Physical block (Slot 0)

DP index	PN index	Parameter Name	Data Type	Access	Annotation
16	0xB000	BLOCK_OBJECT	DS-32	R	Constant block information
17	0xB001	CURRENT_MODE	Unsigned8	R	Follows the target mode parameter (TARGET_MODE) Coding: 0..7: reserved 8: Automatic 9..127: reserved 128: Out of service 129..255: reserved
18	0xB002	IM_Tag_Function	VisibleString(32)	R,W	TAG name
22	0xB006	TARGET_MODE	Unsigned8	R,W	Desired device mode that is taken over by the CURRENTMODE parameter: Coding: 0..7: reserved 8: Automatic 9..127: reserved 128: Out of service, sets all function blocks into out of service 129..255: reserved Mapped TARGET_MODE
23	0xB007	OrderID	VisibleString(20)	R	Mapped to the first 20 characters of PID_ORDER_NUMBER
24	0xB008	SOFTWARE_VERSION	VisibleString(16)	R	String representation of the product firmware version
25	0xB009	HARDWARE_VERSION	VisibleString(16)	R	String representation of the product hardware version
26	0xB00A	DEVICE_MAN_ID	Unsigned16	R	Manufacturer
27	-	DEVICE_ID	VisibleString(16)	R	Product name
-	0xB00B	DeviceType	VisibleString(25)	R	Product Type, characters 16...24 are filled with zeros
28	0xB00D	IM_Serial_Number	VisibleString(16)	R	serial number of the device
29	0xB00E	DIAGNOSIS**Error! Bookmark not defined.**	OctetString(4)	R	Device global alarm information Coding: Byte 0: Bits 0...7 reserved Byte 1: Bits 0...2 reserved Bit 3 warm start (restart) Bit 4 cold start (application reset) Bit 5 maintenance required Bits 6...7 reserved Byte 2: Bit 0 maintenance alarm Bit 1 maintenance demanded Bit 2 function check Bit 3 invalid process conditions Bit 4 update event Bits 5...7 reserved Byte 3: Bits 0...6 reserved Bit 7 more information is available
30	-	LIST_IDENT_NUM_SUP**Error! Bookmark not defined.**	Unsigned16(25)	R	Provides information which ident numbers are supported by the device. This includes the profile GSD files.
31	0xB010	IM_Tag_Location	VisibleString(22)	R,W	Unique label to identify the device location
32	0xB011	IM_Revision_Counter	Unsigned16	R	The device has parameters with attribute S (static) that are not changed by the process. This parameter will be incremented at least by one if at least one static parameter has been modified. This provides a check of the parameter revision. In case of an overflow this parameter is set to 1 i.e. 0 is not used
33	0xB012	IM_Profile_ID	Unsigned16	R	Fixed to 0x9700
34	0xB013	IM_Profile_Specific_Type	Unsigned16	R	Fixed to 0x01FF

