

# SIEMENS

## SIMATIC

### Process Control System PCS 7 Released modules (V9.0 SP1)

Offer overview

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valid for PCS 7 as of V9.0 SP1

## Legal information

### Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

|                                                                                                        |
|--------------------------------------------------------------------------------------------------------|
| <b>⚠ DANGER</b>                                                                                        |
| indicates that death or severe personal injury <b>will</b> result if proper precautions are not taken. |

|                                                                                                       |
|-------------------------------------------------------------------------------------------------------|
| <b>⚠ WARNING</b>                                                                                      |
| indicates that death or severe personal injury <b>may</b> result if proper precautions are not taken. |

|                                                                                      |
|--------------------------------------------------------------------------------------|
| <b>⚠ CAUTION</b>                                                                     |
| indicates that minor personal injury can result if proper precautions are not taken. |

|                                                                                |
|--------------------------------------------------------------------------------|
| <b>NOTICE</b>                                                                  |
| indicates that property damage can result if proper precautions are not taken. |

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

### Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

### Proper use of Siemens products

Note the following:

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>⚠ WARNING</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed. |

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We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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## Security information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, systems, machines, and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens' products and solutions constitute one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place.

For additional information on industrial security measures that may be implemented, please visit:

<https://www.siemens.com/industrialsecurity>

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Security RSS Feed under

<https://www.siemens.com/industrialsecurity>.



# ET 200SP HA

# 2

## 2.1 AI

### AI

| Product name                        | Article no.         | Brief description                                                              | Properties<br>(Page 129) |        |   |   |
|-------------------------------------|---------------------|--------------------------------------------------------------------------------|--------------------------|--------|---|---|
|                                     |                     |                                                                                | F                        | C      | R | T |
| AI-DI16/DQ16 x 24VDC<br>HART HA     | 6DL1 133-6EW00-0PH1 | Input/output module<br>configured channel-by-channel AI-DI/DQ                  | W<br>P                   | M<br>O | C |   |
| AI16 x I 2-wire HART HA             | 6DL1 134-6TH00-0PH1 | Analog input module<br>16 AI; 0/4 ... 20 mA, 0 ... 10 mA; 16-bit; with<br>HART | W<br>P                   | M<br>O | C |   |
| AI16 x TC/8xRTD 2-/3-/4-<br>wire HA | 6DL1 134-6JH00-0PH1 | Analog input module<br>16 AI TC, 8 AI RTD; 16-bit                              | W<br>P                   | M<br>O | C |   |

## 2.2 AQ

### AQ

| Product name    | Article no.         | Brief description                                                              | Properties<br>(Page 129) |        |   |   |
|-----------------|---------------------|--------------------------------------------------------------------------------|--------------------------|--------|---|---|
|                 |                     |                                                                                | F                        | C      | R | T |
| AQ8 x I HART HA | 6DL1 135-6TF00-0PH1 | Analog output module<br>8 AQ; 0/4 ... 20 mA, 0 ... 10 mA; 16-bit; with<br>HART | W<br>P                   | M<br>O | C |   |

## 2.3 DI

### DI

| Product name    | Article no.         | Brief description                             | Properties<br>(Page 129) |        |   |   |
|-----------------|---------------------|-----------------------------------------------|--------------------------|--------|---|---|
|                 |                     |                                               | F                        | C      | R | T |
| DI16 x 24VDC HA | 6DL1 131-6BH00-0PH1 | Digital input module<br>16 DI; 24 V DC        | W<br>P                   | M<br>O | C |   |
| DI16 x NAMUR HA | 6DL1 131-6TH00-0PH1 | Digital input module<br>16 DI; 24 V DC; NAMUR | W<br>P                   | M<br>O | C |   |

2.5 IM

| Product name        | Article no.         | Brief description                                             | Properties (Page 129) |        |   |   |
|---------------------|---------------------|---------------------------------------------------------------|-----------------------|--------|---|---|
|                     |                     |                                                               | F                     | C      | R | T |
| DI8 x 230VAC HA     | 6DL1 131-6GF00-0PK0 | Digital input module<br>8 DI; electrically isolated; 230 V AC | W<br>P                | M<br>O |   |   |
| DI8 x 24..125VDC HA | 6DL1 131-6DF00-0PK0 | Digital input module<br>8 DI; 24 ... 125 V DC                 | W<br>P                | M<br>O |   |   |

2.4 DQ

DQ

| Product name                     | Article no.         | Brief description                                                                         | Properties (Page 129) |        |   |   |
|----------------------------------|---------------------|-------------------------------------------------------------------------------------------|-----------------------|--------|---|---|
|                                  |                     |                                                                                           | F                     | C      | R | T |
| DQ16 x 24VDC/0.5A HA             | 6DL1 132-6BH00-0PH1 | Digital output module<br>16 DQ; 24 V DC                                                   | W<br>P                | M<br>O | C |   |
| RQ4 x 120VDC-230VAC/<br>5A CO HA | 6DL1 132-6HD50-0PK0 | Digital output module<br>4 DQ; electrically isolated; 24 ... 120 V DC,<br>24 ... 230 V AC | W<br>P                | M<br>O |   |   |

2.5 IM

IM

| Product name              | Article no.         | Brief description                                                             | Properties (Page 129) |   |   |   |
|---------------------------|---------------------|-------------------------------------------------------------------------------|-----------------------|---|---|---|
|                           |                     |                                                                               | F                     | C | R | T |
| ET 200SP HA<br>IM155-6 PN | 6DL1 155-6AU00-0PM0 | PROFINET Interface Module IM155-6 PN<br>operational with up to 56 I/O modules | W<br>P                | S | X |   |

## 2.6 BusAdapter

### BusAdapter

| Product name | Article no.         | Brief description                                                     | Properties<br>(Page 129) |   |   |   |
|--------------|---------------------|-----------------------------------------------------------------------|--------------------------|---|---|---|
|              |                     |                                                                       | F                        | C | R | T |
| BA 2xRJ45    | 6DL1 193-6AR00-0AA0 | PROFINET BusAdapter with standard Ethernet sockets (BA 2xRJ45)        | W<br>P                   |   |   |   |
| BA 2xFC      | 6DL1 193-6AF00-0AA0 | PROFINET BusAdapter with Fast connect Ethernet connector (BA 2xFC)    | W<br>P                   |   |   |   |
| BA 2xLC      | 6DL1 193-6AG00-0AA0 | PROFINET BusAdapter with fiber-optic connection glass fiber (BA 2xLC) | W<br>P                   |   |   |   |



# ET 200M

## 3.1 IM

### Approved combinations

See the "SIMATIC Distributed I/O Device ET 200M" manual for the approved combinations of interface modules and bus modules and for the available functions.

| Product name                                                    | Article no.<br>Firmware version | Brief description                                                                                                                                    | Properties<br>(Page 129) |   |   |           |
|-----------------------------------------------------------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                                                 |                                 |                                                                                                                                                      | F                        | C | R | T         |
| ET 200M-<br>IM 153-1                                            | 6ES7 153-1AA02-0XB0             | Bus interface for S7-300 SMs,<br>FM 350 to FM 352, FM 355, CP 341,<br>module replacement during operation                                            | W                        | X |   | 08/<br>00 |
| ET 200M-<br>IM 153-1,<br>extended environ-<br>mental conditions | 6ES7 153-1AA82-0XB0             | Bus interface for S7-300 SMs,<br>extended environmental conditions                                                                                   | W                        | X |   | 10/<br>05 |
| ET 200M-<br>IM 153-1                                            | 6ES7 153-1AA03-0XB0             | Bus interface for S7-300 SMs,<br>FM 350 to FM 352, FM 355, CP 341,<br>module replacement during operation                                            | W                        | X |   |           |
| ET 200M-<br>IM 153-1,<br>extended environ-<br>mental conditions | 6ES7 153-1AA83-0XB0             | Bus interface for S7-300 SMs,<br>extended environmental conditions                                                                                   | W                        | X |   | 11/<br>03 |
| ET 200M-<br>IM 153-2                                            | 6ES7 153-2AA01-0XB0             | Bus interface for S7-300 SMs,<br>FMs (except FM 356-4),<br>module replacement during operation                                                       | W                        | X |   | 04/<br>00 |
| ET 200M-<br>IM 153-2                                            | 6ES7 153-2AA02-0XB0             | Bus interface for S7-300 SMs,<br>FMs (except FM 356-4),<br>module replacement during operation                                                       | W                        | X |   | 06/<br>04 |
| ET 200M-<br>IM 153-2                                            | 6ES7 153-2BA00-0XB0<br>V3.x     | Bus interface for S7-300 SMs,<br>FMs (except FM 356-4),<br>module replacement during operation,<br>extension of process control functions            | W                        | S | X | 07/<br>06 |
| ET 200M-<br>IM 153-2                                            | 6ES7 153-2BA01-0XB0<br>V4.x     | Bus interface for S7-300 SMs,<br>FMs (except FM 356-4),<br>module replacement during operation,<br>extension of process control functions            | W                        | S | X | 10/<br>09 |
| ET 200M-<br>IM 153-2                                            | 6ES7 153-2BA81-0XB0<br>V4.x     | Bus interface for S7-300 SMs, (outdoor),<br>FMs (except FM 356-4),<br>module replacement during operation,<br>extension of process control functions | W                        | S | X | 12/<br>10 |

3.2 Accessories

| Product name           | Article no.<br>Firmware version | Brief description                                                                                                                                                                 | Properties<br>(Page 129) |   |   |       |
|------------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-------|
|                        |                                 |                                                                                                                                                                                   | F                        | C | R | T     |
| ET 200M-IM 153-2       | 6ES7 153-2BA02-0XB0<br>V5.x     | Bus interface for S7-300 SMs, FMs (except FM 356-4), module replacement during operation, extension of process control functions, up to 12 I/O modules can be operated            | W                        | S | X | 01/16 |
| ET 200M-IM 153-2       | 6ES7 153-2BA82-0XB0<br>V5.x     | Bus interface for S7-300 SMs, (outdoor), FMs (except FM 356-4), module replacement during operation, extension of process control functions, up to 12 I/O modules can be operated | W                        | S | X | 10/16 |
| ET 200M-IM 153-2 FO    | 6ES7 153-2AB01-0XB0             | Bus interface for S7-300 SMs, with fiber optics, FMs (except FM 356-4), module replacement during operation                                                                       | W                        | X |   | 01/03 |
| ET 200M-IM 153-2 FO    | 6ES7 153-2BB00-0XB0<br>V3.x     | Bus interface for S7-300 SMs, with fiber optics, FMs (except FM 356-4), module replacement during operation, extension of process control functions                               | W                        | S | X | 10/06 |
| ET 200M-IM 153-4 PN HF | 6ES7 153-4BA00-0XB0<br>V4.x     | Bus interface for S7-300 SMs, with PROFINET connection; supports failsafe and HART module, PN system redundancy                                                                   | W<br>P                   |   |   |       |
| ET 200M-IM 153-2       | 6ES7 153-2BA70-0XB0             | Bus interface for S7-300 SMs (Outdoor); FMs (except FM 356-4), module replacement during operation, up to 12 I/O modules can be operated                                          | W                        | S | X |       |
| ET 200M-IM 153-2       | 6ES7 153-2BA10-0XB0             | Bus interface for S7-300 SMs, FMs (except FM356-4), module replacement during operation, extension of process control functions, up to 12 I/O modules can be operated             | W                        | S | X |       |

### 3.2 Accessories

#### Approved combinations

See the "SIMATIC Distributed I/O Device ET 200M" manual for the approved combinations of interface modules and bus modules and for the available functions.

| Product name | Article no.         | Brief description                           | Properties<br>(Page 129) |   |   |   |
|--------------|---------------------|---------------------------------------------|--------------------------|---|---|---|
|              |                     |                                             | F                        | C | R | T |
| Partition    | 6ES7 195-1KA00-0XA0 | Ex partition for ET 200M                    |                          |   |   |   |
| Bus module   | 6ES7 195-7HA00-0XA0 | Active bus module for ET 200M IM 153; PS/IM |                          |   |   |   |



| Product name           | Article no.         | Brief description                                                      | Properties<br>(Page 129) |   |   |           |
|------------------------|---------------------|------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                        |                     |                                                                        | F                        | C | R | T         |
| Bus module             | 6ES7 195-7HB00-0XA0 | Active bus module for ET 200M IM 153; 2x 40 mm                         |                          |   |   |           |
| Bus module             | 6ES7 195-7HC00-0XA0 | Active bus module for ET 200M IM 153; 1x 80 mm                         |                          |   |   |           |
| BM IM/IM               | 6ES7 195-7HD00-0XA0 | Active bus module for ET 200M IM 153; IM/IM for redundant IM operation |                          |   |   | 07/<br>04 |
| BM IM/IM               | 6ES7 195-7HD10-0XA0 | Active bus module for ET 200M IM 153; IM/IM for redundant IM operation |                          |   |   |           |
| F separator bus module | 6ES7 195-7HG00-0XA0 | F separator bus module for ET 200M                                     |                          |   |   |           |
| F separator module     | 6ES7 195-7KF00-0XA0 | F separator module for ET 200M                                         |                          |   |   |           |



## Compact field unit

### 4.1 Compact field unit

#### Compact field unit

| Product name          | Article no.         | Brief description                                                                                                                                                                                                                                                        | Properties<br>(Page 129) |        |   |   |
|-----------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------|---|---|
|                       |                     |                                                                                                                                                                                                                                                                          | F                        | C      | R | T |
| Compact field unit PA | 6ES7 655-5PX11-0XX0 | CFU PA Compact Field Unit <ul style="list-style-type: none"> <li>• 8 fieldbus connections for PA field devices</li> <li>• 8 freely configurable channels (digital inputs and outputs)</li> </ul> Connection via PROFINET, use up to Ex Zone 2; MRP; system redundancy S2 | W<br>P                   | X<br>S |   |   |

### 4.2 BusAdapter

#### BusAdapter

| Product name | Article no.         | Brief description                                                     | Properties<br>(Page 129) |   |   |   |
|--------------|---------------------|-----------------------------------------------------------------------|--------------------------|---|---|---|
|              |                     |                                                                       | F                        | C | R | T |
| BA 2xRJ45    | 6DL1 193-6AR00-0AA0 | PROFINET BusAdapter with standard Ethernet sockets (BA 2xRJ45)        | W<br>P                   |   |   |   |
| BA 2xFC      | 6DL1 193-6AF00-0AA0 | PROFINET BusAdapter with Fast connect Ethernet connector (BA 2xFC)    | W<br>P                   |   |   |   |
| BA 2xLC      | 6DL1 193-6AG00-0AA0 | PROFINET BusAdapter with fiber-optic connection glass fiber (BA 2xLC) | W<br>P                   |   |   |   |



# ET 200PA SMART

# 5

## 5.1 AI

| Product name | Article no.         | Brief description                                                                                     | Properties<br>(Page 129) |   |   |   |
|--------------|---------------------|-------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|              |                     |                                                                                                       | F                        | C | R | T |
| AI8 Diag     | 6ES7 650-8AK60-0AA0 | Analog input module<br>8 AI; 16 Bit<br>0/4...20mA; with diagnostics                                   | W<br>SM                  | O | C |   |
| AI8 Diag     | 6ES7 650-8AK60-1AA0 | Analog input module<br>8 AI; 16 Bit<br>0/4...20mA; with diagnostics; version with protective coating  | W<br>SM                  | O | C |   |
| AI16 Diag    | 6ES7 650-8AK70-0AA0 | Analog input module<br>16 AI; 16 Bit<br>0/4...20mA; with diagnostics                                  | W<br>SM                  | O | C |   |
| AI16 Diag    | 6ES7 650-8AK70-1AA0 | Analog input module<br>16 AI; 16 Bit<br>0/4...20mA; with diagnostics; version with protective coating | W<br>SM                  | O | C |   |
| AI TC/RTD    | 6ES7 650-8AR60-0AA0 | Analog input module<br>8 AI TC, 4 AI RTD; 16 Bit; with diagnostics                                    | W<br>SM                  | O | G |   |
| AI TC/RTD    | 6ES7 650-8AR60-1AA0 | Analog input module<br>8 AI TC, 4 AI RTD; 16 Bit; with diagnostics; version with protective coating   | W<br>SM                  | O | G |   |

## 5.2 AO

| Product name | Article no.         | Brief description                                                               | Properties<br>(Page 129) |   |   |   |
|--------------|---------------------|---------------------------------------------------------------------------------|--------------------------|---|---|---|
|              |                     |                                                                                 | F                        | C | R | T |
| AO8 Diag     | 6ES7 650-8BK60-0AA0 | Analog output module<br>8 AO; with diagnostics                                  | W<br>SM                  | O | C |   |
| AO8 Diag     | 6ES7 650-8BK60-1AA0 | Analog output module<br>8 AO; with diagnostics; version with protective coating | W<br>SM                  | O | C |   |

### 5.3 DI

| Product name | Article no.         | Brief description                                                                         | Properties<br>(Page 129) |   |   |   |
|--------------|---------------------|-------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|              |                     |                                                                                           | F                        | C | R | T |
| DI32         | 6ES7 650-8DK80-0AA0 | Digital input module<br>32 DI; DC 24 V                                                    | W<br>SM                  | O | M |   |
| DI32         | 6ES7 650-8DK80-1AA0 | Digital input module<br>32 DI; DC 24 V; version with protective coating                   | W<br>SM                  | O | M |   |
| DI16         | 6ES7 650-8DK70-0AA0 | Digital input module<br>16 DI; DC 24 V; with diagnostics                                  | W<br>SM                  | O | C |   |
| DI16         | 6ES7 650-8DK70-1AA0 | Digital input module<br>16 DI; DC 24 V; with diagnostics; version with protective coating | W<br>SM                  | O | C |   |

### 5.4 DO

| Product name | Article no.         | Brief description                                                                                  | Properties<br>(Page 129) |   |   |   |
|--------------|---------------------|----------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|              |                     |                                                                                                    | F                        | C | R | T |
| DO32         | 6ES7 650-8EK80-0AA0 | Digital output module<br>32 DO; DC 24 V / 0.5 A                                                    | W<br>SM                  | O | M |   |
| DO32         | 6ES7 650-8EK80-1AA0 | Digital output module<br>32 DO; DC 24 V / 0.5 A; version with protective coating                   | W<br>SM                  | O | M |   |
| DO16         | 6ES7 650-8EK70-0AA0 | Digital output module<br>16 DO; DC 24 V / 0.5 A; with diagnostics                                  | W<br>SM                  | O | C |   |
| DO16         | 6ES7 650-8EK70-1AA0 | Digital output module<br>16 DO; DC 24 V / 0.5 A; with diagnostics; version with protective coating | W<br>SM                  | O | C |   |

### 5.5 IM

| Product name | Article no.<br>Firmware version | Brief description                                                                  | Properties<br>(Page 129) |   |   |   |
|--------------|---------------------------------|------------------------------------------------------------------------------------|--------------------------|---|---|---|
|              |                                 |                                                                                    | F                        | C | R | T |
| IM 650-8     | 6ES7 650-8PH00-0AA0             | Interface module<br>connection for ET 200PA SMART                                  | W                        | S | X |   |
| IM 650-8     | 6ES7 650-8PH00-1AA0             | Interface module<br>connection for ET 200PA SMART; version with protective coating | W                        | S | X |   |

## 5.6 Accessories

### Accessories

| Product name     | Article no.         | Brief description                                                                       | Properties<br>(Page 129) |   |   |   |
|------------------|---------------------|-----------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                  |                     |                                                                                         | F                        | C | R | T |
| Bus module PS/IM | 6ES7 650-8PA00-0AA0 | Backplane bus module for power supply and IM 650-8                                      |                          |   |   |   |
| Bus module PS/IM | 6ES7 650-8PA00-1AA0 | Backplane bus module for power supply and IM 650-8 version with protective coating      |                          |   |   |   |
| Bus module IM/IM | 6ES7 650-8PB00-0AA0 | Backplane bus module for 2 x IM 650-8 redundant                                         |                          |   |   |   |
| Bus module IM/IM | 6ES7 650-8PB00-1AA0 | Backplane bus module for 2 x IM 650-8 redundant version with protective coating         |                          |   |   |   |
| Bus module       | 6ES7 650-8PC00-0AA0 | Backplane bus module for 2 x SMART electronic module                                    |                          |   |   |   |
| Bus module       | 6ES7 650-8PC00-1AA0 | Backplane bus module for 2 x SMART electronic module<br>Version with protective coating |                          |   |   |   |





6.1 AI

| Product name     | Article no.         | Brief description                                                                                                | Properties (Page 129) |   |   |       |
|------------------|---------------------|------------------------------------------------------------------------------------------------------------------|-----------------------|---|---|-------|
|                  |                     |                                                                                                                  | F                     | C | R | T     |
| 2 AI 2 WIRE      | 6ES7 134-5RB00-0AB0 | Analog input module<br>2 AI I; 2-wire measuring transducer; 0..20 mA / 12 bits + sign,<br>4 ... 20 mA / 12 bits  | W                     |   |   | 09/06 |
| 2 AI 4 WIRE      | 6ES7 134-5RB50-0AB0 | Analog input module<br>2 AI I; 4-wire measuring transducer; 0..20 mA / 12 bits,<br>4 ... 20 mA / 12 bits         | W                     |   |   | 09/06 |
| 2 AI TC          | 6ES7 134-5SB00-0AB0 | Analog input module<br>2 AI TC; 15 bits + sign; standard;<br>thermocouples: E, N, J, K, L, S, R, B, T,U          | W                     |   |   | 09/06 |
| 2 AI RTD         | 6ES7 134-5SB50-0AB0 | Analog input module<br>2 AI RTD; 15 bits + sign; standard;<br>R: 600 Ohm; RTD: Pt 100, Ni 100:                   | W                     |   |   | 09/06 |
| 2 AI 2 WIRE HART | 6ES7 134-5TB00-0AB0 | Analog input module<br>2 AI; 4 ... 20 mA,<br>with HART communication for connecting 2-wire measuring transducers | W                     |   |   | 09/06 |
| 2 AI 4 WIRE HART | 6ES7 134-5TB50-0AB0 | Analog input module<br>2 AI; 4 ... 20 mA,<br>with HART communication for connecting 4-wire measuring transducers | W                     |   |   | 09/06 |

6.2 AO

| Product name  | Article no.         | Brief description                                                           | Properties (Page 129) |   |   |       |
|---------------|---------------------|-----------------------------------------------------------------------------|-----------------------|---|---|-------|
|               |                     |                                                                             | F                     | C | R | T     |
| 2 AO 0/4-20mA | 6ES7 135-5RB00-0AB0 | Analog output module<br>2 AO; 0..20 mA / 12 bits + sign; 4..20 mA / 12 bits | W                     |   |   | 09/06 |
| 2 AO HART     | 6ES7 135-5TB00-0AB0 | Analog output module<br>2 AO; 4..20 mA;<br>with HART communication          | W                     |   |   | 09/06 |

### 6.3 DI

| Product name | Article no.         | Brief description                  | Properties<br>(Page 129) |   |   |           |
|--------------|---------------------|------------------------------------|--------------------------|---|---|-----------|
|              |                     |                                    | F                        | C | R | T         |
| 4 DI NAMUR   | 6ES7 131-5RD00-0AB0 | Digital input module<br>4 DI NAMUR | W                        |   |   | 09/<br>06 |

### 6.4 DO

| Product name | Article no.         | Brief description                              | Properties<br>(Page 129) |   |   |           |
|--------------|---------------------|------------------------------------------------|--------------------------|---|---|-----------|
|              |                     |                                                | F                        | C | R | T         |
| 2 DO         | 6ES7 132-5SB00-0AB0 | Digital output module<br>2 DO; DC 25 V / 25 mA | W                        |   |   | 09/<br>06 |

