b>	<b>SI SS1 input terminal (processor 2)</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0
<b>p10124</b>	<b>SI SS2 input terminal (processor 2)</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0
<b>p10125</b>	<b>SI SOS input terminal (processor 2)</b>		
SERVO_AC, VECTOR_AC	<b>Can be changed:</b> C2(95) <b>Data type:</b> Integer16 <b>P-Group:</b> Safety Integrated <b>Not for motor type:</b> -	<b>Calculated:</b> - <b>Dynamic index:</b> - <b>Units group:</b> - <b>Scaling:</b> -	<b>Access level:</b> 3 <b>Func. diagram:</b> - <b>Unit selection:</b> - <b>Expert list:</b> 1
	<b>Min</b> 0	<b>Max</b> 255	<b>Factory setting</b> 0

<b>p10126</b>	<b>SI SLS input terminal (processor 2)</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0
	Min 0	Max 255	

<b>p10127</b>	<b>SI SLS limit bit 0 input terminal (processor 2)</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0
	Min 0	Max 255	

<b>p10128</b>	<b>SI SLS limit bit 1 input terminal (processor 2)</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0
	Min 0	Max 255	

<b>p10130</b>	<b>SI SDI positive input terminal (processor 2)</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0
	Min 0	Max 255	

<b>p10131</b>	<b>SI SDI negative input terminal (processor 2)</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0
	Min 0	Max 255	

<b>p10132</b>	<b>SI SLP input terminal (processor 2)</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0
	Min 0	Max 255	

<b>p10133</b>	<b>SI SLP position range select input terminal (processor 2)</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0
	Min 0	Max 255	
<b>p10139</b>	<b>SI Safe State signal selection (processor 2)</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2856 Unit selection: - Expert list: 1 Factory setting 0000 0001 bin
	Min -	Max -	
<b>p10140</b>	<b>SI F-DI input mode (processor 2)</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0000 bin
	Min -	Max -	
<b>p10142[0...5]</b>	<b>SI F-DO 0 signal sources (processor 2)</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2857 Unit selection: - Expert list: 1 Factory setting 0
	Min 0	Max 15	
<b>p10146</b>	<b>SI test sensor feedback signal</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: 2848 Unit selection: - Expert list: 1 Factory setting 0000 bin
	Min -	Max -	
<b>p10147</b>	<b>SI F-DO test stop mode</b>		
SERVO_AC, VECTOR_AC	Can be changed: C2(95) Data type: Integer16 P-Group: Safety Integrated Not for motor type: -	Calculated: - Dynamic index: - Units group: - Scaling: -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1 Factory setting 0010 bin
	Min 0001 bin	Max 0011 bin	

<b>r10149</b>	<b>SI F-DI monitoring status (processor 2)</b>		
SERVO_AC, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r10151.0...2</b>	<b>CO/BO: SI digital inputs status (processor 2)</b>		
SERVO_AC, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r10152.0</b>	<b>CO/BO: SI digital outputs status (processor 2)</b>		
SERVO_AC, VECTOR_AC	Can be changed: - Data type: Unsigned32 P-Group: Safety Integrated Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>p60022</b>	<b>PROFIsafe telegram selection</b>		
SERVO, SERVO_840, SERVO_AC, VECTOR, VECTOR_AC	Can be changed: T Data type: Unsigned16 P-Group: Safety Integrated Not for motor type: -  Min 0	Calculated: - Dynamic index: - Units group: - Scaling: -  Max 902	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting 0

<b>r61000[0...239]</b>	<b>PROFINET Name of Station</b>		
CU_S_AC_PN, CU_S120_DP (PROFINET), CU_S120_PN	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -

<b>r61001[0...3]</b>	<b>PROFINET IP of Station</b>		
CU_S_AC_PN, CU_S120_DP (PROFINET), CU_S120_PN	Can be changed: - Data type: Unsigned8 P-Group: - Not for motor type: -  Min -	Calculated: - Dynamic index: - Units group: - Scaling: -  Max -	Access level: 3 Func. diagram: - Unit selection: - Expert list: 1  Factory setting -