DP index	PN index	Parameter Name	Data Type	Access	Annotation
35	0xB014	RESET	Unsigned16	R,W	Coding: 0: reserved 1: Application Reset: is the command for resetting a device to Profile default values. The setting of the bus address is not affected. 2..2505: reserved 2506: Restart is the command for a restart of the device. All non-volatile parameters re-main unchanged; all dynamic parameters are reset to their defaults. 2507..2711: reserved 2712: Communication Reset The bus address is set to its default address; another parameterization remains unchanged. The bus address is changed immediately regardless if the device is in cyclic data transfer state. The reset is not suspended up to a subsequent power cycle / warm start. The No_Add_Chg_Flag corresponding to the Set_Slave_Add service is cleared. 2713: Application and Communication Reset Combined Application Reset and Communication Reset 2714..65535: reserved
36	0xB015	IM_Descriptor	VisibleString(54)	R,W	54 characters long description
37	0xB016	LANGUAGE	VisibleString(2)	R,W	Language setting of the local user interface. The coding is according Alpha-2 of ISO639. Coding: “en”: English “de”: German “it”: Italian “fr”: French “es”: Spanish “pt”: Portuguese “ru”: Russian “zh”: Chinese “pl”: Polish “da”: Danish “sv”: Swedish “fi”: Finnish “nl”: Dutch “ja”: Japanese
38	0xB017	IM_Date	VisibleString(16)	R,W	Instalation date
39	0xB018	STARTUP_PARAM_VALIDITY	Unsigned8	R	Provides information if the cyclic master has sent startup parameters that has been declared as valid to be taken to adjust the device parameterization. Coding: 0: startup parameters are ignored 1: parameter set 1 of the startup parameters have to be considered by the device 2...127: reserved for profile use 128: manufacturer specific parameter set of startup parameters have to be considered by the device 129...255: reserved for future use
40	-	IDENT_NUMBER_SELECTOR	Unsigned8	R,W	Specifies which ident number is used Coding 0: PA profile 4 specific ident number 1: device specific ident number (81CB/81CC) 2..126: reserved for profile use 127: automatic adaption (default) 129: PA profile 3 specific (9700, 1 AI) 130: PA profile 3 specific (9701, 2 AI) 131: PA profile 3 specific (9702, 3 AI) 132: PA profile 3 specific (9742, 3 AI, 1 TOT) 133..255: reserved for future use
41	-	BUS_ADDRESS	Unsigned8	R	PROFIBUS slave address that is currently set. Used by the parameterization tool to create a complete snapshot of the device parameterization.
42	-	IDENT_NUMBER	Unsigned16	R	Current ident number that is used by the cyclic master when in cyclic data exchange. If the device is not in cyclic data exchange the default manufacturer specific ident number is returned.

DP index	PN index	Parameter Name	Data Type	Access	Annotation
43	-	BAUD_RATE	Unsigned8	R	Shows the current used baud rate. Coding: 0: 9.6 kbit/s 1: 19.2 kbit/s 2: 93.75 kbit/s 3: 187.5 kbit/s 4: 500 kbit/s 5: 1.5 Mbit/s 6: 3 Mbit/s 7: 6 Mbit/s 8: 12 Mbit/s 9: 31.25 kbit/s (MBP) 10..255: reserved for future use The PA variant returns always code 9. The DP variant does not support code 9 (31.25 kbit/s)
-	0xB019	IP_ADDRESS	OctetString(4)	R	Ip Address
-	0xB01A	SUBNET_MASK	OctetString(4)	R	Subnet Mask
-	0xB01B	DEFAULT_GATEWAY	OctetString(4)	R	Default Gateway
-	0xB01C	NAME_OF_STATION	OctetString(240)	R	Station Name 1...8
-	0xB01D	MAC_ADDRESS	OctetString(6)	R	Mac Address
44	0xB01E	WRITE_PROTECTION	Unsigned16	R	Information about active parameter protection. Coding: Bit 0: reserved for future use Bit 1: not applicable Bit 2: Password write protection enabled (CURRENT_ACCESS_LEVEL = RUP) Bit 3...7: reserved for profile use Bit 8...14: reserved for future use Bit 15: Custody transfer mode enabled
45	0xB01F	ALARM_DELAY	Unsigned16	R,W	Alarm delay suppression time
46	0xB020	UPDATE_EVENT_ACK	Unsigned8	R,W	Command to reset the update event flag in quality codes and the DIAGNOSIS parameter in case that manual acknowledge mode is enabled (UPDATE_EVENT_MODE) Coding: 0: no acknowledgement 1: reset update event flag and sets this parameter (UPDATE_EVENT_ACK) to zero. 2 ...255: reserved
47	0xB021	UPDATE_EVENT_MODE	Unsigned8	R,W	Holds the configuration for the behavior of the update event flag in all status bytes Coding: 0: auto-acknowledge after 20 seconds. 1: manual acknowledge by means of parameter UPDATE_EVENT_ACK 2..255: reserved
48	0xB022	NE107_COMMON	OctetString(6)	R	Detailed information of the device, bitwise coded. Allows setting of diagnostic flags specified by the NAMUR recommendation NE107 comprising common device diagnostics. The device type specific diagnostics are allocated to the respective transducer block (module/submodule) that characterizes the device type mainly
49	0xB023	LINK_NE107_COMMON	DS-69	R,W	Indicates / controls the reaction of the device on device specific diagnostic events.
50	0xB024	LATEST_CHANGE	VisibleString(16)	R,W	Date of the latest change of any device parameter with storage class static. If the device has a real time clock this parameter is set automatically. If not, the customer or a tool can write a date to document his latest change. Format used by the automatic update: YYYY-MM-DD HH:MM
51	0xB025	NE107_STATUS	Unsigned8	R	NAMUR status of the device as a summary of all measuring channels. Coding: 0: "Good", In all other cases (lowest priority 1: "Maintenance", DIA_MAINTENANCE is active or DIA_MAINTENANCE_DEMANDED is active 2: "Out of specification", DIA_OUT_OF_SPEC is active 3: "Function check", DIA_FUNCTION_CHECK is active 4: "Failure", DIA_MAINTENANCE_ALARM is active (highest priority) The most prior status shall be output. Derived from DIAGNOSIS
52	-	View_1		R	PROFIBUS parameter to read the following block parameters at once: • BLOCK_OBJECT • OrderID • SOFTWARE_REVISION • HARDWARE_REVISION • DEVICE_MAN_ID • DEVICE_ID • IM_Serial_Number • IM_Profile_ID • IM_Profile_Specific_Type