### 6.5 IM

| Product name      | Article no.         | Brief description                                                                      | Properties<br>(Page 129) |   |   |           |
|-------------------|---------------------|----------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                   |                     |                                                                                        | F                        | C | R | T         |
| ET 200iS-IM 151-2 | 6ES7 151-2AA00-0AB0 | Interface module for ET 200iS electronic modules for<br>intrinsically safe PROFIBUS DP | W                        | X |   | 09/<br>06 |

### 6.6 PS

| Product name | Article no.         | Brief description         | Properties<br>(Page 129) |   |   |           |
|--------------|---------------------|---------------------------|--------------------------|---|---|-----------|
|              |                     |                           | F                        | C | R | T         |
| PS           | 6ES7 138-5EA00-0AA0 | Power supply for ET 200iS |                          |   |   | 09/<br>06 |

## 6.7 Terminal module

| Product name | Article no.         | Brief description                                          | Properties<br>(Page 129) |   |   |           |
|--------------|---------------------|------------------------------------------------------------|--------------------------|---|---|-----------|
|              |                     |                                                            | F                        | C | R | T         |
| TM-E30S-44iS | 6ES7 193-5CB00-0AA0 | Terminal module for Ems; 4 rows;<br>screw terminal         |                          |   |   | 09/<br>06 |
| TM-E30C-44iS | 6ES7 193-5CB10-0AA0 | Terminal module for EMs; 4 rows;<br>spring-loaded terminal |                          |   |   | 09/<br>06 |
| TM-PS-iS     | 6ES7 193-5DA00-0AA0 | Terminal module for PS                                     |                          |   |   | 09/<br>06 |
| TM-IM-iS     | 6ES7 193-5DB00-0AA0 | Terminal module for IM 151-2                               |                          |   |   | 09/<br>06 |



# ET 200iSP

# 7

## 7.1 AI

| Product name      | Article no.         | Brief description                                                                                                   | Properties (Page 129) |   |   |           |
|-------------------|---------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------|---|---|-----------|
|                   |                     |                                                                                                                     | F                     | C | R | T         |
| 4 AI I 2WIRE HART | 6ES7 134-7TD00-0AB0 | Analog input module<br>4 AI; 4 ... 20 mA;<br>with HART communication for connecting 2-wire<br>measuring transducers | W                     | M |   |           |
| 4 AI I 4WIRE HART | 6ES7 134-7TD50-0AB0 | Analog input module<br>4 AI; 4 ... 20 mA;<br>with HART communication for connecting 4-wire<br>measuring transducers | W                     | M |   |           |
| 4 AI TC           | 6ES7 134-7SD00-0AB0 | Analog input module<br>4 AI TC                                                                                      | W                     | M |   |           |
| 4 AI RTD          | 6ES7 134-7SD50-0AB0 | Analog input module<br>4 AI RTD                                                                                     | W                     | M |   | 05/<br>08 |
| 4 AI RTD          | 6ES7 134-7SD51-0AB0 | Analog input module<br>4 AI RTD                                                                                     | W                     | M |   |           |

## 7.2 AI-F

| Product name    | Article no.         | Brief description                                                                                                                          | Properties (Page 129) |   |   |   |
|-----------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---|---|---|
|                 |                     |                                                                                                                                            | F                     | C | R | T |
| 4 AI 2WIRE HART | 6ES7 138-7FA00-0AB0 | Analog input module<br>4 AI; 0/4 ... 20 mA;<br>safety-related, ex i;with HART communication for<br>connecting 2-wire measuring transducers | W                     | M |   |   |

## 7.3 AO

| Product name | Article no.         | Brief description                                                     | Properties (Page 129) |   |   |   |
|--------------|---------------------|-----------------------------------------------------------------------|-----------------------|---|---|---|
|              |                     |                                                                       | F                     | C | R | T |
| 4 AO I HART  | 6ES7 135-7TD00-0AB0 | Analog output module<br>4 AO; 4 ... 20 mA;<br>with HART communication | W                     | M |   |   |

## 7.4 DI

| Product name | Article no.         | Brief description                  | Properties<br>(Page 129) |   |   |   |
|--------------|---------------------|------------------------------------|--------------------------|---|---|---|
|              |                     |                                    | F                        | C | R | T |
| 8 DI NAMUR   | 6ES7 131-7RF00-0AB0 | Digital input module<br>8 DI NAMUR | W                        | M |   |   |

## 7.5 DI-F

| Product name | Article no.         | Brief description                                          | Properties<br>(Page 129) |   |   |   |
|--------------|---------------------|------------------------------------------------------------|--------------------------|---|---|---|
|              |                     |                                                            | F                        | C | R | T |
| 8 DI NAMUR   | 6ES7 138-7FN00-0AB0 | Digital input module<br>F-DI 8 NAMUR, safety-related, ex i | W                        | M |   |   |

## 7.6 DO

| Product name                      | Article no.         | Brief description                                                 | Properties<br>(Page 129) |   |   |           |
|-----------------------------------|---------------------|-------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                   |                     |                                                                   | F                        | C | R | T         |
| 4 DO DC23,1V/20mA                 | 6ES7 132-7RD00-0AB0 | Digital output module<br>4 DO; DC 23.1 V / 20 mA                  | W                        | M |   | 10/<br>06 |
| 4 DO DC23,1V/20mA<br>Shutdown "H" | 6ES7 132-7RD01-0AB0 | Digital output module<br>4 DO; DC 23.1 V / 20 mA;<br>shutdown "H" | W                        | M |   |           |
| 4 DO DC17,4V/27mA                 | 6ES7 132-7RD10-0AB0 | Digital output module<br>4 DO; DC 17.4 V / 27 mA                  | W                        | M |   | 10/<br>06 |
| 4 DO DC17,4V/27mA<br>Shutdown "H" | 6ES7 132-7RD11-0AB0 | Digital output module<br>4 DO; DC 17.4 V / 27 mA;<br>shutdown "H" | W                        | M |   |           |
| 4 DO DC17,4V/40mA                 | 6ES7 132-7RD20-0AB0 | Digital output module<br>4 DO; DC 17.4 V / 40 mA                  | W                        | M |   | 10/<br>06 |
| 4 DO DC17,4V/40mA<br>Shutdown "H" | 6ES7 132-7RD21-0AB0 | Digital output module<br>4 DO; DC 17.4 V / 40 mA;<br>shutdown "H" | W                        | M |   | 06/<br>10 |
| 4 DO DC17,4V/40mA<br>Shutdown "H" | 6ES7 132-7RD22-0AB0 | Digital output module<br>4 DO; DC 17.4 V / 40 mA;<br>shutdown "H" | W                        | M |   |           |
| 4 DO DC23,1V/20mA<br>Shutdown "L" | 6ES7 132-7GD00-0AB0 | Digital output module<br>4 DO; DC 23.1 V / 20 mA;<br>shutdown "L" | W                        | M |   |           |
| 4 DO DC17,4V/<br>27mAShutdown "L" | 6ES7 132-7GD10-0AB0 | Digital output module<br>4 DO; DC 17.4 V / 27 mA;<br>shutdown "L" | W                        | M |   |           |

| Product name                       | Article no.         | Brief description                                                 | Properties<br>(Page 129) |   |   |           |
|------------------------------------|---------------------|-------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                    |                     |                                                                   | F                        | C | R | T         |
| 4 DO DC17,4V/40mA<br>Shutdown "L"  | 6ES7 132-7GD20-0AB0 | Digital output module<br>4 DO; DC 17.4 V / 40 mA;<br>shutdown "L" | W                        | M |   | 06/<br>10 |
| 4 DO DC17,4V/<br>40mA Shutdown "L" | 6ES7 132-7GD21-0AB0 | Digital output module<br>4 DO; DC 17.4 V / 40 mA;<br>shutdown "L" | W                        | M |   |           |
| 4 DO DC25,5V/22mA<br>Shutdown "L"  | 6ES7 132-7GD30-0AB0 | Digital output module<br>4 DO; DC 25.5 V / 22 mA;<br>shutdown "L" | W                        | M |   |           |
| 2 DO Relais UC60V/<br>2A           | 6ES7 132-7HB00-0AB0 | Digital output module<br>2 DO relay; UC 60 V / 2 A                | W                        | M |   |           |

## 7.7 DO-F

| Product name | Article no.         | Brief description                                                                       | Properties<br>(Page 129) |   |   |   |
|--------------|---------------------|-----------------------------------------------------------------------------------------|--------------------------|---|---|---|
|              |                     |                                                                                         | F                        | C | R | T |
| 4 DO         | 6ES7 138-7FD00-0AB0 | Digital output module<br>4 DO; DC 17.4 V / 40 mA;<br>PP-switching, safety-related, ex i | W                        | M |   |   |

## 7.8 IM

| Product name       | Article no.<br>Firmware version | Brief description                                                                                                                                 | Properties<br>(Page 129) |   |   |   |
|--------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                    |                                 |                                                                                                                                                   | F                        | C | R | T |
| ET 200iSP-IM 152-1 | 6ES7 152-1AA00-0AB0             | Interface module for ET 200iSP<br>electronic modules for intrinsically safe<br>PROFIBUS DP                                                        | W                        | S |   |   |
| ET 200iSP-IM 152-1 | 6ES7 152-1AA00-0AB0<br>V2.0     | Interface module for ET 200iSP<br>electronic modules for intrinsically safe<br>PROFIBUS DP<br>can be used for redundant operation in the H system | W                        | S |   |   |

## 7.9 PS

| Product name   | Article no.         | Brief description          | Properties<br>(Page 129) |   |   |           |
|----------------|---------------------|----------------------------|--------------------------|---|---|-----------|
|                |                     |                            | F                        | C | R | T         |
| PS DC 24V      | 6ES7 138-7EA00-0AA0 | Power supply for ET 200iSP |                          |   |   | 07/<br>06 |
| PS DC 24V      | 6ES7 138-7EA01-0AA0 | Power supply for ET 200iSP |                          |   |   |           |
| PS AC 120/230V | 6ES7 138-7EC00-0AA0 | Power supply for ET 200iSP |                          |   |   |           |

## 7.10 EM

| Product name      | Article no.         | Brief description             | Properties<br>(Page 129) |   |   |   |
|-------------------|---------------------|-------------------------------|--------------------------|---|---|---|
|                   |                     |                               | F                        | C | R | T |
| EM reserve module | 6ES7 138-7AA00-0AA0 | Reserve module for free slots |                          |   |   |   |

## 7.11 Watchdog

| Product name    | Article no.         | Brief description                     | Properties<br>(Page 129) |   |   |   |
|-----------------|---------------------|---------------------------------------|--------------------------|---|---|---|
|                 |                     |                                       | F                        | C | R | T |
| Watchdog module | 6ES7 138-7BB00-0AB0 | Special module for station monitoring | W                        | M |   |   |

## 7.12 Couplers

| Product name      | Article no.         | Brief description                                                                                                                                                | Properties<br>(Page 129) |   |   |   |
|-------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                   |                     |                                                                                                                                                                  | F                        | C | R | T |
| RS 485-IS coupler | 6ES7 972-0AC80-0XA0 | Fieldbus coupler between PROFIBUS DP and RS 485-IS;<br>to control intrinsically safe PROFIBUS nodes; installation in Zone 2 possible; extended temperature range |                          |   |   |   |



## 7.13 Terminal module

| Product name   | Article no.         | Brief description                                          | Properties<br>(Page 129) |   |   |           |
|----------------|---------------------|------------------------------------------------------------|--------------------------|---|---|-----------|
|                |                     |                                                            | F                        | C | R | T         |
| TM-EM/EM 60 S  | 6ES7 193-7CA00-0AA0 | Terminal module for 2 EM;<br>screw terminal                |                          |   |   |           |
| TM-EM/EM 60 C  | 6ES7 193-7CA10-0AA0 | Terminal module for 2 EM;<br>spring-loaded terminal        |                          |   |   |           |
| TM-EM/EM 60 S  | 6ES7 193-7CA20-0AA0 | Terminal module for 2 EM;<br>screw terminal                |                          |   |   |           |
| TM-EM Relais C | 6ES7 193-7CB00-0AA0 | Terminal module for EM relay;<br>screw terminal            |                          |   |   |           |
| TM-IM/EM 60 S  | 6ES7 193-7AA00-0AA0 | Terminal module for IM / EM;<br>screw terminal             |                          |   |   |           |
| TM-IM/EM 60 C  | 6ES7 193-7AA10-0AA0 | Terminal module for IM / EM;<br>spring-loaded terminal     |                          |   |   |           |
| TM-IM/EM 60 S  | 6ES7 193-7AA20-0AA0 | Terminal module for IM / EM;<br>screw terminal             |                          |   |   |           |
| TM-IM/IM       | 6ES7 193-7AB00-0AA0 | Terminal module for redundant IM                           |                          |   |   |           |
| TM-PS-A        | 6ES7 193-7DA00-0AA0 | Terminal module for power supply                           |                          |   |   | 07/<br>06 |
| TM-PS-B        | 6ES7 193-7DB00-0AA0 | Terminal module for<br>redundant power supply              |                          |   |   | 07/<br>06 |
| TM-PS-A        | 6ES7 193-7DA10-0AA0 | Terminal module for<br>24 V DC power supply                |                          |   |   | 12/<br>17 |
| TM-PS-B        | 6ES7 193-7DB10-0AA0 | Terminal module for<br>24 V DC redundant power supply      |                          |   |   | 12/<br>17 |
| TM-PS-A        | 6ES7 193-7DA20-0AA0 | Terminal module for<br>120/230 V AC power supply           |                          |   |   |           |
| TM-PS-B        | 6ES7 193-7DB20-0AA0 | Terminal module for<br>120/230 V AC redundant power supply |                          |   |   |           |



## 8.1 AI

| Product name              | Article no.         | Brief description                                                                                    | Properties<br>(Page 129) |   |   |           |
|---------------------------|---------------------|------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                           |                     |                                                                                                      | F                        | C | R | T         |
| 2 AI U                    | 6ES7 134-4FB00-0AB0 | Analog input module<br>2 AI; (+/-5 V, 1 ... 5 V, +/-10 V) / 13 bits; standard                        | W<br>Y                   |   |   | 07/<br>05 |
| 2 AI U                    | 6ES7 134-4FB01-0AB0 | Analog input module<br>2 AI; (+/-5 V, 1 ... 5 V, +/-10 V) / 13 bits; standard                        | W<br>Y                   |   |   |           |
| 2 AI I 2DMU               | 6ES7 134-4GB00-0AB0 | Analog input module<br>2 AI; 2-wire measuring transducer (4 ... 20 mA) / 13 bits; standard           | W<br>Y                   |   |   | 04/<br>05 |
| 2 AI I 2DMU               | 6ES7 134-4GB01-0AB0 | Analog input module<br>2 AI; 2-wire measuring transducer (4 ... 20 mA) / 13 bits; standard           | W<br>Y                   |   |   |           |
| 2 AI I 4DMU               | 6ES7 134-4GB10-0AB0 | Analog input module<br>2 AI; 4-wire measuring transducer (+/-20 mA, 4 ... 20 mA) / 13 bits; standard | W<br>Y                   |   |   | 05/<br>05 |
| 2 AI I 4DMU               | 6ES7 134-4GB11-0AB0 | Analog input module<br>2 AI; 4-wire measuring transducer (+/-20 mA, 4 ... 20 mA) / 13 bits; standard | W<br>Y                   |   |   |           |
| 2 AI I TC                 | 6ES7 134-4JB00-0AB0 | Analog input module<br>2 AI TC; 15 bits; standard                                                    | W<br>Y                   |   |   | 09/<br>08 |
| 2 AI I TC                 | 6ES7 134-4JB01-0AB0 | Analog input module<br>2 AI TC; 15 bits; standard                                                    | W<br>Y                   |   |   | 10/<br>16 |
| 2 AI I RTD                | 6ES7 134-4JB50-0AB0 | Analog input module<br>2 AI RTD; 15 bits; standard                                                   | W<br>Y                   |   |   | 09/<br>08 |
| 2 AI I RTD                | 6ES7 134-4JB51-0AB0 | Analog input module<br>2 AI RTD; 15 bits; standard                                                   | W                        |   |   |           |
| 2 AI U                    | 6ES7 134-4LB00-0AB0 | Analog input module<br>2 AI; (1 ... 5 V, +/- 5 V, +/- 10 V) / 15 bits;<br>high-resolution            | W<br>Y                   |   |   | 06/<br>06 |
| 2 AI U                    | 6ES7 134-4LB02-0AB0 | Analog input module<br>2 AI; (1 ... 5 V, +/- 5 V, +/- 10 V) / 15 bits;<br>high-resolution            | W<br>Y                   |   |   |           |
| 2 AI I                    | 6ES7 134-4MB00-0AB0 | Analog input module<br>2 AI; (+/-20 mA, 4 ... 20 mA) / 15 bits,<br>high-resolution                   | W<br>Y                   |   |   | 06/<br>06 |
| 2 AI I                    | 6ES7 134-4MB02-0AB0 | Analog input module<br>2 AI; (+/-20 mA, 4 ... 20 mA) / 15 bits,<br>high-resolution                   | W<br>Y                   |   |   |           |
| 2 AI I TC<br>High Feature | 6ES7 134-4NB00-0AB0 | Analog input module<br>2 AI TC; 15 bits;<br>high feature                                             | W<br>Y                   |   |   | 09/<br>05 |

| Product name               | Article no.         | Brief description                                         | Properties<br>(Page 129) |   |   |           |
|----------------------------|---------------------|-----------------------------------------------------------|--------------------------|---|---|-----------|
|                            |                     |                                                           | F                        | C | R | T         |
| 2 AI I TC<br>High Feature  | 6ES7 134-4NB01-0AB0 | Analog input module<br>2 AI TC; 15 bits;<br>high feature  | W<br>Y                   |   |   |           |
| 2 AI I RTD<br>High Feature | 6ES7 134-4NB50-0AB0 | Analog input module<br>2 AI RTD; 15 bits;<br>high feature | W<br>Y                   |   |   | 11/<br>05 |
| 2 AI I RTD<br>High Feature | 6ES7 134-4NB51-0AB0 | Analog input module<br>2 AI RTD; 15 bits;<br>high feature | W<br>Y                   |   |   |           |

## 8.2 AO

| Product name | Article no.         | Brief description                                                                                              | Properties<br>(Page 129) |   |   |           |
|--------------|---------------------|----------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|              |                     |                                                                                                                | F                        | C | R | T         |
| 2 AO U       | 6ES7 135-4FB00-0AB0 | Analog output module<br>2 AO; 1 ... 5 V / 12 Bit, +/-10 V / 13 bits; standard                                  | W<br>Y                   |   |   | 05/<br>05 |
| 2 AO U       | 6ES7 135-4FB01-0AB0 | Analog output module<br>2 AO; 1 ... 5 V / 12 Bit, +/-10 V / 13 bits; standard                                  | W<br>Y                   |   |   |           |
| 2 AO I       | 6ES7 135-4GB00-0AB0 | Analog output module<br>2 AO; (+/-20 mA, 4 ... 20 mA) / 13 bits; standard                                      | W<br>Y                   |   |   | 05/<br>05 |
| 2 AO I       | 6ES7 135-4GB01-0AB0 | Analog output module<br>2 AO; (+/-20 mA, 4 ... 20 mA) / 13 bits; standard                                      | W<br>Y                   |   |   |           |
| 2 AO U       | 6ES7 135-4LB00-0AB0 | Analog output module<br>2 AO; (1 ... 5 V, +/-10 V) / 15 bits;<br>high-resolution                               | W<br>Y                   |   |   | 08/<br>03 |
| 2 AO U       | 6ES7 135-4LB01-0AB0 | Analog output module<br>2 AO; (1 ... 5 V, +/-10 V) / 15 bits;<br>high-resolution, supports isochronous mode    | W<br>Y                   |   |   | 06/<br>06 |
| 2 AO U       | 6ES7 135-4LB02-0AB0 | Analog output module<br>2 AO; (1 ... 5 V, +/-10 V) / 15 bits;<br>high-resolution, supports isochronous mode    | W<br>Y                   |   |   |           |
| 2 AO I       | 6ES7 135-4MB00-0AB0 | Analog output module<br>2 AO; (+/-20 mA, 4 ... 20 mA) / 15 bits;<br>high-resolution                            | W<br>Y                   |   |   | 08/<br>03 |
| 2 AO I       | 6ES7 135-4MB01-0AB0 | Analog output module<br>2 AO; (+/-20 mA, 4 ... 20 mA) / 15 bits,<br>high-resolution, supports isochronous mode | W<br>Y                   |   |   | 06/<br>06 |
| 2 AO I       | 6ES7 135-4MB02-0AB0 | Analog output module<br>2 AO; (+/-20 mA, 4 ... 20 mA) / 15 bits;<br>high-resolution, supports isochronous mode | W<br>Y                   |   |   |           |

## 8.3 DI

| Product name               | Article no.         | Brief description                                                                                                            | Properties<br>(Page 129) |   |   |           |
|----------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                            |                     |                                                                                                                              | F                        | C | R | T         |
| 2 DI DC24V                 | 6ES7 131-4BB00-0AA0 | Digital input module<br>2 DI; 24 V DC; standard                                                                              | W<br>Y                   |   |   | 04/<br>05 |
| 2 DI DC24V                 | 6ES7 131-4BB01-0AA0 | Digital input module<br>2 DI; 24 V DC; standard                                                                              | W<br>Y                   |   |   |           |
| 4 DI DC24V                 | 6ES7 131-4BD00-0AA0 | Digital input module<br>4 DI; 24 V DC; standard                                                                              | W<br>Y                   |   |   | 04/<br>05 |
| 4 DI DC24V                 | 6ES7 131-4BD01-0AA0 | Digital input module<br>4 DI; 24 V DC; standard                                                                              | W<br>Y                   |   |   |           |
| 2 DI DC24V<br>High Feature | 6ES7 131-4BB00-0AB0 | Digital input module<br>2 DI; 24 V DC; High Feature;<br>with diagnostics                                                     | W<br>Y                   |   |   | 06/<br>05 |
| 2 DI DC24V<br>High Feature | 6ES7 131-4BB01-0AB0 | Digital input module<br>2 DI; 24 V DC; High Feature;<br>with diagnostics                                                     | W<br>Y                   |   |   |           |
| 4 DI DC24V<br>High Feature | 6ES7 131-4BD00-0AB0 | Digital input module<br>4 DI; 24 V DC; High Feature;<br>with diagnostics                                                     | W<br>Y                   |   |   | 05/<br>05 |
| 4 DI DC24V<br>High Feature | 6ES7 131-4BD01-0AB0 | Digital input module<br>4 DI; 24 V DC; High Feature;<br>with diagnostics                                                     | W<br>Y                   |   |   |           |
| 8 DI DC24V<br>High Speed   | 6ES7 131-4BF00-0AA0 | Digital input module<br>8 DI; DC 24 V; supports isochronous mode                                                             | W<br>Y                   |   |   |           |
| 4 DI                       | 6ES7 131-4CD00-0AB0 | Digital input module<br>4 DI; UC 24 ... 48 V; High Feature;<br>with diagnostics                                              | W<br>Y                   |   |   | 08/<br>10 |
| 4 DI UC 24...48V HF        | 6ES7 131-4CD02-0AB0 | Digital input module<br>4 DI; UC 24 ... 48 V; High Feature;<br>with diagnostics                                              | W<br>Y                   |   |   |           |
| 2 DI AC 120V               | 6ES7 131-4EB00-0AB0 | Digital input module<br>2 DI; 120 V AC                                                                                       | W<br>Y                   |   |   |           |
| 2 DI AC 230V               | 6ES7 131-4FB00-0AB0 | Digital input module<br>2 DI; 120 V AC                                                                                       | W<br>Y                   |   |   |           |
| 4 DI NAMUR                 | 6ES7 131-4RD00-0AB0 | Digital input module<br>4 DI NAMUR; with diagnostics                                                                         | W<br>Y                   |   |   | 10/<br>10 |
| 4 DI NAMUR                 | 6ES7 131-4RD02-0AB0 | Digital input module<br>4 DI NAMUR; with diagnostics                                                                         | W<br>Y                   |   |   |           |
| 8 DI DC 24V                | 6ES7 138-4FA00-0AB0 | Digital input module<br>4 / 8 DI; 24 V DC;<br>8 DI safety-related SIL-2 or 4 DI safety-related<br>SIL-3,<br>with diagnostics | W<br>Y                   |   |   | 06/<br>04 |