# Appendix A

# A

## A.1 List of abbreviations

Abbreviation	Source of abbreviation	Meaning
ADI4	Analog Drive Interface for 4 axes	
AC	Adaptive Control	
ALM	Active Line Module	Infeed module for drives
AS	Automation System	
ASCII	American Standard Code for Information Interchange	American coding standard for the exchange of information
ASIC	Application Specific Integrated Circuit	User switching circuit
ASUB	Asynchronous subprogram	
AUTO		Operating mode "Automatic"
AUXFU	Auxiliary Function:	Auxiliary functions
STL	Statement List	
BA	Operating mode	
Mode group	Mode group	
BERO	Proximity limit switch with feedback oscillator	
BI	Binector Input	
HHU	Handheld unit	
BICO	Binector Connector	Interconnection technology for the drive
BIN	Binary files	Binary files
BIOS	Basic Input Output System	
BCS	Basic Coordinate System	
BO	Binector Output	
OPI	Operator Panel Interface	
CAD	Computer Aided Design	
CAM	Computer-Aided Manufacturing	
CC	Compile Cycle	Compile cycles
CI	Connector Input	
CF Card	Compact Flash Card	
CNC	Computerized Numerical Control	Computer-Supported Numerical Control
CO	Connector Output	
COM board	Communication Board	
CP	Communications Processor	
CPU	Central Processing Unit	Central processing unit
CR	Carriage Return	
CRC	Cyclic Redundancy Check	Checksum test
CRT	Cathode Ray Tube	picture tube

Abbreviation	Source of abbreviation	Meaning
CSB	Central Service Board	PLC module
CTS	Clear To Send	Signal from serial data interfaces
CUTCOM	Cutter radius compensation	Tool radius compensation
DB	Data block	Data block in the PLC
DBB	Data-block byte	Data block byte in the PLC
DBW	Data-block word	Data block byte in the PLC
DBX	Data-block bit	Data block bit in the PLC
DDE	Dynamic Data Exchange	Dynamic Data Exchange
DDS		Drive data set
DIN	Deutsche Industrie Norm (German Industry Standard)	
DIR	Directory	Directory
DLL	Dynamic Link Library	
DO	Drive Object	Drive object
DPM	Dual-Port Memory	
DRAM	Dynamic Random Access Memory	Dynamic memory block
DRF	Differential Resolver Function	Differential resolver function (handwheel)
DRIVE-CLiQ	Drive Component Link with IQ	
DRY	DRY run	DRY run feedrate
DSB	Decoding Single Block	Decoding single block
DSC	Dynamic Servo Control / Dynamic Stiffness Control	
DSR	Data Send Ready	Signals that data is ready to be sent from the serial data interfaces
DW	Data word	
DWORD	Double Word (currently 32 bits)	
E	Input	
I/O	Input/Output	
ENC	Encoder	Actual value encoder
EPROM	Erasable Programmable Read Only Memory	Erasable, electronically programmable read-only memory
ePS Network Services		Services for Internet-based remote machine maintenance
EQN		Designation for an absolute encoder with 2048 sine signals per revolution
ESR	Extended stop and retract	
ETC	ETC key	Expansion of the softkey bar in the same menu
FB	Function block	
FBS	Slimline screen	
FC	Function call	Function block in the PLC
FEPROM	Flash EPROM	Read and write memory
FIFO	First In - First Out	Method of storing and retrieving data in a memory