DP index	PN index	Parameter Name	Data Type	Access	Annotation
-	0xB026	View_1		R	PROFINET parameter to read the following block parameters at once: • BLOCK_OBJECT • CURRENT_MODE • OrderID • SOFTWARE_REVISION • HARDWARE_REVISION • DEVICE_MAN_ID • IM_Serial_Number • DIAGNOSIS • IM_Revision_Counter • IM_Profile_ID • IM_Profile_Specific_Type • STARTUP_PARAM_VALIDITY • IP_ADDRESS • SUBNET_MASK • DEFAULT_GATEWAY • NAME_OF_STATION • MAC_ADDRESS • WRITE_PROTECTION • NE107_COMMON • LATEST_CHANGE • NE107_STATUS
53	-	View_2		R	PROFIBUS parameter to read the following block parameters at once: • CURRENT_MODE • DIAGNOSIS • IM_Revision_Counter • STARTUP_PARAM_VALIDITY • BUS_ADDRESS • IDENT_NUMBER • BAUD_RATE • WRITE_PROTECTION • NE107_COMMON • LATEST_CHANGE • NE107_STATUS
-	0xB027	View_2		R,W	PROFINET parameter to read the following block parameters at once: • TARGET_MODE • IM_Tag_Function • IM_Tag_Location • IM_Descriptor • LANGUAGE • IM_Date • ALARM_DELAY • UPDATE_EVENT_MODE • LINK_NE107_COMMON
54	-	View_3		R,W	Parameter to read and write the following block parameters at once: • IM_Tag_Function • IM_Tag_Location • IM_Descriptor • LANGUAGE • IM_Date • IDENT_NUMBER_SELECTOR
55	-	View_4		R,W	Parameter to read and write the following block parameters at once: • TARGET_MODE • ALARM_DELAY • UPDATE_EVENT_MODE • LINK_NE107_COMMON
-	0xB028	STARTUP_RECORD		R,W	Parameter to read and write the following block parameters at once: • STARTUP_PARAM_VALIDITY • IM_Tag_Function • LANGUAGE • IM_Date • ALARM_DELAY • UPDATE_EVENT_MODE
69	0x0000	CURRENT_ACCESS_LEVEL	Unsigned8	R	Current access level of the acyclic connection. The access level is handled for each acyclic connection (MSAC1 and each MSAC2) independently. Coding: 0..1: reserved 2: Restricted User Privilege 3: End User Privilege (EUP). 4: Service User Privilege (SUP) 5..255: reserved