8.4 DO

| Product name | Article no.         | Brief description                                                                                                         | Properties (Page 129) |   |   |           |
|--------------|---------------------|---------------------------------------------------------------------------------------------------------------------------|-----------------------|---|---|-----------|
|              |                     |                                                                                                                           | F                     | C | R | T         |
| 8 DI DC 24V  | 6ES7 138-4FA01-0AB0 | Digital input module<br>4 / 8 DI; 24 V DC;<br>8 DI safety-related SIL-2 or 4 DI safety-related SIL-3,<br>with diagnostics | W<br>Y                |   |   | 10/<br>05 |
| 8 DI DC 24V  | 6ES7 138-4FA02-0AB0 | Digital input module<br>4 / 8 DI; 24 V DC;<br>8 DI safety-related SIL-2 or 4 DI safety-related SIL-3,<br>with diagnostics | W<br>Y                |   |   | 01/<br>07 |
| 8 DI DC 24V  | 6ES7 138-4FA03-0AB0 | Digital input module<br>4 / 8 DI; 24 V DC;<br>8 DI safety-related SIL-2 or 4 DI safety-related SIL-3,<br>with diagnostics | W<br>Y                |   |   | 10/<br>08 |
| 8 DI DC 24V  | 6ES7 138-4FA04-0AB0 | Digital input module<br>4 / 8 DI; 24 V DC;<br>8 DI safety-related SIL-2 or 4 DI safety-related SIL-3,<br>with diagnostics | W<br>Y                |   |   | 09/<br>15 |
| 8 DI DC 24V  | 6ES7 138-4FA05-0AB0 | Digital input module<br>4 / 8 DI; 24 V DC;<br>8 DI safety-related SIL-2 or 4 DI safety-related SIL-3, with diagnostics    | W<br>Y                |   |   |           |

8.4 DO

| Product name                       | Article no.         | Brief description                                                                 | Properties (Page 129) |   |   |           |
|------------------------------------|---------------------|-----------------------------------------------------------------------------------|-----------------------|---|---|-----------|
|                                    |                     |                                                                                   | F                     | C | R | T         |
| 2 DO<br>DC24V/0.5A                 | 6ES7 132-4BB00-0AA0 | Digital output module<br>2 DO; 24 V DC / 0.5 A; standard                          | W<br>Y                |   |   | 04/<br>05 |
| 2 DO<br>DC24V/0.5A                 | 6ES7 132-4BB01-0AA0 | Digital output module<br>2 DO; 24 V DC / 0.5 A; standard                          | W<br>Y                |   |   |           |
| 2 DO<br>DC24V/2A                   | 6ES7 132-4BB30-0AA0 | Digital output module<br>2 DO; 24 V DC / 2 A; standard                            | W<br>Y                |   |   | 04/<br>05 |
| 2 DO<br>DC24V/2A                   | 6ES7 132-4BB31-0AA0 | Digital output module<br>2 DO; 24 V DC / 2 A; standard                            | W<br>Y                |   |   |           |
| 2 DO<br>DC24V/0.5A<br>High Feature | 6ES7 132-4BB00-0AB0 | Digital output module<br>2 DO; 24 V DC / 0.5 A; High Feature;<br>with diagnostics | W<br>Y                |   |   | 09/<br>05 |
| 2 DO<br>DC24V/0.5A<br>High Feature | 6ES7 132-4BB01-0AB0 | Digital output module<br>2 DO; 24 V DC / 0.5 A; High Feature;<br>with diagnostics | W<br>Y                |   |   |           |

| Product name                       | Article no.         | Brief description                                                                                              | Properties<br>(Page 129) |   |   |           |
|------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                    |                     |                                                                                                                | F                        | C | R | T         |
| 2 DO<br>DC24V/2A<br>High Feature   | 6ES7 132-4BB30-0AB0 | Digital output module<br>2 DO; 24 V DC / 2 A; High Feature;<br>with diagnostics                                | W<br>Y                   |   |   | 07/<br>05 |
| 2 DO<br>DC24V/2A<br>High Feature   | 6ES7 132-4BB31-0AB0 | Digital output module<br>2 DO; 24 V DC / 2 A; High Feature;<br>with diagnostics                                | W<br>Y                   |   |   |           |
| 4 DO<br>DC24V/0.5A                 | 6ES7 132-4BD00-0AA0 | Digital output module<br>4 DO; 24 V DC / 0.5 A; standard                                                       | W<br>Y                   |   |   | 05/<br>05 |
| 4 DO<br>DC24V/0.5A<br>High Feature | 6ES7 132-4BD00-0AB0 | Digital output module<br>4 DO; 24 V DC / 0.5 A; High Feature;<br>with diagnostics                              | W<br>Y                   |   |   |           |
| 4 DO<br>DC24V/0.5A                 | 6ES7 132-4BD01-0AA0 | Digital output module<br>4 DO; 24 V DC / 0.5 A; standard                                                       | W<br>Y                   |   |   | 10/<br>10 |
| 4 DO<br>DC24V/0.5A                 | 6ES7 132-4BD02-0AA0 | Digital output module<br>4 DO; 24 V DC / 0.5 A; standard                                                       | W<br>Y                   |   |   |           |
| 4 DO<br>DC24V/2A                   | 6ES7 132-4BD30-0AA0 | Digital output module<br>4 DO; 24 V DC / 2 A; standard                                                         | W<br>Y                   |   |   | 04/<br>05 |
| 4 DO<br>DC24V/2A<br>High Feature   | 6ES7 132-4BD30-0AB0 | Digital output module<br>4 DO; 24 V DC / 2 A; High Feature,<br>with diagnostics                                | W<br>Y                   |   |   |           |
| 4 DO<br>DC24V/2A                   | 6ES7 132-4BD31-0AA0 | Digital output module<br>4 DO; 24 V DC / 2 A; standard                                                         | W<br>Y                   |   |   | 05/<br>07 |
| 4 DO<br>DC24V/2A                   | 6ES7 132-4BD32-0AA0 | Digital output module<br>4 DO; 24 V DC / 2 A; standard                                                         | W<br>Y                   |   |   |           |
| 8 DO<br>DC24V/0.5A<br>High Speed   | 6ES7 132-4BF00-0AA0 | Digital output module<br>8 DO; 24 V DC / 0.5 A;<br>supports isochronous mode                                   | W<br>Y                   |   |   |           |
| 8 DO<br>DC24V/0.5A<br>High Feature | 6ES7 132-4BF00-0AB0 | Digital output module<br>8 DO; 24 V DC / 0.5 A; High Feature,<br>with diagnostics, supports isochronous mode   | W<br>Y                   |   |   |           |
| 2 DO<br>AC 120/230V/ 1A            | 6ES7 132-4FB00-0AB0 | Digital output module<br>2 DO; 120 / 230 V, 1 A AC                                                             | W<br>Y                   |   |   | 01/<br>07 |
| 2 DO<br>AC 120/230V/ 1A            | 6ES7 132-4FB01-0AB0 | Digital output module<br>2 DO; 120 / 230 V, 1 A AC                                                             | W<br>Y                   |   |   |           |
| 2 DO Rel.<br>24.230V/5A            | 6ES7 132-4HB00-0AB0 | Digital output module<br>2 relays; 24..230 V / 5 A UC                                                          | W<br>Y                   |   |   | 04/<br>05 |
| 2 DO Rel.<br>24.230V/5A            | 6ES7 132-4HB01-0AB0 | Digital output module<br>2 relays; 24..230 V / 5 A UC                                                          | W<br>Y                   |   |   |           |
| 2 DO Rel.<br>24.230V/5A            | 6ES7 132-4HB10-0AB0 | Digital output module<br>2 relays; form C; 24..230 V / 5 A UC                                                  | W<br>Y                   |   |   | 05/<br>11 |
| 2 DO Rel.<br>24.230V/5A            | 6ES7 132-4HB12-0AB0 | Digital output module<br>2 relays; form C; 24..230 V / 5 A UC                                                  | W<br>Y                   |   |   |           |
| 4 DO<br>DC 24V/2A                  | 6ES7 138-4FB00-0AB0 | Digital output module<br>4 DO; DC 24 V / 2 A;<br>safety-related up to SIL-3,<br>with diagnostics, PM-switching | W<br>Y                   |   |   | 06/<br>04 |

## 8.6 IM

| Product name      | Article no.         | Brief description                                                                                              | Properties<br>(Page 129) |   |   |           |
|-------------------|---------------------|----------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                   |                     |                                                                                                                | F                        | C | R | T         |
| 4 DO<br>DC 24V/2A | 6ES7 138-4FB01-0AB0 | Digital output module<br>4 DO; DC 24 V / 2 A;<br>safety-related up to SIL-3,<br>with diagnostics, PM-switching | W<br>Y                   |   |   | 10/<br>05 |
| 4 DO<br>DC 24V/2A | 6ES7 138-4FB02-0AB0 | Digital output module<br>4 DO; DC 24 V / 2 A;<br>safety-related up to SIL-3,<br>with diagnostics, PM-switching | W<br>Y                   |   |   | 10/<br>08 |
| 4 DO<br>DC 24V/2A | 6ES7 138-4FB03-0AB0 | Digital output module<br>4 DO; DC 24 V / 2 A;<br>safety-related up to SIL-3,<br>with diagnostics, PM-switching | W<br>Y                   |   |   | 07/<br>14 |
| 4 DO<br>DC 24V/2A | 6ES7 138-4FB04-0AB0 | Digital output module<br>4 DO; DC 24 V / 2 A;<br>DC safety related to SIL-3,<br>with diagnostics, PM switching | W<br>Y                   |   |   |           |

## 8.5 FM

| Product name                    | Article no.         | Brief description                                                                                                                                                                    | Properties<br>(Page 129) |   |   |   |
|---------------------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                                 |                     |                                                                                                                                                                                      | F                        | C | R | T |
| Counter module,<br>24 V/100 kHz | 6ES7 138-4DA04-0AB0 | Counter module, 24 V / 100 kHz;<br>for single, continuous and periodic counting,<br>supports isochronous mode<br>(only counting and measuring modes have<br>been released for PCS 7) | W<br>Y                   |   |   |   |

## 8.6 IM

| Product name | Article no.         | Brief description                                      | Properties<br>(Page 129) |   |   |           |
|--------------|---------------------|--------------------------------------------------------|--------------------------|---|---|-----------|
|              |                     |                                                        | F                        | C | R | T         |
| IM 151-1     | 6ES7 151-1BA00-0AB0 | Interface module<br>IM 151-1 for ET 200S; high feature | W<br>Y                   | X |   | 10/<br>05 |
| IM 151-1     | 6ES7 151-1BA01-0AB0 | Interface module<br>IM 151-1 for ET 200S; high feature | W<br>Y                   | X |   | 03/<br>07 |
| IM 151-1     | 6ES7 151-1BA02-0AB0 | Interface module<br>IM 151-1 for ET 200S; high feature | W<br>Y                   | X |   |           |



## 8.7 PS

| Product name                  | Article no.         | Brief description                                                                            | Properties<br>(Page 129) |   |   |           |
|-------------------------------|---------------------|----------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                               |                     |                                                                                              | F                        | C | R | T         |
| PM-E DC24V                    | 6ES7 138-4CA00-0AA0 | Power supply,<br>DC 24 V; with diagnostics                                                   | W<br>Y                   |   |   | 04/<br>05 |
| PM-E DC24V                    | 6ES7 138-4CA01-0AA0 | Power supply,<br>DC 24 V;<br>with diagnostics                                                | W<br>Y                   |   |   |           |
| PM-E DC24V HF                 | 6ES7 138-4CA60-0AB0 | Power supply,<br>DC 24 V;<br>with diagnostics, high feature                                  | W<br>Y                   |   |   |           |
| PM-E DC24V/<br>AC120/230V     | 6ES7 138-4CB10-0AB0 | Power supply,<br>DC 24 V; AC 120 V or 230 V;<br>with diagnostics and fuse                    | W<br>Y                   |   |   | 11/<br>06 |
| PM-E DC24V..48/<br>AC24..230V | 6ES7 138-4CB11-0AB0 | Power supply,<br>DC 24 ... 48 V, AC 24 ... 230 V;<br>with diagnostics and fuse               | W<br>Y                   |   |   |           |
| PM-E DC24V                    | 6ES7 138-4CF00-0AB0 | Power supply,<br>DC 24 V; safety-related,<br>with 2 DO 24V PM-switching;<br>with diagnostics | W<br>Y                   |   |   | 06/<br>04 |
| PM-E DC24V                    | 6ES7 138-4CF01-0AB0 | Power supply,<br>DC 24 V; safety-related,<br>with 2 DO 24V PM-switching;<br>with diagnostics | W<br>Y                   |   |   | 10/<br>05 |
| PM-E DC24V                    | 6ES7 138-4CF02-0AB0 | Power supply,<br>DC 24 V; safety-related,<br>with 2 DO 24V PM-switching;<br>with diagnostics | W<br>Y                   |   |   | 10/<br>08 |
| PM-E DC24V                    | 6ES7 138-4CF03-0AB0 | Power supply,<br>DC 24 V; safety-related,<br>with 2 DO 24V PM-switching;<br>with diagnostics | W<br>Y                   |   |   |           |
| PM-E DC24V                    | 6ES7 138-4CF42-0AB0 | Power supply,<br>DC 24 V; safety-related,<br>PP-switching;<br>with diagnostics               | W<br>Y                   |   |   |           |
| PM-D DC24V                    | 3RK1 903-0BA00      | Power supply,<br>DC 24 V;<br>2 PM-D; DC 24 V                                                 | W<br>Y                   |   |   |           |
| PM-D F1 SIGUARD               | 3RK1 903-1BA00      | Power supply;<br>EMERGENCY OFF; monitored start-up; 2-channel                                | W<br>Y                   |   |   |           |
| PM-D F2 SIGUARD               | 3RK1 903-1BB00      | Power supply;<br>protective door; autostart; 2-channel                                       | W<br>Y                   |   |   |           |
| PM-D F4 SIGUARD               | 3RK1 903-1BC00      | Power supply;<br>extension to F1/2 for additional potential group                            | W<br>Y                   |   |   |           |

8.8 Terminal module

| Product name     | Article no.    | Brief description                                                                                                        | Properties (Page 129) |   |   |       |
|------------------|----------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------|---|---|-------|
|                  |                |                                                                                                                          | F                     | C | R | T     |
| PM-D F3 SIGUARD  | 3RK1 903-1BD00 | Power supply; extension to F1/2 for additional potential group; time-delayed                                             | W<br>Y                |   |   |       |
| PM-D F5 SIGUARD  | 3RK1 903-1BE00 | Power supply; extension to PM-D F1 to PM-D F4; contact multiplier                                                        | W<br>Y                |   |   |       |
| PM-X SIGUARD     | 3RK1 903-1CB00 | Connection module for incoming feeder protection; external safety circuits                                               | W<br>Y                |   |   |       |
| PM-D F PROFIsafe | 3RK1 903-3BA00 | Power supply for 6 vector groups; safety-related                                                                         | W<br>Y                |   |   | 03/06 |
| PM-D F PROFIsafe | 3RK1 903-3BA01 | Power supply for 6 vector groups; safety-related                                                                         | W<br>Y                |   |   | 10/09 |
| PM-D F PROFIsafe | 3RK1 903-3BA02 | Power supply for 6 vector groups; safety-related                                                                         | W<br>Y                |   |   |       |
| F-CM             | 3RK1 903-3CA00 | Contact multiplier; extension to PM-D F PROFIsafe;                                                                       | W<br>Y                |   |   |       |
| PM-D F X1        | 3RK1 903-3DA00 | Power supply/expansion module; overvoltage protection; for supplying external EMERGENCY OFF signals; for 6 vector groups | W<br>Y                |   |   |       |

8.8 Terminal module

| Product name | Article no.         | Brief description                                                                                                                                | Properties (Page 129) |   |   |   |
|--------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---|---|---|
|              |                     |                                                                                                                                                  | F                     | C | R | T |
| TM-E15x26-A1 | 6ES7 193-4CAx0-0AA0 | Terminal module for electronic modules; pass-through AUX rail to adjacent potential group on the left; access to AUX1 potential via terminals    | Y                     |   |   |   |
| TM-E15x24-A1 | 6ES7 193-4CAx0-0AA0 | Terminal module for electronic modules; pass-through AUX rail to adjacent potential group on the left; access to AUX1 potential via terminals    | Y                     |   |   |   |
| TM-E15x24-01 | 6ES7 193-4CBx0-0AA0 | Terminal module for electronic modules; pass-through AUX rail to adjacent potential group on the left; no access to AUX1 potential via terminals | Y                     |   |   |   |
| TM-E15x23-01 | 6ES7 193-4CBx0-0AA0 | Terminal module for electronic modules; pass-through AUX rail to adjacent potential group on the left; no access to AUX1 potential via terminals | Y                     |   |   |   |

| Product name  | Article no.         | Brief description                                                                                                                                                       | Properties<br>(Page 129) |   |   |   |
|---------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|               |                     |                                                                                                                                                                         | F                        | C | R | T |
| TM-E15x24-AT  | 6ES7 193-4CLx0-0AA0 | Terminal module for electronic modules<br>2 AI TC HF;<br>pass-through AUX rail to adjacent<br>potential group on the left;<br>no access to AUX1 potential via terminals | Y                        |   |   |   |
| TM-E30x46-A1  | 6ES7 193-4CFx0-0AA0 | Terminal module for electronic modules;<br>pass-through AUX rail to adjacent<br>potential group on the left;<br>access to AUX1 potential via terminals                  | Y                        |   |   |   |
| TM-E30x44-01  | 6ES7 193-4CGx0-0AA0 | Terminal module for electronic modules;<br>pass-through AUX rail to adjacent<br>potential group on the left;<br>no access to AUX1 potential via terminals               | Y                        |   |   |   |
| TM-P15x23-A1  | 6ES7 193-4CCx0-0AA0 | Terminal module for power supply;<br>pass-through AUX rail to adjacent<br>potential group on the left;<br>access to AUX1 potential via terminals                        | Y                        |   |   |   |
| TM-P15x23-A0  | 6ES7 193-4CDx0-0AA0 | Terminal module for power supply;<br>interrupted AUX rail to adjacent<br>potential group on the left;<br>access to AUX1 potential via terminals                         | Y                        |   |   |   |
| TM-P15x22-01  | 6ES7 193-4CEx0-0AA0 | Terminal module for power supply;<br>pass-through AUX rail to adjacent<br>potential group on the left;<br>no access to AUX1 potential via terminals                     | Y                        |   |   |   |
| TM-P30x44-A0  | 6ES7 193-4CKx0-0AA0 | Terminal module for fail-safe power supply<br>PM-E F;<br>interrupted AUX rail to adjacent<br>potential group on the left;<br>access to AUX1 potential via terminals     | Y                        |   |   |   |
| TM-P15S27-01  | 3RK1 903-0AA00      | Terminal module for power supply<br>PM-D;<br>with end cover                                                                                                             | Y                        |   |   |   |
| TM-PF30S47-B1 | 3RK1 903-1AA00      | Terminal module<br>SIGUARD PM-D F 1,2;<br>for potential group, supply U1, U2,<br>sensor connection                                                                      | Y                        |   |   |   |
| TM-PF30S47-B0 | 3RK1 903-1AA10      | Terminal module for<br>SIGUARD PM-D F 1,2<br>for potential subgroup,<br>sensor connection                                                                               | Y                        |   |   |   |
| TM-PF30S47-C1 | 3RK1 903-1AC00      | Terminal module<br>SIGUARD PM-D F 3,4<br>for potential group, supply U1, U2                                                                                             | Y                        |   |   |   |
| TM-PF30S47-C0 | 3RK1 903-1AC10      | Terminal module<br>SIGUARD PM-D F 3,4<br>for potential subgroup, supply U2                                                                                              | Y                        |   |   |   |

| Product name   | Article no.    | Brief description                                                                                                                                                       | Properties<br>(Page 129) |   |   |   |
|----------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                |                |                                                                                                                                                                         | F                        | C | R | T |
| TM-PF30S47-D0  | 3RK1 903-1AD10 | Terminal module<br>SIGUARD PM-D F 5<br>for contact multipliers                                                                                                          | Y                        |   |   |   |
| TM-X15 S27-01  | 3RK1 903-1AB00 | Terminal module for connection module PM-X<br>connection unit for supply contactor                                                                                      | Y                        |   |   |   |
| TM-PF30S47-F1  | 3RK1 903-3AA00 | Terminal module for fail-safe power supply<br>PM-D F;<br>pass-through AUX rail to adjacent<br>potential group on the left;<br>no access to AUX1 potential via terminals | Y                        |   |   |   |
| TM-FCM30S47-E0 | 3RK1 903-3AB10 | Terminal module for F-CM;<br>with bushing for U1                                                                                                                        | Y                        |   |   |   |
| TM-PFX30S47-G1 | 3RK1 903-3AE00 | Terminal module for PM-D F X1;<br>for potential group; no supply from left<br>for U1                                                                                    | Y                        |   |   |   |
| TM-PFX30S47-G0 | 3RK1 903-3AE10 | Terminal module for PM-D F X1;<br>for potential group; with supply from left<br>for U1                                                                                  | Y                        |   |   |   |