Abbreviation	Source of abbreviation	Meaning
FIPO	Fine InterPOLator	
FM	Function Module	
FM-NC	Function Module Numerical Control	Numerical Control
FPU	Floating-point unit	Floating Point Unit
FRA	Frame block	
FRAME	Data set	Coordinate conversion with the components work offset, rotation, scaling, mirroring
CRC	Cutter radius compensation	
FST	Feed Stop	Feed stop
CSF	Function plan (PLC programming method)	
FW	Firmware	
GC	Global control	PROFIBUS: Broadcast telegram
GD	Global data	
GEO	Geometry, e.g. geometry axis	
BP	Basic program	
GS	Gear stage	
GUD	Global User Data	Global user data
HD	Hard Disk	Hard disk
HEX	Abbreviation for hexadecimal number	
AuxF	Auxiliary function	
HMI	Human Machine Interface	SINUMERIK user interface
MSD	Main Spindle Drive	
HT	Handheld Terminal	Handheld unit
HW	Hardware	
IBN	Startup	
IF	Drive module pulse enable	
IK (GD)	Implicit communication (global data)	
IKA	Interpolative Compensation	Interpolatory compensation
IM	Interface module	Interconnection module
INC	Increment	Increment
INI	Initializing Data	Initializing data
IGBT	Insulated Gate Bipolar Transistor	
IPO	Interpolator	
ISO	International Standardization Organization	International Standards Organization
JOG	"Jogging" operating mode	
COR	Coordinate rotation	
KDV	Crosswise data comparison	Crosswise data comparison between the NCK and PLC
$K_V$	Servo-gain factor	Gain factor of control loop
LAD	Ladder diagram	PLC programming method
LCD	Liquid Crystal Display	Liquid crystal display

## A.1 List of abbreviations

Abbreviation	Source of abbreviation	Meaning
LED	Light Emitting Diode	Light Emitting Diode
LF	Line Feed	
PMS		
LSB	Least Significant Bit	Least significant bit
LUD	Local User Data	User data
MAC	Media Access Control	
MAIN	Main program	Main program (OB1, PLC)
MB	Megabyte	
MCI	Motion Control Interface	
MCIS	Motion Control Information System	
MCP	Machine control panel	Machine control panel
MD	Machine data	
MDI	"Manual Data Automatic" operating mode	Manual input
MCS	Machine coordinate system	
MLFB	Machine-readable product code	
MMC	Man Machine Communication	Synonym for HMI
MPF	Main Program File	Main program (NC part program)
MPI	Multi-Point Interface	Multiport Interface
MCP	Machine control panel	
NC	Numerical Control	Numerical Control
NCK	Numerical Control Kernel	Numerical control kernel
NCU	Numerical Control Unit	Hardware unit of the NCK
IS	Interfaces	Interface signal
WO	Zero offset	
NX	Numerical Extension	Axis expansion board
OB	Organization block in the PLC	
OEM	Original Equipment Manufacturer	
OP	Operator panel	Operator panel
OPI	Operator Panel Interface	Interface for connection to the operator panel
OSI	Open Systems Interconnection	Standard for computer communications
OPT	Options	Options
PIQ	Process Image Output	
PII	Process Image Input	
P bus	Peripheral Bus	
PC	Personal Computer	
PCMCIA	Personal Computer Memory Card International Association	Standard for plug-in memory cards
PCU	Programmable Control Unit	
PI	Program Instance	
PG	Programming device	
PLC	Programmable logic controller	Programmable Logic Controller