DP index	PN index	Parameter Name	Data Type	Access	Annotation
70	0x0001	DEFAULT_ACCESS_LEVEL	Unsigned8	R,W	Initial access level for an acyclic connection. Coding: 0..1: reserved 2: Restricted User Privilege 3: End User Privilege (EUP). 4..255: reserved
71	0x0002	LOGIN_END_USER	Unsigned16	R,W	Input of the end user PIN to change the current ACCESS_LEVEL of the acyclic connection. Valid range 0...9999 Reading this parameter indicates if end user privilege is granted (1) or not (0). Note that Service user privilege includes end user privilege.
72	0x0003	LOGIN_SERVICE_USER	Unsigned16	R,W	Input of the service user PIN to change the current ACCESS_LEVEL of the acyclic connection Valid range 0...9999 Reading this parameter indicates if service user privilege is granted (1) or not (0)
73	0x0004	END_USER_PIN	Unsigned16	R,W	Parameter to change the end user PIN. Only successful if the current access level is end user or service user. When reading this parameter 0xFFFF is returned and not the current PIN
74	0x0005	SERVICE_USER_PIN	Unsigned16	R,W	Parameter to change the service user PIN. Only successful if the current access level is service user. When reading this parameter 0xFFFF is returned and not the current PIN
-	0x0006	DeviceId	Unsigned16	R	PROFINET device identifier

Transducer blocks point 1/2

Measurement point 1 is represented by a Level radar transducer block according PA profile. The transducer block for measurement point 2 is a manufacturer specific block that shares the parameter indexes of those parameters that are common for both measurement points.

DP Index	PN Index	Parameter Name	Data Type	Access		Annotation
				Pt1	Pt2	
68	0xB000	BLOCK_OBJECT	DS-32	R		Constant block information
69	0xB001	CURRENT_MODE	Unsigned8	R		Fixed to automatic (8)
74	0xB006	LEVEL	101	R		Level value from point 1/2 in LEVEL_UNITS
75	0xB007	DISTANCE	101	R		Distance value from point 1/2 in LEVEL_UNITS
76	0xB008	LEVEL_UNITS	Unsigned16	R,W	R	Length unit that is used to access level values. Coding: 1010: m 1011: km 1012: cm 1013: mm 1014: µm 1015: nm 1016: pm 1017: Å 1018: ft 1019: in 1020: yd 1021: mile 1022: nautical mile 1995: customized unit
77	0xB009	UPPER_LEVEL_LIMIT	Float32	R		Lower level limit in LEVEL_UNITS
78	0xB00A	LOWER_LEVEL_LIMIT	Float32	R		Upper level limit in LEVEL_UNITS
79	0xB00B	NE107_RADAR	OctetString(9)	R	-	Not Supported
80	0xB00C	LINK_NE107_RADAR	DS-69	R,W	-	Not Supported
81	0xB00D	SET_PV_TO_ZERO	Unsigned8	R,W		Parameter to control a customer zero-point adjustment. Affects the flow value. Coding: 0: no action. This code is always returned when reading this parameter 1: Select factory adjustment values 2: Select field adjustment values (optional) 3: Perform and activate field adjustment with current process conditions. 4…255: reserved