## 8.9 Motor starter

| Product name                        | Article no.         | Brief description                                                                                                                                                                                                            | Properties<br>(Page 129) |   |   |           |
|-------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                     |                     |                                                                                                                                                                                                                              | F                        | C | R | T         |
| DS1e-x<br>0,3 - 3 A<br>High Feature | 3RK1 301-0AB10-0AA2 | Direct starter<br>DS 1e-x; 0.3 - 3 A;<br>mechanical switching; electronic UE protec-<br>tion; no fuse; up to 1.1 KW / 400 V; 0.3 A to<br>3 A;<br>Option:<br>Brake control module, control module; high<br>feature            | W<br>Y                   |   |   | 05/<br>04 |
| DS1e-x<br>0,3 - 3 A<br>High Feature | 3RK1 301-0AB10-0AA3 | Direct starter<br>DS 1e-x; 0.3 - 3 A;<br>mechanical switching; electronic UE protec-<br>tion; no fuse; up to 1.1 KW / 400 V; 0.3 A to<br>3 A;<br>Option:<br>Brake control module, control module; switch<br>ES; high feature | W<br>Y                   |   |   |           |

| Product name                         | Article no.         | Brief description                                                                                                                                                                                                                                               | Properties<br>(Page 129) |   |   |           |
|--------------------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                      |                     |                                                                                                                                                                                                                                                                 | F                        | C | R | T         |
| DS1e-x<br>0,3 - 3 A<br>High Feature  | 3RK1 301-0AB10-0AA4 | Direct starter<br>DS 1e-x; 0.3 - 3 A;<br>mechanical switching; electronic UE protection; no fuse; up to 1.1 KW / 400 V; 0.3 A to 3 A;<br>Option:<br>Brake control module, control module; switch ES; high feature; circuit-breaker notification can be assigned | W<br>Y                   |   |   | 10/<br>12 |
| DS1e-x<br>2,4 - 8 A<br>High Feature  | 3RK1 301-0BB10-0AA2 | Direct starter<br>DS 1e-x; 2.4 - 8 A;<br>mechanical switching; electronic UE protection; no fuse; up to 3 KW / 400 V; 2,4 A to 8 A;<br>Option:<br>Brake control module, control module; high feature                                                            | W<br>Y                   |   |   | 05/<br>04 |
| DS1e-x<br>2,4 - 8 A<br>High Feature  | 3RK1 301-0BB10-0AA3 | Direct starter;<br>DS 1e-x; 2.4 - 8 A;<br>mechanical switching; electronic UE protection; no fuse; up to 3 KW / 400 V; 2,4 A to 8 A;<br>Option:<br>Brake control module, control module; switch ES; high feature                                                | W<br>Y                   |   |   |           |
| DS1e-x<br>2,4 - 8 A<br>High Feature  | 3RK1 301-0BB10-0AA4 | Direct starter<br>DS 1e-x; 2.4 - 8 A;<br>mechanical switching; electronic UE protection; no fuse; up to 3 KW / 400 V; 2,4 A to 8 A;<br>Option:<br>Brake control module, control module; switch ES; high feature; circuit-breaker notification can be assigned   | W<br>Y                   |   |   |           |
| DS1e-x<br>2,4 - 16 A<br>High Feature | 3RK1 301-0CB10-0AA2 | Direct starter<br>DS1e-x 2.4 - 16 A;<br>mechanical switching; electronic UE protection; no fuse; up to 7.5 KW / 400 V; 2,4 A to 16 A;<br>Option:<br>Brake control module, control module; high feature                                                          | W<br>Y                   |   |   | 05/<br>04 |
| DS1e-x<br>2,4 - 16 A<br>High Feature | 3RK1 301-0CB10-0AA3 | Direct starter<br>DS 1e-x; 2.4 - 16 A;<br>mechanical switching; electronic UE protection; no fuse; up to 7.5 KW / 400 V; 2,4 A to 16 A;<br>Option:<br>Brake control module, control module; switch ES; high feature                                             | W<br>Y                   |   |   |           |

8.9 Motor starter

| Product name                         | Article no.         | Brief description                                                                                                                                                                                                                                                 | Properties<br>(Page 129) |   |   |           |
|--------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                      |                     |                                                                                                                                                                                                                                                                   | F                        | C | R | T         |
| DS1e-x<br>2,4 - 16 A<br>High Feature | 3RK1 301-0CB10-0AA4 | Direct starter<br>DS 1e-x; 2.4 - 16 A;<br>mechanical switching; electronic UE protection; no fuse; up to 7.5 KW / 400 V; 2,4 A to 16 A;<br>Option:<br>Brake control module, control module; switch ES; high feature; circuit-breaker notification can be assigned | W<br>Y                   |   |   |           |
| DSS1e-x<br>0,3 - 3 A<br>High Feature | 3RK1 301-0AB20-0AA2 | Direct soft starter<br>DSS 1e-x 0.3 - 3 A;<br>electronic switching; electronic UE protection; no fuse; up to 1.1 KW / 400 V; 0,30 A to 3,00 A;<br>Option:<br>Brake control module, control module; high feature                                                   | W<br>Y                   |   |   | 05/<br>04 |
| DSS1e-x<br>0,3 - 3 A<br>High Feature | 3RK1 301-0AB20-0AA3 | Direct soft starter<br>DSS 1e-x; 0.3 - 3 A;<br>electronic switching; electronic UE protection; no fuse; up to 1.1 KW / 400 V; 0.3 A to 3 A;<br>Option:<br>Brake control module, control module; switch ES; high feature                                           | W<br>Y                   |   |   |           |
| DSS1e-x<br>0,3 - 3 A<br>High Feature | 3RK1 301-0AB20-0AA4 | Direct soft starter<br>DSS 1e-x; 0.3 - 3 A;<br>electronic switching; electronic UE protection; no fuse; up to 1.1 KW / 400 V; 0.3 A to 3 A;<br>Option:<br>Brake control module, control module; switch ES; high feature                                           | W<br>Y                   |   |   |           |
| DSS1e-x<br>2,4 - 8 A<br>High Feature | 3RK1 301-0BB20-0AA2 | Direct soft starter<br>DSS 1 e-x; 2.4 - 8 A;<br>electronic switching; electronic UE protection; no fuse; up to 3 KW / 400 V; 2.4 A to 8 A;<br>Option:<br>Brake control module, control module; high feature                                                       | W<br>Y                   |   |   | 05/<br>04 |
| DSS1e-x<br>2,4 - 8 A High Feature    | 3RK1 301-0BB20-0AA3 | Direct soft starter<br>DSS 1e-x; 2,4 - 8 A;<br>electronic switching; electronic UE protection; no fuse; up to 3 KW / 400 V; 2.4 A to 8 A;<br>Option:<br>Brake control module, control module; switch ES; high feature                                             | W<br>Y                   |   |   |           |

| Product name                          | Article no.         | Brief description                                                                                                                                                                                                                  | Properties<br>(Page 129) |   |   |           |
|---------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                       |                     |                                                                                                                                                                                                                                    | F                        | C | R | T         |
| DSS1e-x<br>2,4 - 8 A<br>High Feature  | 3RK1 301-0BB20-0AA4 | Direct soft starter<br>DSS 1e-x; 2.4 - 8 A;<br>electronic switching; electronic UE protection; no fuse; up to 3 KW / 400 V; 2.4 A to 8 A;<br>Option: Brake control module, control module; switch ES; high feature                 | W<br>Y                   |   |   |           |
| DSS1e-x<br>2,4 - 16 A<br>High Feature | 3RK1 301-0CB20-0AA2 | Direct soft starter<br>DSS 1e-x; 2.4 - 16 A;<br>electronic switching; electronic UE protection; no fuse; up to 7.5 KW / 400 V; 2.4 A to 16 A;<br>Option:<br>Brake control module, control module; high feature                     | W<br>Y                   |   |   | 05/<br>04 |
| DSS1e-x 2,4 - 16 A<br>High Feature    | 3RK1 301-0CB20-0AA3 | Direct soft starter<br>DSS 1e-x; 2.4 - 16 A;<br>electronic switching; electronic UE protection; no fuse; up to 7.5 KW / 400 V; 2.4 A to 16 A;<br>Option:<br>Brake control module, control module; switch ES; high feature          | W<br>Y                   |   |   |           |
| DSS1e-x<br>2,4 - 16 A<br>High Feature | 3RK1 301-0CB20-0AA4 | Direct soft starter<br>DSS 1e-x 2.4 - 16 A;<br>electronic switching; electronic UE protection; no fuse; up to 7.5 KW / 400 V; 2.4 A to 16 A;<br>Option:<br>Brake control module, control module; switch ES; high feature           | W<br>Y                   |   |   |           |
| RS1e-x<br>(0,3 - 3A)<br>High Feature  | 3RK1 301-0AB10-1AA2 | Reversing starter<br>RS 1e-x; 0.3 - 3 A;<br>High Feature; mechanical switching; electronic UE protection; no fuse; up to 1.1 KW / 400 V; 0.3 A to 3 A;<br>Option:<br>Brake control module, control module; high feature            | W<br>Y                   |   |   | 05/<br>04 |
| RS1e-x<br>(0,3 - 3A) High Feature     | 3RK1 301-0AB10-1AA3 | Reversing starter<br>RS 1e-x; 0.3 - 3 A;<br>High Feature; mechanical switching; electronic UE protection; no fuse; up to 1.1 KW / 400 V; 0.3 A to 3 A;<br>Option:<br>Brake control module, control module; switch ES; high feature | W<br>Y                   |   |   |           |

8.9 Motor starter

| Product name                          | Article no.         | Brief description                                                                                                                                                                                                                                                                 | Properties<br>(Page 129) |   |   |           |
|---------------------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                       |                     |                                                                                                                                                                                                                                                                                   | F                        | C | R | T         |
| RS1e-x<br>(0,3 - 3A)<br>High Feature  | 3RK1 301-0AB10-1AA4 | Reversing starter<br>RS 1e-x; 0.3 - 3 A;<br>High Feature; mechanical switching; electronic UE protection; no fuse; up to 1.1 KW / 400 V; 0.3 A bis 3 A;<br>Option:<br>Brake control module, control module; switch ES; high feature; circuit-breaker notification can be assigned | W<br>Y                   |   |   |           |
| RS1e-x<br>(2,4 - 8A)<br>High Feature  | 3RK1 301-0BB10-1AA2 | Reversing starter<br>RS 1e-x; 2.4 - 8 A;<br>High Feature; mechanical switching; electronic UE protection; no fuse; up to 3 KW / 400 V; 2.4 A to 8 A;<br>Option:<br>Brake control module, control module; high feature                                                             | W<br>Y                   |   |   | 05/<br>04 |
| RS1e-x<br>(2,4 - 8A)<br>High Feature  | 3RK1 301-0BB10-1AA3 | Reversing starter<br>RS 1e-x; 2.4 - 8 A;<br>High Feature; mechanical switching; electronic UE protection; no fuse; up to 3 KW / 400 V; 2.4 A to 8 A;<br>Option:<br>Brake control module, control module; switch ES; high feature                                                  | W<br>Y                   |   |   |           |
| RS1e-x (2,4 - 8A)<br>High Feature     | 3RK1 301-0BB10-1AA4 | Reversing starter<br>RS 1e-x; 2,4 - 8 A;<br>High feature; mechanical switching; electronic UE protection; no fuse; up to 3 KW / 400 V; 2.4 A to 8 A;<br>Option:<br>Brake control module, control module; switch ES; high feature; circuit-breaker notification can be assigned    | W<br>Y                   |   |   |           |
| RS1e-x<br>(2,4 - 16A)<br>High Feature | 3RK1 301-0CB10-1AA2 | Reversing starter<br>RS 1e-x; 2.4 - 16 A;<br>High Feature; mechanical switching; electronic UE protection; no fuse; up to 7.5 KW / 400 V; 2.4 A to 16 A;<br>Option:<br>Brake control module, control module; high feature                                                         | W<br>Y                   |   |   | 05/<br>04 |



| Product name                          | Article no.         | Brief description                                                                                                                                                                                                                                                                      | Properties<br>(Page 129) |   |   |   |
|---------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                                       |                     |                                                                                                                                                                                                                                                                                        | F                        | C | R | T |
| RS1e-x<br>(2,4 - 16A)<br>High Feature | 3RK1 301-0CB10-1AA3 | Reversing starter<br>RS 1e-x; 2.4 - 16 A;<br>High Feature; mechanical switching; electronic UE protection; no fuse; up to 7.5 KW / 400 V; 2.4 A to 16 A;<br><br>Option:<br>Brake control module, control module; switch ES; high feature                                               | W<br>Y                   |   |   |   |
| RS1e-x<br>(2,4 - 16A)<br>High Feature | 3RK1 301-0CB10-1AA4 | Reversing starter<br>RS 1e-x; 2.4 - 16 A;<br>High Feature; mechanical switching; electronic UE protection; no fuse; up to 7.5 KW / 400 V; 2.4 A to 16 A;<br><br>Option:<br>Brake control module, control module; switch ES; high feature; circuit-breaker notification can be assigned | W<br>Y                   |   |   |   |

## 8.10 F motor starter

| Product name                          | Article no.         | Brief description                                                                                                                                                                                                                                                                                      | Properties<br>(Page 129) |   |   |   |
|---------------------------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                                       |                     |                                                                                                                                                                                                                                                                                                        | F                        | C | R | T |
| F-DS1e-x<br>0,3 - 3 A<br>High Feature | 3RK1 301-0AB13-0AA2 | Safe direct starter<br>F-DS 1e-x; 0.3 - 3 A;<br>high feature; mechanical switching; electronic UE protection; no fuse;<br>up to 1.1 KW / 400 V; 0.3 A to 3 A;<br><br>Option:<br>Brake control module, control module; high feature; for PM-D F PROFIsafe                                               | W<br>Y                   |   |   |   |
| F-DS1e-x<br>0,3 - 3 A<br>High Feature | 3RK1 301-0AB13-0AA4 | Safe direct starter<br>F-DS 1e-x; 0.3 - 3 A;<br>high feature; mechanical switching; electronic UE protection; no fuse;<br>up to 1.1 KW / 400 V; 0.3 A to 3 A;<br><br>Option:<br>Brake control module, control module; high feature; for PM-D F PROFIsafe; circuit-breaker notification can be assigned | W<br>Y                   |   |   |   |

8.10 F motor starter

| Product name                           | Article no.         | Brief description                                                                                                                                                                                                                                                                                    | Properties<br>(Page 129) |   |   |   |
|----------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                                        |                     |                                                                                                                                                                                                                                                                                                      | F                        | C | R | T |
| F-DS1e-x<br>2,4 - 8 A<br>High Feature  | 3RK1 301-0BB13-0AA2 | Safe direct starter<br>F-DS 1e-x; 2.4 - 8 A;<br>high feature; mechanical switching; electronic UE protection; no fuse;<br>up to 3 KW / 400 V; 2.4 A to 8 A;<br>Option:<br>Brake control module, control module; high feature; for PM-D F PROFIsafe                                                   | W<br>Y                   |   |   |   |
| F-DS1e-x<br>2,4 - 8 A<br>High Feature  | 3RK1 301-0BB13-0AA4 | Safe direct starter<br>F-DS 1e-x; 2,4 - 8 A;<br>high feature; mechanical switching; electronic UE protection; no fuse;<br>up to 3 KW / 400 V; 2.4 A to 8 A;<br>Option:<br>Brake control module, control module; high feature; for PM-D F PROFIsafe; circuit-breaker notification can be assigned     | W<br>Y                   |   |   |   |
| F-DS1e-x<br>2,4 - 16 A<br>High Feature | 3RK1 301-0CB13-0AA2 | Safe direct starter<br>F-DS 1e-x; 2.4 - 16 A;<br>high feature; mechanical switching; electronic UE protection; no fuse;<br>up to 7.5 KW / 400 V; 2.4 A to 16 A;<br>Option:<br>Brake control module, control module; high feature; for PM-D F PROFIsafe                                               | W<br>Y                   |   |   |   |
| F-DS1e-x<br>2,4 - 16 A<br>High Feature | 3RK1 301-0CB13-0AA4 | Safe direct starter<br>F-DS 1e-x; 2.4 - 16 A;<br>high feature; mechanical switching; electronic UE protection; no fuse;<br>up to 7.5 KW / 400 V; 2.4 A to 16 A;<br>Option:<br>Brake control module, control module; high feature; for PM-D F PROFIsafe; circuit-breaker notification can be assigned | W<br>Y                   |   |   |   |
| F-RS1e-x<br>0,3 - 3 A<br>High Feature  | 3RK1 301-0AB13-1AA2 | Safe reversing starter<br>F-RS 1e-x; 0.3 - 3 A;<br>high feature; mechanical switching; electronic UE protection; no fuse;<br>up to 1.1 KW / 400 V; 0.3 A to 3 A;<br>Option:<br>Brake control module, control module; high feature; for PM-D F PROFIsafe                                              | W<br>Y                   |   |   |   |

| Product name                           | Article no.         | Brief description                                                                                                                                                                                                                                                                                       | Properties<br>(Page 129) |   |   |   |
|----------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                                        |                     |                                                                                                                                                                                                                                                                                                         | F                        | C | R | T |
| F-RS1e-x<br>0,3 - 3 A<br>High Feature  | 3RK1 301-0AB13-1AA4 | Safe reversing starter<br>F-RS 1e-x; 0.3 - 3 A;<br>high feature; mechanical switching; electronic UE protection; no fuse;<br>up to 1.1 KW / 400 V; 0.3 A to 3 A;<br>Option:<br>Brake control module, control module; high feature; for PM-D F PROFIsafe; circuit-breaker notification can be assigned   | W<br>Y                   |   |   |   |
| F-RS1e-x<br>2,4 - 8 A<br>High Feature  | 3RK1 301-0BB13-1AA2 | Safe reversing starter<br>F-RS 1e-x; 2.4 - 8 A;<br>high feature; mechanical switching; electronic UE protection; no fuse;<br>up to 3 KW / 400 V; 2.4 A to 8 A;<br>Option:<br>Brake control module, control module; high feature; for PM-D F PROFIsafe                                                   | W<br>Y                   |   |   |   |
| F-RS1e-x<br>2,4 - 8 A<br>High Feature  | 3RK1 301-0BB13-1AA4 | Safe reversing starter<br>F-RS 1e-x; 2.4 - 8 A;<br>high feature; mechanical switching; electronic UE protection; no fuse;<br>up to 3 KW / 400 V; 2.4 A to 8 A;<br>Option:<br>Brake control module, control module; high feature; for PM-D F PROFIsafe; circuit-breaker notification can be assigned     | W<br>Y                   |   |   |   |
| F-RS1e-x<br>2,4 - 16 A<br>High Feature | 3RK1 301-0CB13-1AA2 | Safe reversing starter<br>F-RS 1e-x; 2.4 - 16 A;<br>high feature; mechanical switching; electronic UE protection; no fuse;<br>up to 7.5 KW / 400 V; 2.4 A to 16 A;<br>Option:<br>Brake control module, control module; high feature; for PM-D F PROFIsafe                                               | W<br>Y                   |   |   |   |
| F-RS1e-x<br>2,4 - 16 A<br>High Feature | 3RK1 301-0CB13-1AA4 | Safe reversing starter<br>F-RS 1e-x; 2.4 - 16 A;<br>high feature; mechanical switching; electronic UE protection; no fuse;<br>up to 7.5 KW / 400 V; 2.4 A to 16 A;<br>Option:<br>Brake control module, control module; high feature; for PM-D F PROFIsafe; circuit-breaker notification can be assigned | W<br>Y                   |   |   |   |

## 8.11 Motor starter accessories

| Product name       | Article no.    | Brief description                                                         | Properties<br>(Page 129) |   |   |   |
|--------------------|----------------|---------------------------------------------------------------------------|--------------------------|---|---|---|
|                    |                |                                                                           | F                        | C | R | T |
| xB3<br>DC24V/4A    | 3RK1 903-0CE00 | Brake control module<br>DC 24 V / 4 A;<br>2 DI; DC 24 V; local control    | W<br>Y                   |   |   |   |
| xB4<br>DC500V/0,7A | 3RK1 903-0CF00 | Brake control module<br>DC 500 V / 0.7 A;<br>2 DI; DC 24 V; local control | W<br>Y                   |   |   |   |

## 8.12 TM motor starter

| Product name             | Article no.    | Brief description                                                                             | Properties<br>(Page 129) |   |   |   |
|--------------------------|----------------|-----------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                          |                |                                                                                               | F                        | C | R | T |
| TM-DS65-S32-01<br>FS L   | 3RK1 903-0AK00 | Terminal module for DS 1e-x and DSS 1e-x; motor starters,<br>with power bus supply, with caps | Y                        |   |   |   |
| TM-DS65-S31-01<br>S      | 3RK1 903-0AK10 | Terminal module for DS 1e-x and DSS 1e-x; motor starter,<br>with power bus bushing            | Y                        |   |   |   |
| TM-RS130-S32-01<br>FS L  | 3RK1 903-0AL00 | Terminal module for RS 1e-x; motor starter,<br>with power bus supply, with caps               | Y                        |   |   |   |
| TM-RS130-S31-01<br>S     | 3RK1 903-0AL10 | Terminal module for RS 1e-x; motor starter,<br>with power bus bushing                         | Y                        |   |   |   |
| TM-FDS65-S32-01<br>FS L  | 3RK1 903-0AC00 | Terminal module for F-DS 1e-x; motor starter,<br>with power bus supply, with caps             | Y                        |   |   |   |
| TM-FDS65-S32-01<br>FS L  | 3RK1 903-3AC00 | Terminal module for F-DS 1e-x; motor starter,<br>with power bus supply, with caps             | Y                        |   |   |   |
| TM-FDS65-S31-01<br>S     | 3RK1 903-0AC10 | Terminal module for F-DS 1e-x; motor starter,<br>with power bus bushing                       | Y                        |   |   |   |
| TM-FDS65-S31-01<br>S     | 3RK1 903-3AC10 | Terminal module for F-DS 1e-x; motor starter,<br>with power bus bushing                       | Y                        |   |   |   |
| TM-FRS130-S32-01<br>FS L | 3RK1 903-0AD00 | Terminal module for F-RS 1e-x; motor starter,<br>with power bus supply, with caps             | Y                        |   |   |   |
| TM-FRS130-S32-01<br>FS L | 3RK1 903-3AD00 | Terminal module for F-RS 1e-x; motor starter,<br>with power bus supply, with caps             | Y                        |   |   |   |
| TM-FRS130-S31-01<br>S    | 3RK1 903-0AD10 | Terminal module for F-RS 1e-x; motor starter,<br>with power bus bushing                       | Y                        |   |   |   |
| TM-FRS130-S31-01<br>S    | 3RK1 903-3AD10 | Terminal module for F-RS 1e-x; motor starter,<br>with power bus bushing                       | Y                        |   |   |   |
| TM-xB215 S24-01          | 3RK1 903-0AG01 | Terminal module for brake control module xB3, xB4                                             | Y                        |   |   |   |

9.1 AI

| Product name                  | Article no.                 | Brief description                                                                                     | Properties (Page 129) |   |   |           |
|-------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------|-----------------------|---|---|-----------|
|                               |                             |                                                                                                       | F                     | C | R | T         |
| AI 4 x I 2-/4-wire ST         | 6ES7134-6GD00-0BA1          | Analog input module<br>AI 4 x I 2-/4-wire standard<br>module diagnostics, 16-bit, +/-0.3%             | W<br>P                |   |   |           |
| AI 4 x U/I 2-wire ST          | 6ES7134-6HD00-0BA1          | Analog input module<br>AI 4 x U/I 2-wire standard<br>module diagnostics, 16-bit, +/-0.3%              | W<br>P                |   |   |           |
| AI 4 x RTD/TC 2-/3-/4-wire HF | 6ES7134-6JD00-0CA1          | Analog input module<br>AI 4 x RTD/TC High Feature<br>channel diagnostics, 16-BIT, +/-0.1%2-/3-/4-wire | W<br>P                |   |   |           |
| AI EnergyMeter ST             | 6ES7134-6PA00-0BD0<br>1) 3) | Analog input module<br>AI Energy Meter ST, channel diagnostics                                        | W<br>P                |   |   | 01/<br>17 |
| AI EnergyMeter 480VAC ST      | 6ES7134-6PA20-0BD0          | Analog input module<br>AI Energy Meter 480V AC ST; channel diagnostics                                | W<br>P                |   |   |           |
| AI 2 x U/I 2-,4-wire HF       | 6ES7134-6HB00-0CA1          | Analog input module<br>AI 2 x U/I 2-,4-wire High Feature<br>channel diagnostics, 16-bit, +/-0.1%      | W<br>P                |   |   |           |
| AI 4 x I 2-wire HART          | 6ES7134-6TD00-0CA1<br>2)    | Analog input module<br>AI 4 x I 2-wire HART High Feature<br>channel diagnostics, 16-BIT, +/-0.3%      | W<br>P                |   |   |           |
| AI 8 x RTD/TC 2-wire HF       | 6ES7134-6JF00-0CA1<br>2)    | Analog input module<br>AI 8 x RTD/TC 2-wire High Feature<br>channel diagnostics, 16-bit, +/-0.1%      | W<br>P                |   |   |           |

1) To use this module the interface module IM155-6PN HF FW V3.1 and higher is required as of FW V2.0 and higher.