Abbreviation	Source of abbreviation	Meaning
PN	PROFINET	
PO	POWER ON	
POU	Program Organization Unit	Unit in the PLC user program
PPU	Panel Processing Unit	Panel-based control
PTP	Point-to-point	Point-to-Point
PZD	Process data for drives	
QEC	Quadrant Error Compensation	Quadrant error compensation
QEC	Quadrant error compensation	
RAM	Random Access Memory	Program memory that can be read and written to
REF POINT		Function "Reference point approach" in JOG mode
REPOS		Function "Repositioning" in JOG mode
RPA	R parameter Active	Memory area on the NCK for R parameter numbers
RPY	Roll Pitch Yaw	Rotation type of a coordinate system
RTC	Real Time Clock	Real-time clock
RTS	Request To Send	RTS, control signal of serial data interfaces
SBL	Single Block	Single block
SBR	Subroutine	Subroutine (PLC)
SD	Setting Data	
SDB	System Data Block	
SEA	Setting Data Active	Identifier (file type) for setting data
SERUPRO	SEArch RUn by PROgram test	Search run by program test
SFC	System Function Call	
SGE	Safety-related input	
SGA	Safety-related output	
SH	Safe standstill	
SK	Softkey	
SKP	Skip	Skip block
SLM	Smart Line Module	
SM	Stepper Motor	
SPF	Subprogram file	Subprogram (NC)
SPL	Safe programmable logic	
PLC	Programmable Logic Controller	
SRAM	Static Random Access Memory	Static memory block
TNRC	Tool Nose Radius Compensation	
LEC	Leadscrew error compensation	
SSI	Serial Synchronous Interface	Synchronous serial interface
STW	Control word	
GWPS	Grinding Wheel Peripheral Speed	
SW	Software	
SYF	System Files	System files

Abbreviation	Source of abbreviation	Meaning
SYNACT	SYNACT synchronized action	Synchronized Action
TB	Terminal Board (SINAMICS)	
TEA	Testing Data Active	Identifier for machine data
TCP	Tool Center Point	Tool tip
TCU	Thin Client Unit	
TEA	Testing Data Active	Identifier for machine data
TM	Terminal Module (SINAMICS)	
TO	Tool offset	Tool offset
TOA	Tool Offset Active	Identifier (file type) for tool offsets
TRANSMIT	Transform Milling Into Turning	Coordinate conversion on turning machine for milling operations
TTL	Transistor-transistor logic	Interface type
UFR	User frame	Zero offset
SR	Subroutine	
USB	Universal Serial Bus	
UPS	Uninterruptible Power Supply	
VDI		Internal communication interface between NCK and PLC
FDD	Feed Drive	
VPM	Voltage Protection Module	
VSM	Voltage Sensing Module	
WAB		Function "Smooth Approach and Retraction"
Work	Workpiece coordinate system	
T	Tool	
TLC	Tool length compensation	
WPD	Workpiece Directory	Workpiece directory
T	Tool	
TM	Tool management	
TC	Tool change	
ZOA	Work Offset Active	Identifier (file type) for zero offset data
SW	Status word (of drive)	

## A.2 Documentation overview

### SINUMERIK 840D sl documentation overview

#### General documentation



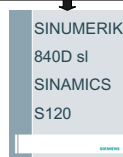
Sales brochure



Catalog NC 62

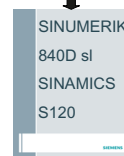
Catalog PM 21 SIMOTION,  
SINAMICS S120 and motors  
for production machines

#### User documentation

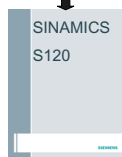
Operating Manual  
– Universal  
– Turning  
– MillingProgramming manual  
– Fundamentals  
– Job planning  
– Measuring cyclesProgramming manual  
– ISO turning  
– ISO milling

Diagnostics manual

#### Manufacturer/service documentation

Device manual  
– NCU  
– operator components  
and networkingSystem manual  
Guidelines for the machine  
configurationSystem manual  
Ctrl EnergyCommissioning manual  
– CNC: NCK, PLC,  
Drive  
– Base software and  
operating softwareList manual  
– Machine data  
– Interface signals  
– Variables

#### Manufacturer/service documentation

Function manual  
– Basic functions  
– Extended functions  
– Special functions  
– Synchronous actions  
– ISO dialectsFunction manual  
Tool managementFunction manual  
Drive functionsFunction manual  
Safety IntegratedConfiguration manual  
EMC Design Guidelines

#### Info/training

Training documents  
– Simple milling  
with ShopMill  
– Simple turning  
with ShopTurnManuals  
Tool and  
mold making

#### Electronic documentation



DOConCD

My Documentation  
Manager

Industry Mall





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