82	0xB00E	View_1		R	-	Parameter to read the following block parameters at once: • BLOCK_OBJECT • CURRENT_MODE • LEVEL • DISTANCE • LEVEL_UNITS • UPPER_LEVEL_LIMIT • LOWER_LEVEL_LIMIT • NE_107_RADAR • SET_PV_TO_ZERO_STATUS
83	0xB00F	View_2		R,W	-	Parameter to read and write the following block parameters at once: • LEVEL_UNITS • LINK_NE107_RADAR
84	0xB010	SET_PV_TO_ZERO_STATUS	Unsigned8	R		Indicates the status of the zero-point adjustment action. Coding: 0: reserved 1: Factory adjustment is used 2: Field adjustment is used 3: Field adjustment with current process conditions is ongoing 4…255: reserved
94	0x0002	DISTANCE_LO_LIMIT	Float32	R		Lower distance limit in LENGTH_UNITS
95	0x0003	DISTANCE_HI_LIMIT	Float32	R		Upper volume limit in LENGTH_UNITS
96	0x0004	SPACE	101	R		Space value in LEVEL_UNITS
97	0x0005	SPACE_LO_LIMIT	Float32	R		Lower space limit in LENGTH_UNITS
98	0x0006	SPACE_HI_LIMIT	Float32	R		Upper space limit in LENGTH_UNITS
99	0x0007	VOLUME	101	R		Volume value in VOLUME_UNITS
100	0x0008	VOLUME_UNITS	Unsigned16	R,W	R	Volume unit that is used to access volume values. Coding: 1034: m^3 1035: dm^3 1036: cm^3 1037: mm^3 1038: l 1039: cl 1040: ml 1041: hl 1042: in^3 1043: ft^3 1044: yd^3 1045: $mile^3$ 1046: pint 1047: quart 1048: gal 1049: i.gal 1050: bush 1051: BBL 1052: BBL (liq) 1517: kl 1570: fl oz (US) 1572: af 1641: BBL (fed) 1995: customized unit
103	0x000B	VOLUME_LO_LIMIT	Float32	R		Lower volume limit in VOLUME_UNITS
104	0x000C	VOLUME_HI_LIMIT	Float32	R		Upper volume limit in VOLUME_UNITS
105	0x000D	HEAD	101	R		Head value in LEVEL_UNITS
106	0x000E	HEAD_LO_LIMIT	Float32	R		Lower head limit in LEVEL_UNITS
107	0x000F	HEAD_HI_LIMIT	Float32	R		Upper head limit in LEVEL_UNITS
108	0x0010	VOLUME_FLOW	101	R		Volume flow in VOLUME_FLOW_UNITS
109	0x0011	VOLUME_FLOW_UNITS	Unsigned16	R,W	R	Volume flow unit that is used to access volume flow values. Coding: 1347: m^3/s 1348: m^3/min 1349: m^3/h 1350: m^3/d 1351: l/s 1352: l/min 1353: l/h 1354: l/d 1355: Ml/d 1356: ft^3/s 1357: ft^3/min 1358: ft^3/h 1359: ft^3/d 1362: gal/s 1363: gal/min 1364: gal/h 1365: gal/d 1366: Mgal/d 1367: i.gal/s

						1368: i.gal/min 1369: i.gal/h 1370: i.gal/d 1371: BBL/s 1372: BBL/min 1373: BBL/h 1374: BBL/d 1448: µgal/s 1449: mgal/s 1450: kgal/s 1451: Mgal/s 1452: µgal/min 1453: mgal/min 1454: kgal/min 1455: Mgal/min 1456: µgal/h 1457: mgal/h 1458: kgal/h 1459: Mgal/h 1460: µgal/d 1461: mgal/d 1462: kgal/d 1463: µi.gal/s 1464: mi.gal/s 1465: ki.gal/s 1466: Mi.gal/s 1467: µi.gal/min 1468: mi.gal/min 1469: ki.gal/min 1470: Mi.gal/min 1471: µi.gal/h 1472: mi.gal/h 1473: ki.gal/h 1474: Mi.gal/h 1475: µi.gal/d 1476: mi.gal/d 1477: ki.gal/d 1478: Mi.gal/d 1479: µBBL/s 1480: mBBL/s 1481: kBBL/s 1482: MBBL/s 1483: µBBL/min 1484: mBBL/min 1485: kBBL/min 1486: MBBL/min 1487: µBBL/h D1942 1488: mBBL/h 1489: kBBL/h 1490: MBBL/h 1491: µBBL/d 1492: mBBL/d 1493: kBBL/d 1494: MBBL/d 1495: µm³/s 1496: mm³/s 1497: km³/s 1498: Mm³/s 1499: µm³/min 1500: mm³/min 1501: km³/min 1502: Mm³/min 1503: µm³/h 1504: mm³/h 1505: km³/h 1506: Mm³/h 1507: µm³/d 1508: mm³/d 1509: km³/d 1510: Mm³/d 1511: cm³/s 1512: cm³/min 1513: cm³/h 1514: cm³/d 1518: kl/min 1519: kl/h 1520: kl/d 1563: ml/min 1577: ml/s 1578: ml/h 1579: ml/d 1580: af/s 1581: af/min 1582: af/h