2) To use this module the interface module IM155-6PN HF FW V3.1 and higher is required.

3) The module has not been released for use on interface module IM155-6DP HF.

## 9.2 AO

| Product name | Article no.        | Brief description                                                                  | Properties<br>(Page 129) |   |   |   |
|--------------|--------------------|------------------------------------------------------------------------------------|--------------------------|---|---|---|
|              |                    |                                                                                    | F                        | C | R | T |
| AQ 2xU/I HF  | 6ES7135-6HB00-0CA1 | Analog output module<br>AQ 2xU/I High Feature, module diagnostics, 16-BIT, +/-0.3% | W<br>P                   |   |   |   |
| AQ 4xU/I ST  | 6ES7135-6HD00-0BA1 | Analog output module<br>AQ 4xU/I standard, module diagnostics, 16-BIT, +/-0.3%     | W<br>P                   |   |   |   |

## 9.3 DI

| Product name        | Article no.        | Brief description                                                            | Properties<br>(Page 129) |   |   |   |
|---------------------|--------------------|------------------------------------------------------------------------------|--------------------------|---|---|---|
|                     |                    |                                                                              | F                        | C | R | T |
| DI 8x24VDC ST       | 6ES7131-6BF00-0BA0 | Digital input module<br>DI 8x 24VDC standard, module diagnostics             | W<br>P                   |   |   |   |
| DI 16x24VDC ST      | 6ES7131-6BH00-0BA0 | Digital input module<br>DI 16x 24VDC standard, module diagnostics            | W<br>P                   |   |   |   |
| DI 8x24VDC HF       | 6ES7131-6BF00-0CA0 | Digital input module<br>DI 8x 24VDC High Feature, channel diagnostics        | W<br>P                   |   |   |   |
| DI 8x24VDC HF NAMUR | 6ES7131-6TF00-0CA0 | Digital input module<br>DI 8x 24VDC NAMUR, High Feature, channel diagnostics | W<br>P                   |   |   |   |

## 9.4 DO

| Product name        | Article no.        | Brief description                                                           | Properties<br>(Page 129) |   |   |   |
|---------------------|--------------------|-----------------------------------------------------------------------------|--------------------------|---|---|---|
|                     |                    |                                                                             | F                        | C | R | T |
| DQ 4x24VDC 2A ST    | 6ES7132-6BD20-0BA0 | Digital output module<br>DQ 4x24VDC 2 A standard, module diagnostics        | W<br>P                   |   |   |   |
| DQ 8x24VDC 0.5A ST  | 6ES7132-6BF00-0BA0 | Digital output module<br>DQ 8x24VDC 0.5 A standard, module diagnostics      | W<br>P                   |   |   |   |
| DQ 8 DC24V 0.5A HF  | 6ES7132-6BF00-0CA0 | Digital output module<br>DQ 8x24VDC 0.5 A High Feature, channel diagnostics | W<br>P                   |   |   |   |
| DQ 16x24VDC 0.5A ST | 6ES7132-6BH00-0BA0 | Digital output module<br>DQ 16x24VDC 0.5A standard, module diagnostics      | W<br>P                   |   |   |   |

| Product name                     | Article no.              | Brief description                                                                                            | Properties<br>(Page 129) |   |   |           |
|----------------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                  |                          |                                                                                                              | F                        | C | R | T         |
| RQ NO 4x120VDC..<br>230VAC/5A ST | 6ES7132-6HD00-0BB0<br>1) | Digital output module<br>RQ 4x120VDC..230VAC 5 A standard, relay module<br>Normally Open, module diagnostics | W<br>P                   |   |   | 12/<br>16 |
| RQ NO 4x120VDC..<br>230VAC/5A ST | 6ES7132-6HD00-0BB1       | Digital output module<br>RQ 4x120VDC..230VAC 5 A standard, relay module<br>Normally Open, module diagnostics | W<br>P                   |   |   |           |

1) The module has not been released for use on interface module IM155-6DP HF.

## 9.5 IM

| Product name             | Article no.<br>Firmware version | Brief description                                                                                                                       | Properties<br>(Page 129) |   |   |   |
|--------------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                          |                                 |                                                                                                                                         | F                        | C | R | T |
| ET 200SP<br>IM155-6PN HF | 6ES7155-6AU00-0CN0              | PROFINET interface module IM155-6PN High Feature; max. 64 I/O modules,<br>0,25 ms isochronous mode, Multi Hot Swap, incl. server module | W<br>P                   | X |   |   |
| ET 200SP<br>IM155-6DP HF | 6ES7155-6BU00-0CN0              | PROFIBUS Interface module IM155-6DP High Feature; max. 32 I/O modules, Multi Hot Swap, including server module                          | W                        | X |   |   |

## 9.6 Server module

| Product name  | Article no.        | Brief description                     | Properties<br>(Page 129) |   |   |   |
|---------------|--------------------|---------------------------------------|--------------------------|---|---|---|
|               |                    |                                       | F                        | C | R | T |
| SERVER MODULE | 6ES7193-6PA00-0AA0 | Spare part server module for ET 200SP | W<br>P                   |   |   |   |

## 9.7 Bus adapter

| Product name | Article no.              | Brief description                            | Properties<br>(Page 129) |   |   |   |
|--------------|--------------------------|----------------------------------------------|--------------------------|---|---|---|
|              |                          |                                              | F                        | C | R | T |
| BA 2xRJ45    | 6ES7193-6AR00-0AA0       | 2x RJ45 connection for PROFINET              | W<br>P                   |   |   |   |
| BA 2xFC      | 6ES7193-6AF00-0AA0<br>1) | 2x FAST CONNECT (FC) connection for PROFIBUS | W<br>P                   |   |   |   |

9.7 Bus adapter

| Product name | Article no.              | Brief description                                                                                  | Properties (Page 129) |   |   |   |
|--------------|--------------------------|----------------------------------------------------------------------------------------------------|-----------------------|---|---|---|
|              |                          |                                                                                                    | F                     | C | R | T |
| BA 2xSCRJ    | 6ES7193-6AP00-0AA0<br>1) | 2x SCRJ FO connection for PROFINET                                                                 | W<br>P                |   |   |   |
| BA 2xLC      | 6ES7193-6AG00-0AA0<br>2) | 2x LC fiber-optic cable connection for PROFINET                                                    | W<br>P                |   |   |   |
| BA LC/FC     | 6ES7193-6AG40-0AA0<br>2) | 1x LC fiber-optic cable connection and 1x Fast Connect connection for PROFINET                     | W<br>P                |   |   |   |
| BA LC/RJ45   | 6ES7193-6AG20-0AA0<br>2) | 1x LC fiber-optic cable connection and 1x RJ45 connection for PROFINET                             | W<br>P                |   |   |   |
| BA SCRJ/RJ45 | 6ES7193-6AP20-0AA0<br>1) | 1x SCRJ FO connection and 1x RJ45 connection for PROFINET<br>Media converter FOC - CU              | W<br>P                |   |   |   |
| BA SCRJ/FC   | 6ES7193-6AP40-0AA0<br>1) | 1x SCRJ FO connection and 1x FAST CONNECT (FC) connection for PROFINET<br>Media converter FOC - CU | W<br>P                |   |   |   |

1) To use this module the interface module IM155-6 PN HF HW V3 and higher and FW V3.1 and higher is required. Additional information is available in the respective manual: [support.industry.siemens.com/cs](https://support.industry.siemens.com/cs) (<https://support.industry.siemens.com/cs/us/en/view/73184046>)

2) To use this module the interface module IM155-6 PN HF HW V3 and higher and FW V3.3 and higher is required.



# ET 200X

# 10

## 10.1 AI

| Product name                | Article no.         | Brief description                                                                               | Properties<br>(Page 129) |   |   |           |
|-----------------------------|---------------------|-------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                             |                     |                                                                                                 | F                        | C | R | T         |
| ET 200X EM 144<br>AI 2x U   | 6ES7 144-1FB31-0XB0 | Expansion module<br>2 AI; +/-10 V;<br>diagnostics                                               | W                        |   |   | 10/<br>08 |
| ET 200X EM 144<br>AI 2x I   | 6ES7 144-1GB31-0XB0 | Expansion module<br>2 AI; +/-20 mA, 4 ... 20 mA;<br>4-wire measuring transducer;<br>diagnostics | W                        |   |   | 10/<br>08 |
| ET 200X EM 144<br>AI 2x I   | 6ES7 144-1GB41-0XB0 | Expansion module<br>2 AI; 4 ... 20 mA;<br>2-wire measuring transducer;<br>diagnostics           | W                        |   |   | 10/<br>08 |
| ET 200X EM 144<br>AI 2x RTD | 6ES7 144-1JB31-0XB0 | Expansion module<br>2 AI RTD; Pt 100;<br>diagnostics                                            | W                        |   |   | 10/<br>08 |

## 10.2 AO

| Product name              | Article no.         | Brief description                                               | Properties<br>(Page 129) |   |   |           |
|---------------------------|---------------------|-----------------------------------------------------------------|--------------------------|---|---|-----------|
|                           |                     |                                                                 | F                        | C | R | T         |
| ET 200X EM 145<br>AO 2x U | 6ES7 145-1FB31-0XB0 | Expansion module<br>2 AO; +/-10 V;<br>diagnostics               | W                        |   |   | 10/<br>08 |
| ET 200X EM 145<br>AO 2x I | 6ES7 145-1GB31-0XB0 | Expansion module<br>2 AO; +/-20 mA, 4 ... 20 mA;<br>diagnostics | W                        |   |   | 10/<br>08 |

### 10.3 BM\_DI

| Product name                 | Article no.         | Brief description                                                          | Properties<br>(Page 129) |   |   |           |
|------------------------------|---------------------|----------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                              |                     |                                                                            | F                        | C | R | T         |
| ET 200X BM 141<br>DI 8xDC24V | 6ES7 141-1BF11-0XB0 | Basic module ET 200X;<br>8 DI; DC 24 V,<br>can be expanded with analog EMs | W                        | X |   | 05/<br>03 |

### 10.4 BM\_DO

| Product name                    | Article no.         | Brief description                                                                | Properties<br>(Page 129) |   |   |           |
|---------------------------------|---------------------|----------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                 |                     |                                                                                  | F                        | C | R | T         |
| ET 200X BM 142<br>DO 4xDC24V/2A | 6ES7 142-1BD21-0XB0 | Basic module ET 200X;<br>4 DO; DC 24 V / 2 A;<br>can be expanded with analog EMs | W                        | X |   | 11/<br>02 |

### 10.5 DI

| Product name                 | Article no.         | Brief description                 | Properties<br>(Page 129) |   |   |           |
|------------------------------|---------------------|-----------------------------------|--------------------------|---|---|-----------|
|                              |                     |                                   | F                        | C | R | T         |
| ET 200X EM 141<br>DI 8xDC24V | 6ES7 141-1BF30-0XA0 | Expansion module<br>8 DI; DC 24 V | W                        |   |   | 05/<br>03 |
| ET 200X EM 141<br>DI 8xDC24V | 6ES7 141-1BF40-0XA0 | Expansion module<br>8 DI; DC 24 V | W                        |   |   | 05/<br>03 |

### 10.6 DO

| Product name                      | Article no.         | Brief description                                    | Properties<br>(Page 129) |   |   |           |
|-----------------------------------|---------------------|------------------------------------------------------|--------------------------|---|---|-----------|
|                                   |                     |                                                      | F                        | C | R | T         |
| ET 200X EM 142<br>DO 4xDC24V/2A   | 6ES7 142-1BD40-0XB0 | Expansion module<br>4 DO; 24 V / 2 A DC; diagnostics | W                        |   |   | 10/<br>08 |
| ET 200X EM 142<br>DO 8xDC24V/1.3A | 6ES7 142-1BF30-0XA0 | Expansion module<br>8 DO; DC 24 V / 1.3 A            | W                        |   |   | 10/<br>08 |

## 10.7 PS

| Product name   | Article no.         | Brief description                                                                                       | Properties<br>(Page 129) |   |   |           |
|----------------|---------------------|---------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                |                     |                                                                                                         | F                        | C | R | T         |
| ET 200X PM 148 | 6ES7 148-1CA00-0XB0 | Power supply for ET 200X;<br>4 DO; DC 24 V / 2 A; with load voltage supply; di-<br>agnostics by channel | W                        |   |   | 10/<br>08 |

## 10.8 Valve

| Product name                      | Article no.         | Brief description                                                          | Properties<br>(Page 129) |   |   |           |
|-----------------------------------|---------------------|----------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                   |                     |                                                                            | F                        | C | R | T         |
| ET 200X EM 148-P<br>DO 16xP/CPV10 | 6ES7 148-1EH01-0XA0 | Expansion module<br>16 DO P (coupling module for valve terminal CPV<br>10) | W                        |   |   | 10/<br>08 |
| ET 200X EM 148-P<br>DO 16xP/CPV14 | 6ES7 148-1EH11-0XA0 | Expansion module<br>16 DO P (coupling module for valve terminal CPV<br>14) | W                        |   |   | 10/<br>08 |



## ET 200pro

## 11.1 AI

| Product name                     | Article no.         | Brief description                                                         | Properties<br>(Page 129) |   |   |           |
|----------------------------------|---------------------|---------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                  |                     |                                                                           | F                        | C | R | T         |
| ET 200PRO EM 144<br>AI 4 x U     | 6ES7 144-4FF00-0AB0 | Analog input module<br>4 AI; $\pm 10$ V, $\pm 5$ V; 1 ... 5 V; 0 ... 10 V | W<br>Y                   |   |   | 03/<br>14 |
| ET 200PRO EM 144<br>AI 4 x I     | 6ES7 144-4GF00-0AB0 | Analog input module<br>4 AI; $\pm 20$ mA; 0 ... 20 mA; 4 ... 20 mA        | W<br>Y                   |   |   | 03/<br>14 |
| ET 200PRO EM 144<br>AI 4 x RTD   | 6ES7 144-4JF00-0AB0 | Analog input module<br>4 AI RTD                                           | W<br>Y                   |   |   |           |
| ET 200PRO EM 144<br>AI 4 x TC HF | 6ES7 144-4PF00-0AB0 | Analog input module<br>4 AI TC; high feature                              | W<br>Y                   |   |   |           |

## 11.2 AO

| Product name                 | Article no.         | Brief description                                                   | Properties<br>(Page 129) |   |   |   |
|------------------------------|---------------------|---------------------------------------------------------------------|--------------------------|---|---|---|
|                              |                     |                                                                     | F                        | C | R | T |
| ET 200PRO EM 145<br>AO 4 x U | 6ES7 145-4FF00-0AB0 | Analog output module<br>4 AO; $\pm 10$ V; 1 ... 5 V; 0 ... 10 V     | W<br>Y                   |   |   |   |
| ET 200PRO EM 145<br>AO 4 x I | 6ES7 145-4GF00-0AB0 | Analog output module<br>4 AO; $\pm 20$ mA; 0 ... 20 mA; 4 ... 20 mA | W<br>Y                   |   |   |   |

## 11.3 DI

| Product name                    | Article no.         | Brief description                                   | Properties<br>(Page 129) |   |   |   |
|---------------------------------|---------------------|-----------------------------------------------------|--------------------------|---|---|---|
|                                 |                     |                                                     | F                        | C | R | T |
| ET 200PRO EM 141<br>DI 8xDC 24V | 6ES7 141-4BF00-0AB0 | Digital input module<br>8 DI; 24 V DC; high feature | W<br>Y                   |   |   |   |

## 11.4 DO

| Product name                       | Article no.         | Brief description                                         | Properties<br>(Page 129) |   |   |   |
|------------------------------------|---------------------|-----------------------------------------------------------|--------------------------|---|---|---|
|                                    |                     |                                                           | F                        | C | R | T |
| ET 200PRO EM 142<br>DO 4xDC 24V/2A | 6ES7 142-4BD00-0AB0 | Digital output module<br>4 DO; 24 V / 2A DC; high feature | W<br>Y                   |   |   |   |

## 11.5 F\_DI

| Product name                         | Article no.         | Brief description                                                           | Properties<br>(Page 129) |   |   |   |
|--------------------------------------|---------------------|-----------------------------------------------------------------------------|--------------------------|---|---|---|
|                                      |                     |                                                                             | F                        | C | R | T |
| ET 200PRO EM 148<br>F-DI 8/16xDC 24V | 6ES7 148-4FA00-0AB0 | Digital input module<br>8 / 16 DI; DC 24 V;<br>PROFIsafe V2, safety-related | W<br>Y                   |   |   |   |

## 11.6 F\_DI/DO

| Product name                                           | Article no.         | Brief description                                                                           | Properties<br>(Page 129) |   |   |   |
|--------------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                                                        |                     |                                                                                             | F                        | C | R | T |
| ET 200PRO EM 148<br>F-DI 4/8xDC 24V<br>F-DO 4xDC24V/2A | 6ES7 148-4FC00-0AB0 | Digital input/output module<br>4 / 8 DI; 4 DODC 24 V / 2 A;<br>PROFIsafe V2, safety-related | W<br>Y                   |   |   |   |

## 11.7 IM

| Product name               | Article no.         | Brief description                                                                            | Properties<br>(Page 129) |   |   |           |
|----------------------------|---------------------|----------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                            |                     |                                                                                              | F                        | C | R | T         |
| ET 200PRO<br>IM154-2 DP HF | 6ES7 154-2AA00-0AB0 | PROFIBUS DP Interface module for ET 200pro;<br>high feature;<br>including termination module | W                        | X |   | 05/<br>10 |
| ET 200PRO<br>IM154-2 DP HF | 6ES7 154-2AA01-0AB0 | PROFIBUS DP Interface module for ET 200pro;<br>high feature;<br>including termination module | W<br>Y                   | X |   |           |

## 11.8 PS

| Product name              | Article no.         | Brief description                                                        | Properties<br>(Page 129) |   |   |   |
|---------------------------|---------------------|--------------------------------------------------------------------------|--------------------------|---|---|---|
|                           |                     |                                                                          | F                        | C | R | T |
| ET 200PRO<br>PM-E DC24V   | 6ES7 148-4CA00-0AA0 | Power supply for ET 200pro; DC<br>24 V                                   | W<br>Y                   |   |   |   |
| ET 200PRO PS 24 V/<br>8 A | 6ES7 148-4PC00-0HA0 | SIMATIC ET 200PRO PS, IP67;<br>Input: 3 AC 400-480 V output: DC 24 V/8 A |                          |   |   |   |

## 11.9 Connection modules

| Product name                     | Article no.         | Brief description                                                                   | Properties<br>(Page 129) |   |   |   |
|----------------------------------|---------------------|-------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                                  |                     |                                                                                     | F                        | C | R | T |
| CM IM DP ECOFAST                 | 6ES7 194-4AA00-0AA0 | Connection module<br>CM for IM ECOFAST CU DP                                        | Y                        |   |   |   |
| CM IM DP Direkt                  | 6ES7 194-4AC00-0AA0 | Connection module<br>CM for IM DP direct                                            | Y                        |   |   |   |
| CM IM DP M12 / 7/8"              | 6ES7 194-4AD00-0AA0 | Connection module<br>CM for IM DP M12 / 7 / 8"                                      | Y                        |   |   |   |
| CM PM ECOFAST                    | 6ES7 194-4BA00-0AA0 | Connection module<br>CM for PM ECOFAST                                              | Y                        |   |   |   |
| CM PM Direkt                     | 6ES7 194-4BC00-0AA0 | Connection module<br>CM for PM direct                                               | Y                        |   |   |   |
| CM PM 7/8"                       | 6ES7 194-4BD00-0AA0 | Connection module<br>CM for PM 7 / 8"                                               | Y                        |   |   |   |
| CM IO 4 x M12                    | 6ES7 194-4CA00-0AA0 | Connection module<br>CM for 4 IO M12                                                | Y                        |   |   |   |
| CM IO 8 x M12                    | 6ES7 194-4CB00-0AA0 | Connection module<br>CM for 8 IO M12                                                | Y                        |   |   |   |
| CM 12×M12 für<br>4/8 F-DI/4 F-DO | 6ES7 194-4DC00-0AA0 | Connection module<br>CM for the F-DI / DO-EM;<br>4 / 8 F-DI / 4 F-DO; DC 24 V / 2 A | Y                        |   |   |   |
| CM 16×M12 für<br>8/16 F-DI       | 6ES7 194-4DD00-0AA0 | Connection module<br>CM for the F-DI EM<br>8 / 16 F-DI; DC 24 V / 2 A               | Y                        |   |   |   |





## Gateway

### 12.1 IE/PB Link

#### Approved combinations

See *SIMATIC Net; S7-CPs for Industrial Ethernet; Manual, Part BL 1* for the approved combinations of interface modules, couplers and bus modules as well as for the available functions.

| Product name     | Article no.    | Brief description                                                                                                                                                                                                       | Properties (Page 129) |   |   |           |
|------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---|---|-----------|
|                  |                |                                                                                                                                                                                                                         | F                     | C | R | T         |
| IE/PB Link PN IO | 6GK1 411-5AB00 | IE/PB link<br>PROFINET IO proxy including real-time; gateway between Industrial Ethernet and Profibus; S7 routing; data record gateway; S7 slaves; DPV1 slaves; 10/100 Mbps Fast Ethernet; 9.6 Kbps to 12 Mbps PROFIBUS | W<br>P                |   |   | 04/<br>17 |
| IE/PB Link PN IO | 6GK1 411-5AB10 | IE/PB link<br>PROFINET IO proxy with real-time communication, S7 routing, data record routing, S7 slaves, DPV1 slaves; 10/100 Mbps Fast Ethernet; MRP; 9.6 Kbps to 12 Mbps PROFIBUS                                     | W<br>P                |   |   |           |

### 12.2 Y switch

| Product name              | Article no.         | Brief description                                            | Properties (Page 129) |   |   |   |
|---------------------------|---------------------|--------------------------------------------------------------|-----------------------|---|---|---|
|                           |                     |                                                              | F                     | C | R | T |
| Scalance<br>XF204-2BA DNA | 6GK5 204-2AA00-2YF2 | Managed Switch; 2x bus adapter interface; PROFINET IO device | W<br>P                |   |   |   |

## 12.3 PA Link

### Approved combinations

See *SIMATIC Bus links DP/PA coupler, active field distributor, PA Link and Y Link* documentation for the approved combinations of interface modules, couplers and bus modules and for the available functions.

| Product name        | Article no.<br>Firmware version | Brief description                                                                                                                                                                                             | Properties<br>(Page 129) |   |   |           |
|---------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                     |                                 |                                                                                                                                                                                                               | F                        | C | R | T         |
| IM 157              | 6ES7 157-0AA80-0XA0             | Interface module for PROFIBUS PA;<br>extended temperature range -25 ... 60 °C                                                                                                                                 | W                        | X |   | 06/<br>00 |
| IM 157              | 6ES7 157-0AA81-0XA0             | Interface module for PROFIBUS PA;<br>extended temperature range -25 ... 60 °C                                                                                                                                 | W                        | X |   | 12/<br>03 |
| IM 157              | 6ES7 157-0AA82-0XA0<br>V4.x     | Interface module for PA Link,<br>DP V1 to DP and PA;<br>module replacement during operation, information<br>function,<br>FW update via bus, extension of process control<br>functions                         | W                        | S |   | 06/<br>06 |
| IM 153-2 HF         | 6ES7 153-2BA01-0XB0<br>V4.x     | PA Link, DP V1 to DP and PA;<br>module replacement during operation, information<br>function,<br>FW update via bus, extension of process control<br>functions                                                 | W                        | S |   | 10/<br>09 |
| IM 153-2 Outdoor    | 6ES7 153-2BA81-0XB0<br>V4.x     | PA Link, Outdoor, DP V1 to DP and PA;<br>module replacement during operation, information<br>function,<br>FW update via bus, extension of process control<br>functions                                        | W                        | S |   | 10/<br>07 |
| IM 153-2 HF         | 6ES7 153-2BA02-0XB0<br>V5.x     | PA Link, DP V1 to DP and PA;<br>module replacement during operation, information<br>function,<br>FW update via bus, extension of process control<br>functions                                                 | W                        | S |   | 01/<br>16 |
| IM 153-2 HF Outdoor | 6ES7 153-2BA82-0XB0<br>V5.x     | PA Link, Outdoor, DP V1 to DP and PA;<br>module replacement during operation, information<br>function,<br>FW update via bus, extension of process control<br>functions                                        | W                        | S |   | 10/<br>16 |
| IM 153-2 HF Outdoor | 6ES7 153-2BA70-0XB0             | PA Link, DP V1 to DP and PA;<br>module replacement during operation, information<br>function,<br>FW update via bus, extension of process control<br>functions,<br>PA Link with extended field bus diagnostics | W                        | S |   |           |
| IM 153-2 HF         | 6ES7 153-2BA10-0XB0             | PA Link, DP V1 to DP and PA;<br>module replacement during operation, information<br>function,<br>FW update via bus, extension of process control<br>functions                                                 | W                        | S |   |           |

## 12.4 FF Link

### Approved combinations

See *SIMATIC Bus links FF Link bus link* documentation for the approved combinations of interface modules, couplers and bus modules and for the available functions.

| Product name        | Article no.<br>Firmware version | Brief description                                                                                                                                                                                   | Properties<br>(Page 129) |   |   |           |
|---------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                     |                                 |                                                                                                                                                                                                     | F                        | C | R | T         |
| IM 153-2 FF Outdoor | 6ES7 153-2DA80-0XB0             | Interface module for SIMATIC FF Link, capable of redundant operation; FOUNDATION Fieldbus Link Master, extended temperature range                                                                   | W                        |   |   | 10/<br>17 |
| FDC 157             | 6ES7 157-0AC84-0XA0             | Interface module for SIMATIC FF Link; physical interface for FOUNDATION Fieldbus H1, capable of redundant operation, with integrated bus supply up to 1 A; integrated diagnostics                   | W                        | S |   | 10/<br>16 |
| FDC 157             | 6ES7 157-0AC85-0XA0             | DP/FF coupler;<br>Interface module for SIMATIC FF Link; physical interface for FOUNDATION Fieldbus H1, capable of redundant operation, with integrated bus supply up to 1 A; integrated diagnostics | W                        | S |   |           |

## 12.5 Compact FF Link

### Approved combinations

You can find additional information in the *SIMATIC Bus links; Compact FF Link bus link* documentation.

| Product name    | Article no.<br>Firmware version | Brief description                                                                                                                                                                         | Properties<br>(Page 129) |   |   |   |
|-----------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                 |                                 |                                                                                                                                                                                           | F                        | C | R | T |
| Compact FF Link | 6ES7 655-5BA00-0AB0             | Interface for FOUNDATION Fieldbus; FOUNDATION Fieldbus Link Master; for redundant operation; integrated diagnostics<br>extended temperature range; with integrated bus supply up to 0.5 A | W                        |   |   |   |

## 12.6 Y Link

### Approved combinations

See *SIMATIC Bus links DP/PA coupler, active field distributor, PA Link and Y Link* documentation for the approved combinations of interface modules, couplers and bus modules and for the available functions.

| Product name | Article no.         | Brief description                                                                                                                    | Properties (Page 129) |   |   |       |
|--------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---|---|-------|
|              |                     |                                                                                                                                      | F                     | C | R | T     |
| Y coupler    | 6ES7 654-0YK00-0AB0 | Y coupler; star connection for connection of single-channel I/O to H system; single interface module                                 |                       |   |   | 10/06 |
| Y coupler    | 6ES7 197-1LB00-0XA0 | Y coupler; star connection for connection of single-channel I/O to H system; single interface module with integrated RS 485 repeater |                       |   |   |       |
| Y Link       | 6ES7 197-1LA12-0XA0 | Y Link for connecting single-channel DP slaves to S7-400H and AS 410H                                                                | W                     |   |   |       |

## 12.7 DP/PA coupler

### Approved combinations

See *SIMATIC Bus links DP/PA coupler, active field distributor, PA Link and Y-Link* documentation for the approved combinations of interface modules, couplers and bus modules and for the available functions.

| Product name  | Article no.         | Brief description                                                                         | Properties (Page 129) |   |   |       |
|---------------|---------------------|-------------------------------------------------------------------------------------------|-----------------------|---|---|-------|
|               |                     |                                                                                           | F                     | C | R | T     |
| DP/PA coupler | 6ES7 157-0AC00-0XA0 | DP/PA coupler                                                                             |                       |   |   | 04/00 |
| DP/PA coupler | 6ES7 157-0AC80-0XA0 | DP/PA coupler, non-ex; (outdoor); 400 mA                                                  |                       |   |   | 05/04 |
| DP/PA coupler | 6ES7 157-0AC81-0XA0 | DP/PA coupler, non-ex; (outdoor); 400 mA                                                  |                       |   |   | 04/05 |
| DP/PA coupler | 6ES7 157-0AC82-0XA0 | DP/PA coupler, non-ex; (outdoor); 1000 mA, 31 V                                           |                       |   |   | 07/07 |
| DP/PA coupler | 6ES7 157-0AC83-0XA0 | DP/PA coupler, non-ex; (outdoor); for redundant operation                                 |                       |   | A | 10/16 |
| DP/PA coupler | 6ES7 157-0AC85-0XA0 | DP/PA coupler, non-ex; (outdoor); for redundant operation; extended field bus diagnostics |                       |   | A |       |
| DP/PA coupler | 6ES7 157-0AD00-0XA0 | DP/PA coupler, ex(i)                                                                      |                       |   |   | 07/01 |

| Product name      | Article no.         | Brief description                                                                                   | Properties<br>(Page 129) |   |   |           |
|-------------------|---------------------|-----------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                   |                     |                                                                                                     | F                        | C | R | T         |
| DP/PA coupler     | 6ES7 157-0AD80-0XA0 | DP/PA coupler, ex(ib);<br>extended environmental conditions                                         |                          |   |   | 12/<br>03 |
| DP/PA coupler, ex | 6ES7 157-0AD81-0XA0 | DP/PA coupler;<br>extended environmental conditions (ia), FM certification                          |                          |   |   | 05/<br>04 |
| DP/PA coupler, ex | 6ES7 157-0AD82-0XA0 | DP/PA coupler;<br>extended environmental conditions (ia), FM certification, dust type certification |                          |   |   |           |

## 12.8 Optical link module

### Approved combinations

See the *SIMATIC Bus Links DP/PA Coupler, Active Field Distributors, PA Link and Y-Link* manual for the approved combinations of interface modules, couplers and bus modules and for the available functions.

| Product name     | Article no.<br>Firmware version | Brief description                                                                                                                                         | Properties<br>(Page 129) |   |   |   |
|------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                  |                                 |                                                                                                                                                           | F                        | C | R | T |
| PROFIBUS OLM P11 | 6GK1 503-2CA00<br>V4.x          | Optical Link Module;<br>1 RS 485<br>1 fiber-optic interface (2 BFOC - POF/PCF);<br>signal contact and measurement output,<br>including 2 BFOC connectors  |                          |   |   |   |
| PROFIBUS OLMP12  | 6GK1 503-3CA00<br>V4.x          | Optical Link Module;<br>1 RS 485<br>2 fiber-optic interfaces (4 BFOC - POF/PCF);<br>signal contact and measurement output,<br>including 4 BFOC connectors |                          |   |   |   |
| PROFIBUS OLM G11 | 6GK1 503-2CB00<br>V4.x          | Optical Link Module;<br>1 RS 485<br>1 fiber-optic interface (2 BFOC - multimode fiber-optic cable);<br>signal contact and measurement output              |                          |   |   |   |
| PROFIBUS OLM G12 | 6GK1 503-3CB00<br>V4.x          | Optical Link Module;<br>1 RS 485<br>1 fiber-optic interface (2 BFOC - multimode fiber-optic cable);<br>signal contact and measurement output              |                          |   |   |   |

| Product name             | Article no.<br>Firmware version | Brief description                                                                                                                                                                          | Properties<br>(Page 129) |   |   |   |
|--------------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                          |                                 |                                                                                                                                                                                            | F                        | C | R | T |
| PROFIBUS OLM<br>G12-EEC  | 6GK1 503-3CD00<br>V4.x          | Optical Link Module;<br>1 RS 485<br>2 fiber-optic interface (4 BFOC - multimode fiber-optic cable);<br>signal contact and measurement output,<br>extended temperature range -20 ... +60 °C |                          |   |   |   |
| PROFIBUS OLM<br>G11-1300 | 6GK1 503-2CC00<br>V4.x          | Optical Link Module;<br>1 RS 485<br>1 fiber-optic interface (2 BFOC - single-mode fiber-optic cable) wavelength 1300 nm for large distances,<br>signal contact and measurement output      |                          |   |   |   |
| PROFIBUS OLM<br>G12-1300 | 6GK1 503-3CC00<br>V4.x          | Optical Link Module;<br>1 RS 485<br>2 fiber-optic interface (4 BFOC - single-mode fiber-optic cable) wavelength 1300 nm for large distances,<br>signal contact and measurement output      |                          |   |   |   |
| PROFIBUS OLM<br>G22      | 6GK1 503-4CB00<br>V4.x          | Optical Link Module;<br>2 RS 485<br>2 fiber-optic interface (2 BFOC)<br>signal contact and measurement output                                                                              |                          |   |   |   |

## 12.9 Active field distributors

### Approved combinations

See *SIMATIC*

*Bus links DP/PA coupler, active field distributor, PA Link and Y-Link* documentation for the approved combinations of interface modules, couplers and bus modules and for the available functions.

| Product name                      | Article no.         | Brief description                                                                                                      | Properties<br>(Page 129) |   |   |           |
|-----------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                   |                     |                                                                                                                        | F                        | C | R | T         |
| Active field distributor<br>AFS   | 6ES7 157-0AG80-0XA0 | Active field distributor AFS<br>for PROFIBUS PA and FOUNDATION Fieldbus H1;<br>coupler redundancy                      |                          |   |   |           |
| Active field distributor<br>AFD4  | 6ES7 157-0AG81-0XA0 | Active field distributor AFD4<br>for PROFIBUS PA and FOUNDATION Fieldbus H1;<br>ring redundancy; 4 spur lines          |                          |   |   |           |
| Active field distributor<br>AFD8  | 6ES7 157-0AG82-0XA0 | Active field distributor AFD8<br>for PROFIBUS PA and FOUNDATION Fieldbus H1;<br>ring redundancy; 8 spur lines          |                          |   |   |           |
| Active field distributor<br>AFDiS | 6ES7 157-0AG83-0XA0 | Active field distributor AFDiS<br>for PROFIBUS PA and FOUNDATION Fieldbus H1;<br>Zone 1; ring redundancy; 6 spur lines |                          |   |   | 05/<br>16 |

| Product name                            | Article no.         | Brief description                                                                                                                                | Properties<br>(Page 129) |   |   |   |
|-----------------------------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                                         |                     |                                                                                                                                                  | F                        | C | R | T |
| Active field distributor AFD4 FM        | 6ES7 655-5DX40-1AA1 | Active field distributor AFD4 FM for PROFIBUS PA and FOUNDATION Fieldbus H1; ring redundancy; 4 spur lines                                       |                          |   |   |   |
| Active field distributor AFD4 RAILMOUNT | 6ES7 655-5DX40-2AA0 | Active field distributor AFD4 RAILMOUNT for PROFIBUS PA and FOUNDATION Fieldbus H1; ring redundancy; 4 spur lines; mounting on DIN mounting rail |                          |   |   |   |
| Active field distributor AFDiSD         | 6ES7 655-5DX60-1BB0 | Active field distributor AFDiSD with diagnostics for PROFIBUS PA and FOUNDATION Fieldbus H1; ring redundancy; 6 spur lines                       |                          |   |   |   |

## 12.10 Accessories

### Approved combinations

See the corresponding manuals for the approved combinations of interface modules and bus modules and for the available functions.

| Product name            | Article no.         | Brief description                                                                                                                                                                                                       | Properties<br>(Page 129) |   |   |           |
|-------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                         |                     |                                                                                                                                                                                                                         | F                        | C | R | T         |
| BM PS/IM SIPLUS extreme | 6AG1 195-7HA00-2XA0 | Bus module for IM 153-2 High Feature / IM 153-2 FF<br>Active bus module for 1 load power supply and 1 module; for "hot swap in runtime" function, extended temperature range -25 to +70 °C                              |                          |   |   |           |
| BM PS/IM                | 6ES7 195-7HA00-0XA0 | Bus module for IM 153<br>Active bus module for 1 power supply and 1 module                                                                                                                                              |                          |   |   |           |
| BM IM/IM                | 6ES7 195-7HD80-0XA0 | Bus module for IM 157 / IM 153-2 High Feature / IM 153-2 FF<br>Active bus module for 2 modules; for redundant and non-redundant configuration; "hot swap in runtime" function, extended temperature range -25 to +60 °C |                          |   |   |           |
| BM IM/IM                | 6ES7 195-7HD10-0XA0 | Bus module for IM 153-2<br>Bus module for redundant IM mode; "hot swap in runtime" function                                                                                                                             |                          |   |   |           |
| BM                      | 6ES7 195-7HE80-0XA0 | Bus module for IM 157<br>Bus module for redundant configuration of the IM 157 and module hot swap in runtime; temperature range -25 to +60 °C                                                                           |                          |   |   | 07/<br>14 |
| BM FDC                  | 6ES7 195-7HF80-0XA0 | Bus module for 1 DP/PA coupler Ex(i) / FDC 157-0 / 1 field device coupler<br>Active bus module for "hot swap in runtime" function, extended temperature range -25 to +60 °C                                             |                          |   |   |           |

| Product name       | Article no.         | Brief description                                                                                                                                                                           | Properties<br>(Page 129) |   |   |   |
|--------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                    |                     |                                                                                                                                                                                             | F                        | C | R | T |
| BM FDC/FDC         | 6ES7 195-7HG80-0XA0 | Bus module for 2 DP/PA couplers / 2 field device couplers<br>Active bus module for redundant configuration; for "hot swap in runtime" function, extended temperature range -25 to +60 °C    |                          |   |   |   |
| BM                 | 6ES7 654-7HY00-0XA0 | Bus module for Y coupler                                                                                                                                                                    |                          |   |   |   |
| BM Compact FF Link | 6ES7655-5EF00-0AA0  | Bus module for Compact FF Link<br>Active bus module for 2 modules; for redundant and non-redundant configuration; "hot swap in runtime" function, extended temperature range -25 ... +60 °C |                          |   |   |   |



## Repeater

## 13.1 Repeater

| Product name        | Article no.         | Brief description                                                                                                                          | Properties<br>(Page 129) |   |   |           |
|---------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                     |                     |                                                                                                                                            | F                        | C | R | T         |
| Diagnostic Repeater | 6ES7 972-0AB00-0XA0 | Diagnostic repeater for line diagnostics on the PROFIBUS-DP (RS 485);<br>IP 20, to 12 Mbps, DP V0-Slave                                    | W                        | X |   | 02/<br>03 |
| Diagnostic Repeater | 6ES7 972-0AB01-0XA0 | Diagnostic repeater for line diagnostics on the PROFIBUS-DP (RS 485);<br>IP 20, to 12 Mbps, DP V1-Slave                                    | W<br>Y                   | X |   |           |
| RS 485 repeater     | 6ES7 972-0AA01-0XA0 | RS 485 repeater; for connecting PROFIBUS/MPI bus systems to a max. of 31 nodes. Max. transmission rate 12 Mbps; IP 20 degree of protection |                          |   |   | 05/<br>11 |
| RS 485 repeater     | 6ES7 972-0AA02-0XA0 | RS 485 repeater; for connecting PROFIBUS/MPI bus systems to a max. of 31 nodes. Max. transmission rate 12 Mbps; IP 20 degree of protection |                          |   |   |           |



## Network Components

### 14.1 IE OSM - ESM

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**Note**

All product types, modules, and accessories of SIMATIC NET released for this product family can also be used for PCS 7.

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### 14.2 SCALANCE XB-000

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**Note**

All product types, modules, and accessories of SIMATIC NET released for this product family can also be used for PCS 7.

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### 14.3 SCALANCE X100

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**Note**

All product types, modules, and accessories of SIMATIC NET released for this product family can also be used for PCS 7.

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### 14.4 SCALANCE XC-100

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**Note**

All product types, modules, and accessories of SIMATIC NET released for this product family can also be used for PCS 7.

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## 14.5 SCALANCE X200

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**Note**

All product types, modules, and accessories of SIMATIC NET released for this product family can also be used for PCS 7.

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**Note**

Has been released for PROFINET as of firmware V4.0.

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## 14.6 SCALANCE XB200

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**Note**

All product types, modules, and accessories of SIMATIC NET released for this product family can also be used for PCS 7.

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**Note**

Has been released for PROFINET as of firmware V1.2.

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## 14.7 SCALANCE XP200

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**Note**

All product types, modules, and accessories of SIMATIC NET released for this product family can also be used for PCS 7.

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**Note**

Recommended for use in PROFINET.

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## 14.8 SCALANCE XF200

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**Note**

All product types, modules, and accessories of SIMATIC NET released for this product family can also be used for PCS 7.

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**Note**

Recommended for use in PROFINET.

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## 14.9 SCALANCE XC200

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**Note**

All product types, modules, and accessories of SIMATIC NET released for this product family can also be used for PCS 7.

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**Note**

Recommended for use in PROFINET.

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## 14.10 SCALANCE X300

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**Note**

All product types, modules, and accessories of SIMATIC NET released for this product family can also be used for PCS 7.

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**Note**

Has been released for PROFINET as of firmware V3.0.

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## 14.11 SCALANCE XR300 Modular

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**Note**

All product types, modules, and accessories of SIMATIC NET released for this product family can also be used for PCS 7.

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**Note**

Has been released for PROFINET as of firmware V3.0.

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## 14.12 SCALANCE X400

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**Note**

All product types, modules, and accessories of SIMATIC NET released for this product family can also be used for PCS 7.

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**Note**

Has been released for PROFINET as of firmware V3.0.

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## 14.13 SCALANCE XM400

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**Note**

All product types, modules, and accessories of SIMATIC NET released for this product family can also be used for PCS 7.

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## 14.14 SCALANCE XR500 Modular

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**Note**

All product types, modules, and accessories of SIMATIC NET released for this product family can also be used for PCS 7.

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## 14.15 SCALANCE S600 (Industrial Security Module)

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### Note

All product types, modules, and accessories of SIMATIC NET released for this product family can also be used for PCS 7.

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## 14.16 SCALANCE W700 (WLAN)

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### Note

All product types, modules, and accessories of SIMATIC NET released for this product family can also be used for PCS 7.

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## 15.1 CP Ethernet

| Product name | Article no.    | Brief description                                                                                                                                                          | Properties<br>(Page 129) |   |   |           |
|--------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|              |                |                                                                                                                                                                            | F                        | C | R | T         |
| CP 1613 A2   | 6GK1 161-3AA01 | SIMATIC NET CP 1613 Industrial Ethernet; Iso, TCP/IP, S7 connections, programming device functions, PCI network card; RJ45 connection                                      |                          |   |   |           |
| CP 1623      | 6GK1 162-3AA00 | SIMATIC NET CP 1623 Industrial Ethernet; Iso, TCP/IP, S7 connections, programming device functions, PCI-E (Express) network card; 2-port switch; RJ45 port                 |                          |   |   |           |
| CP 1628      | 6GK1 162-8AA00 | SIMATIC NET CP 1628 Industrial Ethernet; Iso, TCP/IP, S7 connections, programming device functions, PCI-E (Express) X1; 2-port switch; RJ45 connector; Integrated Security |                          |   |   |           |
| CP 1512      | 6GK1 151-2AA00 | SIMATIC NET CP 1512 Industrial Ethernet; Iso, TCP/IP, S7 connections, programming device functions, PCMCIA<br><b>only in connection with PCS 7 ES</b>                      |                          |   |   | 07/<br>06 |
| CP 1612      | 6GK1 161-2AA00 | SIMATIC NET CP 1612 Industrial Ethernet; Iso, TCP/IP, S7 connections, programming device functions, PCI network card ; RJ45 port                                           |                          |   |   | 06/<br>06 |

## 15.2 CP PROFIBUS

| Product name | Article no.    | Brief description                                                                                  | Properties<br>(Page 129) |   |   |           |
|--------------|----------------|----------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|              |                |                                                                                                    | F                        | C | R | T         |
| CP 5611      | 6GK1 561-1AA00 | SIMATIC NET CP 5611 PROFIBUS;<br>PCI bus,<br><b>Only in combination with SIMATIC PDM !</b>         | W                        |   |   | 07/<br>05 |
| CP 5611 A2   | 6GK1 561-1AA01 | SIMATIC NET CP 5611 A2 PROFIBUS;<br>PCI bus V2.2,<br><b>Only in combination with SIMATIC PDM !</b> | W                        |   |   | 10/<br>15 |

## 15.4 Network adapter

| Product name | Article no.    | Brief description                                                             | Properties<br>(Page 129) |   |   |           |
|--------------|----------------|-------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|              |                |                                                                               | F                        | C | R | T         |
| CP 5613      | 6GK1 561-3AA00 | SIMATIC NET CP 5613 PROFIBUS;<br>PCI bus,<br>DP master for DP-V0 /-V1         | W                        |   |   | 01/<br>06 |
| CP 5613 A2   | 6GK1 561-3AA01 | SIMATIC NET CP 5613 A2 PROFIBUS;<br>PCI bus V2.2,<br>DP master for DP-V0 /-V1 | W                        |   |   | 10/<br>15 |

## 15.3 CP IWLAN

| Product name | Article no.    | Brief description                             | Properties<br>(Page 129) |   |   |           |
|--------------|----------------|-----------------------------------------------|--------------------------|---|---|-----------|
|              |                |                                               | F                        | C | R | T         |
| CP 7515      | 6GK1 751-5AA00 | SIMATIC NET CP 7515 Industrial WLAN<br>PCMCIA |                          |   |   | 07/<br>06 |

## 15.4 Network adapter

| Product name                            | Article no.         | Brief description                                                                                                                                                                                                                                                                       | Properties<br>(Page 129) |   |   |   |
|-----------------------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                                         |                     |                                                                                                                                                                                                                                                                                         | F                        | C | R | T |
| Server adapter network card<br>PCI-E    | A5E01579487         | Server adapter network card for BCE;<br>Intel PCI-E (Express) network card for connecting<br>to Industrial Ethernet (10/100/1000 Mbps); RJ45<br>port;<br>replacement part for redundant terminal bus                                                                                    |                          |   |   |   |
| Desktop adapter network card<br>PCI-E   | A5E01579552         | Desktop adapter network card for BCE;<br>Intel PCI-E (Express) network card for connecting<br>to Industrial Ethernet (10/100/1000 Mbps); RJ45<br>port;<br>replacement part for redundant terminal bus                                                                                   |                          |   |   |   |
| Redundant terminal bus adapter<br>PCI-E | 6ES7 652-0XX01-1XF1 | Redundant terminal bus adapter package;<br><ul style="list-style-type: none"> <li>• each with 1x server adapter network card PCI-E</li> <li>• each with 1x desktop adapter network card PCI-E</li> </ul> for connection to Industrial Ethernet (10/100/1000<br>Mbps);<br>RJ45 connector |                          |   |   |   |