						1583: af/d 1584: fl oz (US)/s 1585: fl oz (US)/min 1586: fl oz (US)/h 1587: fl oz (US)/d 1633: hl/s 1634: hl/min 1635: hl/h 1636: hl/d 1637: BBL/s 1638: BBL/min 1639: BBL/h 1640: BBL/d 1642: BBL/s 1643: BBL/min 1644: BBL/h 1645: BBL/d 1995: customized unit 32768: bush/s 32769: bush/min 32770: bush/h 32771: bush/d 32772: yd^3/s 32773: yd^3/min 32774: yd^3/h 32775: yd^3/d 32776: in^3/s 32777: in^3/min 32778: in^3/h 32779: in^3/d 32780: Mft^3/d
112	0x0014	VOLUME_FLOW_LO_LIMIT	Float32	R		Lower volume flow limit in VOLUME_FLOW_UNITS Fixed to 0.0
113	0x0015	VOLUME_FLOW_HI_LIMIT	Float32	R		Upper volume flow limit in VOLUME_FLOW_UNITS
114	0x0016	LOW_FLOW_CUT_OFF	Float32	R,W		Low-flow cut-off for volume flow. The flow value is set to zero if the value of the flow value is less than LOW_FLOW_CUT_OFF in VOLUME_FLOW_UNITS
115	0x0017	TEMPERATURE	101	R		Sensor temperature in TEMPERATURE_UNITS
116	0x0018	TEMPERATURE_UNITS	Unsigned16	R,W	R	Temperature unit that is used by temperature values Coding: 1000: K 1001: °C 1002: °F 1003: °R
117	0x0019	TEMPERATURE_LO_LIMIT	Float32	R		Lower sensor temperature limit in TEMPERATURE_UNITS
118	0x001A	TEMPERATURE_HI_LIMIT	Float32	R		Upper medium temperature limit for point 1 in TEMPERATURE_UNITS
119	0x001B	LEVEL_DIFFERENCE	101	-	R	Difference between point 1 and point 2 level measurement in LEVEL_UNITS
120	0x001C	LEVEL_DIFFERENCE_LO_LIMIT	Float32	-	R	Lower level difference limit in LEVEL_UNITS Fixed to 0.0
121	0x001D	LEVEL_DIFFERENCE_HI_LIMIT	Float32	-	R	Upper level difference limit in LEVEL_UNITS
122	0x001E	LEVEL_AVERAGE	101	-	R	Average of point 1 and point 2 level measurement in LEVEL_UNITS
123	0x001F	LEVEL_AVERAGE_LO_LIMIT	Float32	-	R	Lower level average limit in LEVEL_UNITS
124	0x0020	LEVEL_AVERAGE_HI_LIMIT	Float32	-	R	Upper level average limit in LEVEL_UNITS
125	0x0021	AUX_TEMPERATURE	101	R	-	Auxiliary temperature in TEMPERATURE_UNITS
126	0x0022	AUX_TEMPERATURE_LO_LIMIT	Float32	R	-	Lower auxiliary temperature limit in TEMPERATURE_UNITS
127	0x0023	AUX_TEMPERATURE_HI_LIMIT	Float32	R	-	Upper auxiliary temperature limit in TEMPERATURE_UNITS
-	0x0024	STARTUP_RECORD_2	Unsigned16(4)	R,W	-	Device specific startup parameters that can be written in one request. Contains the following parameters: • LEVEL_UNITS • VOLUME_UNITS • VOLUME_FLOW_UNITS • TEMPERATURE_UNITS
128	0x0025	RELAY_STATES	DS-104	R	-	Switching states of relay 1…6 used as input for the binary input function block. Bit 0: Relay 1 Bit 1: Relay 2 Bit 2: Relay 3 Bit 3: Relay 4 Bit 4: Relay 5 Bit 5: Relay 6 Bit 6…7: Reserved