## 15.5 Graphics cards

Graphics cards are products of third-party manufacturers.

| Product name | Article no.         | Brief description                                                 | Properties<br>(Page 129) |   |   |   |
|--------------|---------------------|-------------------------------------------------------------------|--------------------------|---|---|---|
|              |                     |                                                                   | F                        | C | R | T |
|              | 6ES7 652-0XX04-1XE0 | M9120 Plus LP<br>PCIe x16 multi-monitor graphics card "2 Screens" |                          |   |   |   |
|              | 6ES7 652-0XX04-1XE1 | M9140 LP<br>PCIe x16 multi-monitor graphics card "4 Screens"      |                          |   |   |   |

## 15.6 Signal modules

| Product name | Article no.  | Brief description                                               | Properties<br>(Page 129) |   |   |           |
|--------------|--------------|-----------------------------------------------------------------|--------------------------|---|---|-----------|
|              |              |                                                                 | F                        | C | R | T         |
|              | 6DS1 916-8RR | Signal module, PCI card for installation in an operator station |                          |   |   | 07/<br>17 |

## 15.7 Printers

Printers are products of third-party manufacturers.

| Product name | Article no.    | Brief description                                                                                                                    | Properties<br>(Page 129) |   |   |   |
|--------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|              |                |                                                                                                                                      | F                        | C | R | T |
|              | 3P7217B00APF01 | MicroLaser 170 laser printer;<br>rapid laser printer (monochrome),<br>with Centronics interface,<br>optional network card, 12 MB RAM |                          |   |   |   |
|              | 3P74C4B00APQ01 | MicroLaser C4 laser printer;<br>high-resolution, network-ready color laser printer;<br>network card, 24 MB RAM, GNC:                 |                          |   |   |   |

## 15.8 Chip card reader

| Product name | Article no.         | Brief description                                                        | Properties<br>(Page 129) |   |   |   |
|--------------|---------------------|--------------------------------------------------------------------------|--------------------------|---|---|---|
|              |                     |                                                                          | F                        | C | R | T |
|              | 6ES7 652-0XX02-1XC0 | Smart card reader, desktop version,<br>V2.0 smart card reader, USB port, |                          |   |   |   |



## PC-based automation

### 16.1 Controller

| Product name          | Article no.<br>Firmware version | Brief description                                                                                                                                                                 | Properties<br>(Page 129) |   |   |           |
|-----------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                       |                                 |                                                                                                                                                                                   | F                        | C | R | T         |
| PCS 7 AS mEC RTX 2010 | 6ES7 654-0MC23-0XX0<br>V1.2     | SIMATIC S7 modular embedded controller;<br>EC31;<br>1GB RAM, 4GB flash disk;<br>SDK ports:<br>1. port: 2X PROFINET,<br>2nd port: 1X FAST ETHERNET,<br>3rd port: 2 X USB, MMC SLOT | W<br>P                   |   |   | 10/<br>15 |

### 16.2 PCS 7 BOX RTX

| Product name       | Article no.         | Brief description                                                                                   | Properties<br>(Page 129) |   |   |   |
|--------------------|---------------------|-----------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                    |                     |                                                                                                     | F                        | C | R | T |
| PCS 7 BOX RTX 2010 | 6ES7 650-4A...-.... | Based on BOX PC 627C;<br>WinAC RTX 2010 software CPU;<br>1x CP 5611-compatible connection           | W                        |   |   |   |
| PCS 7 BOX RTX 2010 | 6ES7 650-4B...-.... | Based on BOX PC 627D;<br>WinAC RTX 2010 software CPU;<br>1x CP 5622compatible, 1x CP 1616compatible | W                        |   |   |   |

## 16.3 PCS 7 AS RTX

| Product name         | Article no.         | Brief description                                                                                                                                                                                                                         | Properties<br>(Page 129) |   |   |           |
|----------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                      |                     |                                                                                                                                                                                                                                           | F                        | C | R | T         |
| PCS 7 AS<br>RTX 2008 | 6ES7 654-0UE12-0XX0 | Based on Microbox 427B;<br>1.4 GHz; 1GB RAM; 4GB flash drive;<br>CP 5611 onboard;<br>WinAC RTX 2008 software CPU;<br>preinstalled for PCS 7 operation<br>(may be used from PCS 7 V7.0 SP3 );<br>AS Runtime license (PO250)                | W                        |   |   | 11/<br>10 |
| PCS 7 AS<br>RTX 2010 | 6ES7 654-0UE13-0XX0 | Based on Microbox 427C;<br>Core2 Duo 1.2 GHz; 2GB DDR3 RAM;<br>4GB CompactFlash; CP 5611 onboard;<br>WinAC RTX 2010 software CPU;<br>preinstalled for PCS 7 operation<br>(may be used from PCS 7 V7.1 SP2);<br>AS Runtime license (PO100) | W                        |   |   | 02/<br>16 |
| PCS 7 AS<br>RTX 2010 | 6ES7 654-0UE23-0XX1 | Based on Microbox 427D;<br>1x CP 5622 onboard; PROFIBUS;<br>WinAC RTX 2010 software CPU;                                                                                                                                                  | W                        |   |   |           |
| PCS 7 AS<br>RTX 2010 | 6ES7 654-0UE23-0XX2 | Based on Microbox 427D;<br>1x CP 1616 onboard (3 ports); PROFINET;<br>WinAC RTX 2010 software CPU;                                                                                                                                        | W<br>P                   |   |   |           |

## PCS 7 partner modules

## 17.1 SICLOCK

| Product name  | Article no.    | Brief description                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Properties<br>(Page 129) |   |   |           |
|---------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|               |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | F                        | C | R | T         |
|               | 2XV9 450-1AR13 | WinGPS for Windows 95 / NT;<br>GPS receiver for time synchronization suitable for global use, assembly material included                                                                                                                                                                                                                                                                                                                                                         |                          |   |   | 05/<br>11 |
|               | 2XV9 450-1AR14 | DCF77 for Windows 95 / NT;<br>DCF 77 receiver for time synchronization in Europe, assembly material included                                                                                                                                                                                                                                                                                                                                                                     |                          |   |   | 04/<br>16 |
| SICLOCK TC400 | 2XV9 450-2AR01 | SICLOCK TC400; time transmitter<br>Synchronization of the nodes connected via Industrial Ethernet <ul style="list-style-type: none"> <li>• 4 independent Ethernet ports</li> <li>• 3 outputs for point-to-point connections with TTY/24 V and RS 422/5 V</li> <li>• Terminal for radio controlled clocks, outputs and alarm</li> <li>• 19" RACK for SICLOCK TC400 (2XV9450-2AR81)</li> </ul>                                                                                     |                          |   |   |           |
| SICLOCK TC400 | 2XV9 450-2AR10 | SICLOCK TC400; time transmitter, complete package with SICLOCK GPS1000 radio controlled clock;<br>24 V to 110 V DC;<br>Synchronization of the nodes connected via Industrial Ethernet <ul style="list-style-type: none"> <li>• 4 independent Ethernet ports</li> <li>• 3 outputs for point-to-point connections with TTY/24 V and RS 422/5 V</li> <li>• Terminal for radio controlled clocks, outputs and alarm</li> <li>• 19" RACK for SICLOCK TC400 (2XV9450-2AR81)</li> </ul> |                          |   |   | 04/<br>16 |

17.1 SICLOCK

| Product name  | Article no.    | Brief description                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Properties<br>(Page 129) |   |   |       |
|---------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-------|
|               |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | F                        | C | R | T     |
| SICLOCK TC400 | 2XV9 450-2AR20 | SICLOCK TC400; time transmitter DCFRS; complete package with radio clock SICLOCK DCFRS; 24 V to 110 V DC;<br>Synchronization of the nodes connected via Industrial Ethernet <ul style="list-style-type: none"> <li>• 4 independent Ethernet ports</li> <li>• 3 outputs for point-to-point connections with TTY/24 V and RS 422/5 V</li> <li>• Terminal for radio controlled clocks, outputs and alarm</li> <li>• 19" RACK for SICLOCK TC400 (2XV9450-2AR81)</li> </ul> |                          |   |   | 02/17 |
| SICLOCK TC100 | 2XV9 450-2AR22 | SICLOCK TC100; time transmitter 24 V DC;<br>Synchronization of the nodes connected via Industrial Ethernet <ul style="list-style-type: none"> <li>• 1 Ethernet port 10/100 Mbps, autonegotiation</li> <li>• Radio controlled clock input, relay outputs</li> </ul>                                                                                                                                                                                                     |                          |   |   |       |
| SICLOCK TC100 | 2XV9 450-2AR26 | SICLOCK TC100 and DCF77 time receiver, consisting of master system clock TC100, DCFRS radio receiver 24 V DC;<br>Synchronization of the nodes connected via Industrial Ethernet <ul style="list-style-type: none"> <li>• 1 Ethernet port 10/100 Mbps, autonegotiation</li> <li>• Radio controlled clock input, relay outputs</li> </ul>                                                                                                                                |                          |   |   | 02/17 |
| SICLOCK TC100 | 2XV9 450-2AR50 | SICLOCK TC100 and GPS radio receiver and lightning protection, consisting of master system clock TC100, GPS1000 radio receiver; 24 V DC;<br>Synchronization of the nodes connected via Industrial Ethernet <ul style="list-style-type: none"> <li>• 1 Ethernet port 10/100 Mbps, autonegotiation</li> <li>• Radio controlled clock input, relay outputs</li> </ul>                                                                                                     |                          |   |   | 04/16 |
| SICLOCK TM    | 2XV9 450-1AR24 | SICLOCK TM time transmitter; complete package GPS; 24 V to 110 V DC;<br>for synchronizing the nodes connected via Industrial Ethernet                                                                                                                                                                                                                                                                                                                                  |                          |   |   | 09/11 |
| SICLOCK TM    | 2XV9 450-1AR25 | SICLOCK TM time transmitter; GPS complete package; 90 V to 240 V AC/DC,<br>for synchronizing the nodes connected via Industrial Ethernet                                                                                                                                                                                                                                                                                                                               |                          |   |   | 09/11 |



| Product name | Article no.    | Brief description                                                                                                                              | Properties<br>(Page 129) |   |   |           |
|--------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|              |                |                                                                                                                                                | F                        | C | R | T         |
| SICLOCK TM   | 2XV9 450-1AR26 | SICLOCK TM time transmitter; complete package DCF77;<br>24 V to 110 V DC;<br>for synchronizing the nodes connected via Industrial Ethernet     |                          |   |   | 09/<br>11 |
| SICLOCK TM   | 2XV9 450-1AR27 | SICLOCK TM time transmitter, complete package DCF77;<br>90 V to 240 V; AC/DC;<br>for synchronizing the nodes connected via Industrial Ethernet |                          |   |   | 09/<br>11 |

## 17.2 SITOP

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### Note

PCS 7 supports SITOP products.

You will find additional information on the PCS 7 Add-on catalog.

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## 17.3 SIMOCODE

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### Note

PCS 7 supports SIMOCODE products.

You will find additional information on the PCS 7 Add-on catalog.

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## 17.4 SIMODRIVE

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### Note

PCS 7 supports SIMODRIVE products.

You will find additional information on the PCS 7 Add-on catalog.

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## 17.5 SINAMICS

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**Note**

PCS 7 supports SINAMICS products.

You will find additional information on the PCS 7 Add-on catalog.

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## 18.1 CP PtP

| Product name | Article no.         | Brief description                                                                                                                      | Properties<br>(Page 129) |   |   |           |
|--------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|              |                     |                                                                                                                                        | F                        | C | R | T         |
| CP341-1A     | 6ES7 341-1AH01-0AE0 | Com. processor,<br>RS 232 interface, rechargeable drivers                                                                              | W                        | M |   | 12/<br>08 |
| CP341-1A     | 6ES7 341-1AH02-0AE0 | Com. processor,<br>RS 232 interface, rechargeable drivers;<br>frame length 4 KB, data transmission rate 115<br>Kbps,<br>printer driver | W<br>P<br>SM             | M |   |           |
| CP341-1B     | 6ES7 341-1BH01-0AE0 | Com. processor,<br>TTY interface, rechargeable drivers                                                                                 | W                        | M |   | 12/<br>08 |
| CP341-1B     | 6ES7 341-1BH02-0AE0 | Com. processor,<br>TTY interface, rechargeable drivers;<br>frame length 4 KB, data transmission rate 115<br>Kbps,<br>printer driver    | W<br>P<br>SM             | M |   |           |
| CP341-1C     | 6ES7 341-1CH01-0AE0 | Com. processor,<br>RS 422 interface, rechargeable drivers                                                                              | W                        | M |   | 12/<br>08 |
| CP341-1C     | 6ES7 341-1CH02-0AE0 | Com. processor,<br>RS 422 interface, rechargeable drivers;<br>frame length 4 KB, data transmission rate 115<br>Kbps,<br>printer driver | W<br>P<br>SM             | M |   |           |

## 18.2 FM

| Product name           | Article no.<br>Firmware version | Brief description                                                                                            | Properties<br>(Page 129) |   |   |           |
|------------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                        |                                 |                                                                                                              | F                        | C | R | T         |
| FM350-1<br>COUNTER     | 6ES7 350-1AH03-0AE0<br>V1.0.2   | Counter module,<br>1 channel;<br>can also be installed with active bus modules,<br>supports isochronous mode | W<br>P<br>SM             | M |   |           |
| FM350-2<br>COUNTER     | 6ES7 350-2AH00-0AE0             | Counter module,<br>8 channels                                                                                | W                        | M |   | 10/<br>08 |
| FM350-2<br>COUNTER     | 6ES7 350-2AH01-0AE0             | Counter module,<br>8 channels                                                                                | W<br>P                   | M |   |           |
| FM355 C<br>PID Control | 6ES7 355-0VH10-0AE0             | Control module.<br>4 channels; (continuous) 4 AI + 8 DI + 4 AO; V2.0                                         | W<br>P                   | M |   |           |

| Product name           | Article no.<br>Firmware version | Brief description                                                          | Properties<br>(Page 129) |   |   |   |
|------------------------|---------------------------------|----------------------------------------------------------------------------|--------------------------|---|---|---|
|                        |                                 |                                                                            | F                        | C | R | T |
| FM355 S<br>PID Control | 6ES7 355-1VH10-0AE0             | Control module<br>4 channels; (step and pulse) 4 AI + 8 DI + 8 DO;<br>V2.0 | W<br>P                   | M |   |   |
| FM355-2 C              | 6ES7 355-2CH00-0AE0             | Control module<br>4 channels;<br>temperature controller                    | W<br>P                   | M |   |   |
| FM355-2 S              | 6ES7 355-2SH00-0AE0             | Control module<br>4 channels;<br>temperature controller                    | W<br>P                   | M |   |   |

## 18.3 PS

| Product name | Article no.         | Brief description                              | Properties<br>(Page 129) |   |   |           |
|--------------|---------------------|------------------------------------------------|--------------------------|---|---|-----------|
|              |                     |                                                | F                        | C | R | T         |
| PS307 2A     | 6ES7 307-1BA00-0AA0 | Power supply<br>AC 120 / 230 V; DC 24 V / 2 A  |                          |   |   | 08/<br>10 |
| PS307 2A     | 6ES7 307-1BA01-0AA0 | Power supply<br>AC 120 / 230 V; DC 24 V / 2 A  |                          |   |   |           |
| PS305 2A     | 6ES7 305-1BA80-0AA0 | Power supply<br>AC 24 / 110 V; DC 24 V / 2 A   |                          |   |   |           |
| PS307 5A     | 6ES7 307-1EA00-0AA0 | Power supply<br>AC 120 / 230 V; DC 24 V / 5 A  |                          |   |   | 08/<br>10 |
| PS307 5A     | 6ES7 307-1EA01-0AA0 | Power supply<br>AC 120 / 230 V; DC 24 V / 5 A  |                          |   |   |           |
| PS307 5A     | 6ES7 307-1EA80-0AA0 | Power supply<br>AC 120 / 230 V; DC 24 V / 5 A  |                          |   |   |           |
| PS307 10A    | 6ES7 307-1KA00-0AA0 | Power supply<br>AC 120 / 230 V; DC 24 V / 10 A |                          |   |   | 04/<br>03 |
| PS307 10A    | 6ES7 307-1KA01-0AA0 | Power supply<br>AC 120 / 230 V; DC 24 V / 10 A |                          |   |   | 08/<br>10 |
| PS307 10A    | 6ES7 307-1KA02-0AA0 | Power supply<br>AC 120 / 230 V; DC 24 V / 10 A |                          |   |   |           |

## 18.4 SM DI

| Product name                 | Article no.         | Brief description                                                                               | Properties<br>(Page 129) |   |   |           |
|------------------------------|---------------------|-------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                              |                     |                                                                                                 | F                        | C | R | T         |
| SM321<br>DI 16xDC24V         | 6ES7 321-1BH01-0AA0 | Digital input module<br>16 DI; DC 24 V;<br>grouping 16                                          | W                        | M |   | 10/<br>04 |
| SM321<br>DI 16xDC24V         | 6ES7 321-1BH02-0AA0 | Digital input module<br>16 DI; DC 24 V;<br>grouping 16                                          | W<br>P<br>E              | M | M |           |
| SM321<br>DI 16xDC24V         | 6ES7 321-1BH10-0AA0 | Digital input module<br>16 DI; 24 V DC; grouping 16, high speed, sup-<br>ports isochronous mode | W<br>P                   | M |   |           |
| SM321<br>DI 16xDC24V         | 6ES7 321-1BH50-0AA0 | Digital input module<br>16 DI; DC 24 V; grouping 16, active low                                 | W<br>P                   | M |   |           |
| SM321<br>DI 16xDC24V         | 6ES7 321-1BH81-0AA0 | Digital input module<br>16 DI; DC 24 V;<br>extended environmental conditions                    | W                        | M |   | 10/<br>00 |
| SM321<br>DI 16xDC24V         | 6ES7 321-1BH82-0AA0 | Digital input module<br>16 DI; DC 24 V;<br>extended environmental conditions                    | W                        | M |   | 11/<br>03 |
| SM321<br>DI 32xDC24V         | 6ES7 321-1BL00-0AA0 | Digital input module<br>32 DI; DC 24 V;<br>grouping 32                                          | W<br>P<br>E              | M | M |           |
| SM321<br>DI 32xDC24V         | 6ES7 321-1BL80-0AA0 | Digital input module<br>32 DI; DC 24 V;<br>extended environmental conditions                    | W                        | M |   | 11/<br>03 |
| SM321<br>DI 64xDC24V         | 6ES7 321-1BP00-0AA0 | Digital input module<br>64 DI; DC 24 V;<br>grouping 16, active high or active low               | W<br>P                   | M |   |           |
| SM321<br>DI 16xAC/DC24...48V | 6ES7 321-1CH00-0AA0 | Digital input module<br>16 DI; AC / DC 24 ...48 V;<br>grouping 1                                | W<br>P<br>E<br>SM        | M |   |           |
| SM321<br>DI 16xDC48...120V   | 6ES7 321-1CH20-0AA0 | Digital input module<br>16 DI; DC 48 ...120 V;<br>grouping 8                                    | W<br>P<br>E<br>SM        | M |   |           |
| SM321<br>DI 16xDC48...120V   | 6ES7 321-1CH80-0AA0 | Digital input module<br>16 DI; DC 48 ...120 V;<br>grouping 8, extended environmental conditions | W                        | M |   | 11/<br>03 |
| SM321<br>DI 16xAC120V        | 6ES7 321-1EH01-0AA0 | Digital input module<br>16 DI; AC 120 V;<br>grouping 4                                          | W                        | M |   | 09/<br>01 |
| SM321<br>DI 32xAC120V        | 6ES7 321-1EL00-0AA0 | Digital input module<br>32 DI; AC 120 V;<br>32 Pt 120 V AC input - IEC Type II - 8 Pts/Comm     | W<br>P<br>SM             | M |   |           |

| Product name                                 | Article no.                            | Brief description                                                                                                                                       | Properties<br>(Page 129) |   |   |           |
|----------------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                              |                                        |                                                                                                                                                         | F                        | C | R | T         |
| SM321<br>DI 8xAC230V                         | 6ES7 321-1FF01-0AA0                    | Digital input module<br>8 DI; AC 120 V ... 230 V;<br>grouping 2                                                                                         | W<br>P<br>E<br>SM        | M | M |           |
| SM321<br>DI 8xAC120/230V                     | 6ES7 321-1FF10-0AA0                    | Digital input module<br>8 DI; AC 120 / 230 V; 8 DI; AC Iso.;<br>grouping 1                                                                              | W<br>P<br>SM             | M |   |           |
| SM321<br>DI 8xAC120/230V                     | 6ES7 321-1FF81-0AA0                    | Digital input module<br>8 DI; AC 120 / 230 V;<br>extended environmental conditions                                                                      | W                        | M |   | 11/<br>03 |
| SM321<br>DI 16xAC120V/230V                   | 6ES7 321-1FH00-0AA0                    | Digital input module<br>16 DI; AC 120 / 230 V;<br>grouping 4                                                                                            | W<br>P<br>E<br>SM        | M |   |           |
| SM321<br>DI 16xDC24V,<br>Alarm               | 6ES7 321-7BH00-0AB0                    | Digital input module<br>16 DI; DC 24 V;<br>with hardware and diagnostic interrupt, grouping<br>16                                                       | W                        | O | M |           |
| SM321<br>DI 16xDC24V,<br>Alarm               | 6ES7 321-7BH01-0AB0                    | Digital input module<br>16 DI; DC 24 V;<br>with hardware interrupt and diagnostic interrupt,<br>grouping 16, supports isochronous mode                  | W<br>E                   | O | G |           |
| SM321<br>DI 16xDC24V,<br>Alarm; High Feature | 6ES7 321-7BH01-0AB0<br>ES 6 (revision) | Digital input module<br>16 DI; DC 24 V;<br>with hardware interrupt and diagnostic interrupt,<br>grouping 16, supports isochronous mode; High<br>Feature | W<br>P                   | O | C |           |
| SM321<br>DI 16xDC24V,<br>Alarm               | 6ES7 321-7BH80-0AB0                    | Digital input module<br>16 DI; DC 24 V;<br>with hardware interrupt and diagnostic interrupt,<br>grouping 16, extended environmental conditions          | W                        | O |   | 08/<br>03 |
| SM321<br>DI 16xDC24-125V                     | 6ES7 321-7EH00-0AB0                    | Digital input module<br>16 DI; DC 24-125V;<br>with hardware and diagnostic interrupt, grouping<br>16                                                    | W<br>P<br>SM             | O |   |           |
| SM321<br>DI 4xNAMUR,<br>Ex                   | 6ES7 321-7RD00-0AB0                    | Digital input module<br>4 DI NAMUR;<br>with hardware and diagnostic interrupt, grouping<br>1, [EEx ib]                                                  | W<br>P<br>SM             | O | C |           |
| SM321<br>DI 16xNAMUR                         | 6ES7 321-7TH00-0AB0                    | Digital input module<br>16 DI NAMUR;<br>with diagnostics and value status                                                                               | W<br>P<br>SM             | O | C |           |