Slot 1: AI Level 1

DP Index	PN Index	Parameter Name	Data Type	Access	Annotation
16	0xB000	BLOCK_OBJECT	DS-32	R	Constant block information
17	0xB001	CURRENT_MODE	Unsigned8	R	Follows the target mode of the Physical Block Coding: 0..7: reserved 8: Automatic 9..127: reserved 128: Out of service 129..255: reserved
22	0xB006	PROCESS_VALUE	DS-101	R	Process value in PROCESS_VALUE_UNITS with quality code
23	0xB007	PROCESS_VALUE_UNITS	Unsigned16	R	Read-only copy of the transducer block unit setting
24	0xB008	DAMPING	Float32	R,W	Low-pass filter of the input value. Value in seconds. Valid range: 0...100 s
26	-	INPUT_SELECTOR	Unsigned16	R,W	Constant transducer reference information. Identical to the Parent_Class of the BLOCK_OBJECT
-	0xB00A	INPUT_SELECTOR	Unsigned16(2)	R,W	First element holds the Parent_Class of the BLOCK_OBJECT Second element is fixed to 0
27	0xB00B	SIMULATE_ENABLE	Boolean	R,W	Switch to enable or disable simulation of PROCESS_VALUE. This could be used to verify the PLC program behavior. Coding: 0: disabled 1…255: enabled
28	0xB00C	SIMULATE_VALUE	Float32	R,W	Value written by an operator to simulate the value of PROCESS_VALUE.
29	0xB00D	SIMULATE_STATUS	Unsigned8	R,W	Value written by an operator to simulate the status of PROCESS_VALUE.
30	0xB00E	PROCESS_VARIABLE	Unsigned8	R	Identifies the measured value type. Code is the Parent_Class extracted from the BLOCK_OBJECT parameter of this Function Block.
31	0xB00F	View_1		R	Read-only parameter to read • BLOCK_OBJECT • CURRENT_MODE • PROCESS_VALUE • PROCESS_VALUE_UNITS • DAMPING • INPUT_SELECTOR • SIMULATE_ENABLE • SIMULATE_VALUE • SIMULATE_STATUS • PROCESS_VARIABLE
40	0x0000	PROCESS_VALUE_UNITS_TEXT	VisibleString(8)	R	Textual representation of the current unit settings made by PROCESS_VALUE_UNITS. This parameter also handles the custom unit strings.
41	0x0001	PROCESS_VALUE_MEASURING_RANGE	Float32(2)	R	Measuring range of the PROCESS_VALUE in PROCESS_VALUE_UNITS First float value = upper range Second Float value = lower range

Slot 2: AI Distance 1

see AI Level 1

Slot 3: AI Space 1

see AI Level 1

Slot 4: AI Volume 1

see AI Level 1

Slot 5: AI Head 1

see AI Level 1

Slot 6: AI Volume flow 1

see AI Level 1

Slot 7: AI Sensor temperature 1

see AI Level 1

Slot 8: Totalizer block 1

DP Index	PN Index	Parameter Name	Data Type	Access	Annotation
16	0xB000	BLOCK_OBJECT	DS-32	R	Constant block information used to identify the block type
17	0xB001	CURRENT_MODE	Unsigned8	R	Set to “Out of service” if the TARGET_MODE parameter of the Physical Block is set to “Out of service”. Coding: 0..7: reserved 8: Automatic 9..127: reserved 128: Out of Service 129..255: reserved
22	0xB006	TOTAL	101	R	32-bit floating point process value with quality code. The value follows TOTAL_UNITS
23	0xB007	TOTAL_UNITS	Unsigned16	R,W	Influences the TOTAL,TOTAL_DOUBLE and PRESET_TOT value. The INPUT_SELECTOR defines the available physical unit codes that are allowed e.g. INPUT_SELECTOR is set to volume flow, the TOTAL_UNITS only accepts volume flow units. Coding (Volume units): 1034: m^3 1035: dm^3 1036: cm^3 1037: mm^3 1038: l 1039: cl 1040: ml 1041: hl 1042: in^3 1043: ft^3 1044: yd^3 1045: $mile^3$ 1048: gal 1046: pint 1047: quart 1049: i.gal 1050: bush 1051: BBL 1052: BBL (liq) 1517: kl 1570: fl oz (US) 1572: af 1641: BBL (fed) 1995: customized unit
24	0xB008	SET_TOT	Unsigned8	R,W	Coding: 0: reserved 1: RESET; assign value „0“ to Totalizer 2: PRESET; assign value of PRESET_TOT to Totalizer 3: HOLD; totalization stopped 4: TOTALIZE; „normal“ operation of the Totalizer 5..255: reserved
26	0xB00A	FAIL_TOT	Unsigned8	R,W	Coding: 0: RUN; totalization is continued using the input values despite the BAD status. The status is ignored. 1: HOLD; totalization is stopped during occurrence of BAD status of incoming values. 2: MEMORY; totalization is continued based on the last incoming value with GOOD status before the first occurrence of BAD status. 3..255: reserved
27	0xB00B	PRESET_TOT	Float32	R,W	This 32-bit floating point value is used as a preset for the internal value of the FB algorithm. The value gets effective if using the SET function. This value follows TOTAL_UNITS.
28	0xB00C	INPUT_SELECTOR	Unsigned8	R,W	Coding: 0: reserved 1: Volume flow (point 1) 2..130: reserved 131: Volume flow (point 2) 132: Pumped volume flow (point 1) 133: Pumped volume flow (point 2) 134..255: reserved
29	0xB00D	TOTAL_DOUBLE	100	R	64-bit floating point process value with quality code. The value follows TOTAL_UNITS

DP Index	PN Index	Parameter Name	Data Type	Access	Annotation
30	0xB00E	SIMULATE_ENABLE	Boolean	R,W	Switch to enable or disable simulation of TOTAL and TOTAL_DOUBLE. This could be used to verify the PLC program behavior. Coding: 0: disabled 1…255: enabled
31	0xB00F	SIMULATE_VALUE	Float32	R,W	Value written by an operator to simulate the value of TOTAL and TOTAL_DOUBLE.
32	0xB010	SIMULATE_STATUS	Unsigned8	R,W	Value written by an operator to simulate the status of TOTAL and TOTAL_DOUBLE.
33	0xB011	PROCESS_VARIABLE	Unsigned8	R	Identifies the measured value type. Coding depends on the INPUT_SELECTOR: Fixed to 40 (Volume)
34	0xB012	View_1		R	Read-only parameter to read the following block parameters at once • BLOCK_OBJECT • CURRENT_MODE • TOTAL_DOUBLE • TOTAL_UNITS • SET_TOT • MODE_TOT • FAIL_TOT • PRESET_TOT • INPUT_SELECTOR • SIMULATE_ENABLE • SIMULATE_VALUE • SIMULATE_STATUS • PROCESS_VARIABLE
35	0xB013	View_2		R,W	Parameter to read and write the following block parameters at once • SET_TOT • MODE_TOT • FAIL_TOT • PRESET_TOT • INPUT_SELECTOR
44	0x0000	TOTAL_UNITS_TEXT	VisibleString(8)	R	Textual unit representation of the current TOTAL_UNITS parameter settings.

Slot 22: Binary input

DP Index	PN Index	Parameter Name	Data Type	Access	Annotation
16	0xB000	BLOCK_OBJECT	DS-32	R	Constant block information
17	0xB001	CURRENT_MODE	Unsigned8	R	Follows the target mode of the Physical Block Coding: 0..7: Reserved 8: Automatic 9..127: Reserved 128: Out of service 129..255: Reserved
22	0xB006	OUT_B	DS-104	R	Relay stat information
24	0xB008	SIMULATE_ENABLE	Boolean	R,W	Switch to enable or disable simulation of OUT_D. This could be used to verify the PLC program behavior. Coding: 0: Disabled 1…255: Enabled
25	0xB009	SIMULATE_VALUE	Unsigned8	R,W	Value written by an operator to simulate the value of OUT_D.
26	0xB00A	SIMULATE_STATUS	Unsigned8	R,W	Value written by an operator to simulate the status of OUT_D.
27	0xB00B	View_1		R	Read-only parameter to read • BLOCK_OBJECT • CURRENT_MODE • OUT_D • SIMULATE_ENABLE • SIMULATE_VALUE • SIMULATE_STATUS

Manufacture specific parameter access

It is possible to access all user parameters in SITRANS LT500 via acyclic services.

PROFIBUS uses a slot/index addressing scheme to read/write parameters. Slot and index are encoded as unsigned8. SITRANS LT500 uses a simple mapping mechanism between Modbus register (that uniquely identify each device parameter) and PROFIBUS slot/index. To access device parameters via PROFIBUS the following formula is used:

Slot	Round_down (Modbus_register / 250) + 30
Index	Modbus_register modulo 250

Example: Modbus register 3002 is accessible via Slot 42, Index 2

Refer to the Modbus data map for the full list of accessible Modbus registers.