## 18.5 SM DO

| Product name                  | Article no.         | Brief description                                                                                             | Properties (Page 129) |   |   |           |
|-------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------|-----------------------|---|---|-----------|
|                               |                     |                                                                                                               | F                     | C | R | T         |
| SM322<br>DO 8xDC24V/2A        | 6ES7 322-1BF01-0AA0 | Digital output module<br>8 DO; DC 24 V / 2 A;<br>grouping 4                                                   | W<br>P<br>E<br>S<br>M | M | C |           |
| SM322<br>DO 16xDC24V/0.5A     | 6ES7 322-1BH01-0AA0 | Digital output module<br>16 DO; DC 24 V / 0.5 A;<br>grouping 8                                                | W<br>P<br>E           | M |   |           |
| SM322<br>DO 16xDC24V/0.5A     | 6ES7 322-1BH10-0AA0 | Digital output module<br>16 DO; DC 24 V / 0.5 A;<br>grouping 8,<br>high speed, supports isochronous mode      | W<br>P                | M |   |           |
| SM322<br>DO 16xDC24V/0.5A     | 6ES7 322-1BH81-0AA0 | Digital output module<br>16 DO; DC 24 V / 0.5 A;<br>extended environmental conditions                         | W                     | M |   | 11/<br>03 |
| SM322<br>DO 32xDC24V/0.5A     | 6ES7 322-1BL00-0AA0 | Digital output module<br>32 DO; DC 24 V / 0.5 A;<br>grouping 8                                                | W<br>P<br>E           | M | M |           |
| SM322<br>DO 64xDC24V/0.3A     | 6ES7 322-1BP00-0AA0 | Digital output module<br>64 DO; DC 24 V / 0.3 A;<br>grouping 16, P-switching                                  | W<br>P                | M |   |           |
| SM322<br>DO 64xDC24V/0.3A     | 6ES7 322-1BP50-0AA0 | Digital output module<br>64 DO; DC 24 V / 0.3 A;<br>grouping 16, M-switching                                  | W<br>P                | M |   |           |
| SM322<br>DO 8xDC48..120V/1.5A | 6ES7 322-1CF00-0AA0 | Digital output module<br>8 DO; DC 48 ...120 V / 1.5 A;<br>grouping 4                                          | W<br>P<br>S<br>M      | M |   |           |
| SM322<br>DO 8xDC48..120V/1.5A | 6ES7 322-1CF80-0AA0 | Digital output module<br>8 DO;<br>DC 48 ...120 V / 1.5 A;<br>grouping 4,<br>extended environmental conditions | W                     | M |   | 11/<br>03 |
| SM322<br>DO 16xAC120V/0.5A    | 6ES7 322-1EH01-0AA0 | Digital output module<br>16 DO; AC 120 V / 0.5 A;<br>grouping 8                                               | W                     | M |   | 01/<br>02 |
| SM322<br>DO 32xAC120V/1A      | 6ES7 322-1EL00-0AA0 | Digital output module<br>32 DO; AC 120 V / 1 A;<br>grouping 8                                                 | W                     | M |   | 10/<br>04 |
| SM322<br>DO 8xAC230V/2A       | 6ES7 322-1FF01-0AA0 | Digital output module<br>8 DO; AC 230 V / 1 A;<br>grouping 4,<br>Si.                                          | W<br>P<br>E<br>S<br>M | M | M |           |
| SM322<br>DO 8xAC120/230V/1A   | 6ES7 322-1FF81-0AA0 | Digital output module<br>8 DO; AC 120 / 230 V / 1 A;<br>extended environmental conditions                     | W                     | M |   | 10/<br>03 |

| Product name                          | Article no.         | Brief description                                                                                                            | Properties<br>(Page 129) |   |   |           |
|---------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                       |                     |                                                                                                                              | F                        | C | R | T         |
| SM322<br>DO 16xAC120V/230V/0.5A       | 6ES7 322-1FH00-0AA0 | Digital output module<br>16 DO; AC 120 / 230 V / 0.5 A;<br>grouping 8                                                        | W<br>P<br>E<br>SM        | M |   |           |
| SM322<br>DO 32xAC120V/230V/1A         | 6ES7 322-1FL00-0AA0 | Digital output module<br>32 DO; AC 120 / 230 V / 1 A;<br>grouping 8                                                          | W<br>P<br>SM             | M |   |           |
| SM322<br>DO 8xRel. AC230V             | 6ES7 322-1HF01-0AA0 | Digital output module<br>8 DO relays;<br>DC 24 V / 2 A, AC 230 V / 2 A;<br>grouping 2                                        | W<br>P<br>E<br>SM        | M |   |           |
| SM322<br>DO 8xRel. AC 230V/5A         | 6ES7 322-1HF10-0AA0 | Digital output module<br>8 DO relays; AC 230 V / 8 A;<br>grouping 1                                                          | W<br>P<br>E<br>SM        | M |   |           |
| SM322<br>DO 8xRel. AC 24V/5A          | 6ES7 322-1HF20-0AA0 | Digital output module<br>8 DO relay;<br>DC 24 V / 5 A, AC 230 V / 5 A;<br>grouping 1,<br>with overvoltage protective element | W                        | M |   | 07/<br>02 |
| SM322<br>DO 8xRel.<br>DC24V/AC230V/5A | 6ES7 322-1HF80-0AA0 | Digital output module<br>8 DO relays; AC 230 V / 5 A;<br>grouping 1,<br>extended environmental conditions                    | W                        | M |   | 11/<br>03 |
| SM322<br>DO 16xRel. AC120V            | 6ES7 322-1HH00-0AA0 | Digital output module<br>16 DO relays;<br>DC 24 V / 2 A, AC 120 V / 2 A;<br>grouping 16                                      | W                        | M |   | 07/<br>02 |
| SM322<br>DO 16xRel. AC120V/230V       | 6ES7 322-1HH01-0AA0 | Digital output module<br>16 DO relays;<br>DC 24 V / 2 A, AC 120 V / 2 A; 230 V / 2 A;<br>grouping 16                         | W<br>P<br>E<br>SM        | M |   |           |
| SM322<br>DO 8xAC120/230V/2A           | 6ES7 322-5FF00-0AB0 | Digital output module<br>8 DO; AC 120 / 230 V / 2 A,<br>with substitute value switching                                      | W<br>P<br>SM             | O |   |           |
| SM322<br>DO 16xUC24/48V               | 6ES7 322-5GH00-0AB0 | Digital output module<br>16 DO; UC 24 / 48 V; diagnostic interrupt,<br>grouping 1,                                           | W<br>P<br>SM             | M |   |           |
| SM322<br>DO 8xRel AC230V              | 6ES7 322-5HF00-0AB0 | Digital output module<br>8 DO; AC 230 V / 5 A                                                                                | W<br>P<br>SM             | O |   |           |
| SM322<br>DO 4xDC15V/20mA, Ex          | 6ES7 322-5RD00-0AB0 | Digital output module<br>4 DO; DC 15 V / 20 mA; diagnostic interrupt,<br>grouping 1, [EEx ib]                                | W<br>P<br>SM             | O |   |           |
| SM322<br>DO 4xDC24V/10mA, Ex          | 6ES7 322-5SD00-0AB0 | Digital output module<br>4 DO; DC 24 V / 10 mA; diagnostic interrupt,<br>grouping 1, [EEx ib]                                | W<br>P<br>SM             | O | C |           |



| Product name              | Article no.         | Brief description                                                                                      | Properties<br>(Page 129) |   |   |           |
|---------------------------|---------------------|--------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                           |                     |                                                                                                        | F                        | C | R | T         |
| SM322<br>DO 8xDC24V/0,5A  | 6ES7 322-8BF00-0AB0 | Digital output module<br>8 DO; DC 24 V / 0.5 mA; diagnostic interrupt,<br>grouping 8                   | W<br>P<br>SM             | O | M |           |
| SM322<br>DO 8xDC24V/0,5A  | 6ES7 322-8BF80-0AB0 | Digital output module<br>8 DO; DC 24 V / 0.5 A; with diagnostics,<br>extended environmental conditions | W                        | O |   | 11/<br>03 |
| SM322<br>DO 16xDC24V/0,5A | 6ES7 322-8BH00-0AB0 | Digital output module<br>16 DO; DC 24 V / 0.5 A; with diagnostics                                      | W                        | O | M | 12/<br>03 |
| SM322<br>DO 16xDC24V/0,5A | 6ES7 322-8BH01-0AB0 | Digital output module<br>16 DO; DC 24 V / 0.5 A; with diagnostics                                      | W                        | O | M | 10/<br>16 |
| SM322<br>DO 16xDC24V/0,5A | 6ES7 322-8BH10-0AB0 | Digital output module<br>16 DO; DC 24 V / 0.5 A; with diagnostics                                      | W<br>P                   | O | M |           |

## 18.6 SM DI/DO

| Product name                    | Article no.         | Brief description                                                       | Properties<br>(Page 129) |   |   |           |
|---------------------------------|---------------------|-------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                 |                     |                                                                         | F                        | C | R | T         |
| SM323<br>DI 8/DO 8 x DC24V/0.5A | 6ES7 323-1BH01-0AA0 | Digital input/output module<br>8 DI / 8 DO; DC 24 V / 0,5 A             | W<br>P<br>E<br>SM        | M |   |           |
| SM323<br>DI 8/DO 8 x DC24V/0.5A | 6ES7 323-1BH81-0AA0 | Digital input/output module;<br>8 DI / 8 DO; DC 24 V / 0.5 A; (Outdoor) | W                        | M |   | 11/<br>03 |

## 18.7 SM DI-F

| Product name          | Article no.         | Brief description                                                                    | Properties<br>(Page 129) |    |   |           |
|-----------------------|---------------------|--------------------------------------------------------------------------------------|--------------------------|----|---|-----------|
|                       |                     |                                                                                      | F                        | C  | R | T         |
| SM 326<br>DI 24x24VDC | 6ES7 326-1BK00-0AB0 | Digital input module<br>24 DI; DC 24 V;<br>safety-related                            | W                        | OS | C | 04/<br>06 |
| SM 326<br>DI 24xDC24V | 6ES7 326-1BK01-0AB0 | Digital input module<br>24 DI; DC 24 V;<br>safety-related, with diagnostic interrupt | W                        | OS | C | 09/<br>09 |
| SM 326<br>DI 24xDC24V | 6ES7 326-1BK02-0AB0 | Digital input module<br>24 DI; DC 24 V;<br>safety-related, with diagnostic interrupt | W<br>P                   | OS | C |           |

| Product name                | Article no.         | Brief description                                            | Properties<br>(Page 129) |    |   |           |
|-----------------------------|---------------------|--------------------------------------------------------------|--------------------------|----|---|-----------|
|                             |                     |                                                              | F                        | C  | R | T         |
| SM 326<br>DI 8xNAMUR, Ex(i) | 6ES7 326-1RF00-0AB0 | Digital input module<br>8 DI NAMUR;<br>Ex(i), safety-related | W                        | OS | C | 05/<br>14 |
| SM 326<br>DI 8xNAMUR, Ex(i) | 6ES7 326-1RF01-0AB0 | Digital input module<br>8 DI NAMUR;<br>Ex(i), safety-related | W                        | OS | C |           |

## 18.8 SM DO-F

| Product name             | Article no.         | Brief description                                                                                                                                             | Properties<br>(Page 129) |    |                 |           |
|--------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----|-----------------|-----------|
|                          |                     |                                                                                                                                                               | F                        | C  | R               | T         |
| SM 326<br>DO 10x24VDC/2A | 6ES7 326-2BF00-0AB0 | Digital output module,<br>10 DO; DC 24 V / 2 A;<br>safety-related,                                                                                            | W                        | OS | C               | 04/<br>03 |
| SM326<br>DO 10xDC24V/2A  | 6ES7 326-2BF01-0AB0 | Digital output module,<br>10 DO; DC 24 V / 2 A;<br>safety-related, P-switching,<br>with diagnostic interrupt                                                  | W                        | OS | C <sup>1)</sup> | 10/<br>14 |
| SM326<br>DO 10xDC24V/2A  | 6ES7 326-2BF10-0AB0 | Digital output module,<br>10 DO; DC 24 V / 2 A;<br>safety-related, P-switching,<br>with diagnostic interrupt<br>PROFIBUS DP and PROFINET with PROFIsafe<br>V2 | W<br>P                   | M  | C               |           |
| SM 326F<br>DO 8xDC24V/2A | 6ES7 326-2BF40-0AB0 | Digital output module<br>8 DO; DC 24 V / 2 A;<br>safety-related, P-M-switching,<br>with diagnostic interrupt                                                  | W                        | M  |                 | 09/<br>09 |
| SM 326F<br>DO 8xDC24V/2A | 6ES7 326-2BF41-0AB0 | Digital output module<br>8 DO; DC 24 V / 2 A;<br>safety-related, P-M-switching,<br>with diagnostic interrupt                                                  | W<br>P                   | M  |                 |           |

<sup>1)</sup> = Firmware 2.0.9 or later / previous version only by module

## 18.9 SM AI

| Product name        | Article no.         | Brief description                                                                                                                                                           | Properties<br>(Page 129) |   |   |           |
|---------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                     |                     |                                                                                                                                                                             | F                        | C | R | T         |
| SM331<br>AI 8x13Bit | 6ES7 331-1KF00-0AB0 | Analog input module<br>8 AI; 13 Bit                                                                                                                                         | W                        | O |   | 10/<br>03 |
| SM331<br>AI 8x13Bit | 6ES7 331-1KF01-0AB0 | Analog input module<br>8 AI; 13 Bit                                                                                                                                         | W                        | O |   | 01/<br>10 |
| SM331<br>AI 8x13Bit | 6ES7 331-1KF02-0AB0 | Analog input module<br>8 AI; 13 Bit                                                                                                                                         | W<br>P                   | O |   |           |
| SM331<br>AI 8x14Bit | 6ES7 331-7HF01-0AB0 | Analog input module<br>8 AI; 14 Bit;<br>high speed, supports isochronous mode                                                                                               | W<br>P                   | O |   |           |
| SM331<br>AI 2x12Bit | 6ES7 331-7KB01-0AB0 | Analog input module<br>2 AI; 12 ... 14 Bit                                                                                                                                  | W                        | O |   | 10/<br>04 |
| SM331<br>AI 2x12Bit | 6ES7 331-7KB02-0AB0 | Analog input module<br>2 AI; 12 ... 14 Bit                                                                                                                                  | W<br>P<br>SM             | O |   |           |
| SM331<br>AI 2x12Bit | 6ES7 331-7KB81-0AB0 | Analog input module<br>2 AI; 12 ... 14 Bit;<br>extended environmental conditions                                                                                            | W                        | O |   | 05/<br>01 |
| SM331<br>AI 2x12Bit | 6ES7 331-7KB82-0AB0 | Analog input module<br>2 AI; 12 ... 14 Bit; (Outdoor)                                                                                                                       | W                        | O |   | 11/<br>03 |
| SM331<br>AI 8x12Bit | 6ES7 331-7KF01-0AB0 | Analog input module<br>8 AI; 12 ... 14 Bit                                                                                                                                  | W                        | O |   | 02/<br>05 |
| SM331<br>AI 8x12Bit | 6ES7 331-7KF02-0AB0 | Analog input module<br>8 AI; 12 ... 14 Bit                                                                                                                                  | W<br>P<br>E<br>SM        | O | M |           |
| SM331<br>AI 8x16Bit | 6ES7 331-7NF00-0AB0 | Analog input module<br>8 AI; 16 Bit;<br>1 ... 5 V, +/- 5 V, +/- 10 V;<br>0 ... 20 mA, 4 ... 20 mA, +/- 20 mA                                                                | W<br>P<br>E              | O | C |           |
| SM331<br>AI 8x16Bit | 6ES7 331-7NF10-0AB0 | Analog input module<br>8 AI; 16 Bit;<br>1 ... 5 V, +/- 5 V, +/- 10 V;<br>0 ... 20 mA, 4 ... 20 mA, +/- 20 mA                                                                | W<br>P<br>E<br>SM        | O | C |           |
| SM331<br>AI 6xTC    | 6ES7 331-7PE10-0AB0 | Analog input module<br>6 AI TC; 16 Bit; iso.<br>can be used for redundancy by channel                                                                                       | W<br>P<br>SM             | O | C |           |
| SM331<br>AI 8xRTD   | 6ES7 331-7PF00-0AB0 | Analog input module<br>8 AI RTD;<br>16 Bit (internally 24 Bit according to the Sigma-Delta procedure); RTD: Pt 100, Pt 200, Pt 500, Pt 1000, Ni 100, Ni 120, Ni 1000, Cu 10 | W                        | O |   | 04/<br>05 |

| Product name                         | Article no.                       | Brief description                                                                                                                                                              | Properties<br>(Page 129) |   |   |           |
|--------------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                      |                                   |                                                                                                                                                                                | F                        | C | R | T         |
| SM331<br>AI 8xRTD                    | 6ES7 331-7PF01-0AB0               | Analog input module<br>8 AI RTD;<br>16 Bit (internally 24 Bit according to the Sigma-Delta procedure); RTD: Pt 100, Pt 200, Pt 500, Pt 1000,<br>Ni 100, Ni 120, Ni 1000, Cu 10 | W<br>P<br>E              | O |   |           |
| SM331<br>AI 8xTC                     | 6ES7 331-7PF10-0AB0               | Analog input module<br>8 AI TC;<br>16 Bit (internally 24 Bit according to the Sigma-Delta procedure);<br>Thermocouples: B, E, J, K, L, N, R, S, T                              | W                        | O |   | 07/<br>05 |
| SM331<br>AI 8xTC                     | 6ES7 331-7PF11-0AB0               | Analog input module<br>8 AI TC;<br>16 Bit (internally 24 Bit according to the Sigma-Delta procedure);<br>Thermocouples: B, E, J, K, L, N, R, S, T                              | W<br>P<br>E              | O |   |           |
| SM331<br>AI 4x0/4...20mA, Ex         | 6ES7 331-7RD00-0AB0               | Analog input module<br>4 AI; 0/4 ... 20 mA;<br>15 Bit, [EEx ib]                                                                                                                | W<br>P<br>SM             | O | C |           |
| SM331<br>AI 8xTC/4xRTD, Ex           | 6ES7 331-7SF00-0AB0               | Analog input module<br>8 AI TC, 4 AI RTD;<br>15 Bit, [EEx ib]                                                                                                                  | W<br>P<br>SM             | O |   |           |
| SM331<br>AI 2x0/4...20mA<br>HART, Ex | 6ES7 331-7TB00-0AB0               | Analog input module<br>2 AI; 0/4 ... 20 mA,<br>with HART communication, [EEx ib]                                                                                               | W<br>P<br>SM             | O |   | 10/<br>16 |
| SM331<br>AI 2x0/4...20mA<br>HART, Ex | 6ES7 331-7TB10-0AB0               | Analog input module<br>2 AI; 0/4...20mA;<br>with HART communication, [EEx ib]                                                                                                  | W<br>P<br>SM             | O |   |           |
| SM331<br>AI 8x0/4...20mA<br>HART     | 6ES7 331-7TF00-0AB0               | Analog input module<br>8 AI; 0/4 ... 20 mA,+/-20 mA<br>with HART communication,                                                                                                | W                        | O |   | 10/<br>07 |
| SM331<br>AI 8x0/4...20mA<br>HART     | 6ES7 331-7TF01-0AB0<br>to V2.x    | Analog input module<br>8 AI; 0/4 ... 20 mA,+/-20 mA<br>with HART communication,                                                                                                | W                        | O | C |           |
| SM331<br>AI 8x0/4...20mA<br>HART     | 6ES7 331-7TF01-0AB0<br>as of V3.x | Analog input module<br>8 AI; 0/4 ... 20 mA,+/-20 mA<br>with HART communication,                                                                                                | W<br>P<br>SM             | O | C |           |

## 18.10 SM AO

| Product name                          | Article no.                       | Brief description                                                                 | Properties<br>(Page 129) |   |   |           |
|---------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                       |                                   |                                                                                   | F                        | C | R | T         |
| SM332<br>AO 2x12Bit                   | 6ES7 332-5HB01-0AB0               | Analog output module<br>2 AO; 12 Bit                                              | W<br>P<br>SM             | O |   |           |
| SM332<br>AO 2x12Bit                   | 6ES7 332-5HB81-0AB0               | Analog output module<br>2 AO; 12 ... 14 Bit,<br>extended environmental conditions | W                        | O |   | 11/<br>03 |
| SM332<br>AO 4x12Bit                   | 6ES7 332-5HD01-0AB0               | Analog output module<br>4 AO; 11 ... 12 Bit                                       | W<br>P<br>E<br>SM        | O | C |           |
| SM332<br>AO 8x12Bit                   | 6ES7 332-5HF00-0AB0               | Analog output module<br>8 AO; 12 Bit                                              | W<br>P<br>E              | O | C |           |
| SM332<br>AO 4x0/4...20mA,<br>Ex       | 6ES7 332-5RD00-0AB0               | Analog output module<br>4 AO; 0/4 ... 20 mA;<br>15Bit, [EEx ib]                   | W<br>P<br>SM             | O | C |           |
| SM332<br>AO 2x0/4...20mA,<br>HART, Ex | 6ES7 332-5TB00-0AB0               | Analog output module<br>2 AO; 0/4 ... 20 mA;<br>with HART communication, [EEx ib] | W<br>P<br>SM             | O |   | 10/<br>16 |
| SM332<br>AO 2x0/4...20mA,<br>HART; Ex | 6ES7 332-5TB10-0AB0               | Analog output module<br>2 AO; 0/4...20mA;<br>with HART communication, [EEX ib]    | W<br>P<br>SM             | O |   |           |
| SM332<br>AO 4x16Bit                   | 6ES7 332-7ND00-0AB0               | Analog output module<br>4 AO; 16 Bit                                              | W                        | O |   | 10/<br>04 |
| SM332<br>AO 4x16Bit                   | 6ES7 332-7ND01-0AB0               | Analog output module<br>4 AO; 16 Bit;<br>supports isochronous mode                | W                        | O |   | 01/<br>05 |
| SM332<br>AO 4x16Bit                   | 6ES7 332-7ND02-0AB0               | Analog output module<br>4 AO; 16 Bit;<br>supports isochronous mode                | W<br>P<br>E<br>SM        | O |   |           |
| SM332<br>AO 8x0/4...20mA<br>HART      | 6ES7 332-8TF00-0AB0               | Analog output module<br>8 AO; 16 Bit, 0/4 ... 20 mA;<br>with HART communication   | W                        | O |   | 11/<br>07 |
| SM332<br>AO 8x0/4...20mA<br>HART      | 6ES7 332-8TF01-0AB0<br>to V2.x    | Analog output module<br>8 AO; 16 Bit, 0/4 ... 20 mA;<br>with HART communication   | W                        | O | C |           |
| SM332<br>AO 8x0/4...20mA<br>HART      | 6ES7 332-8TF01-0AB0<br>as of V3.x | Analog output module<br>8 AO; 16 Bit, 0/4 ... 20 mA;<br>with HART communication   | W<br>P<br>SM             | O | C |           |

## 18.11 SM AI-F

| Product name        | Article no.         | Brief description                                                                                                                                                    | Properties<br>(Page 129) |    |   |           |
|---------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----|---|-----------|
|                     |                     |                                                                                                                                                                      | F                        | C  | R | T         |
| SM336<br>AI 6x13Bit | 6ES7 336-1HE00-0AB0 | Analog input module<br>6 AI; 13 Bit; with diagnostics, safety-related to SIL-3,                                                                                      | W                        | OS | C | 10/<br>08 |
| SM336<br>AI 6 HART  | 6ES7 336-4GE00-0AB0 | Analog input module<br>6 AI; 0/4 ... 20 mA;<br>HART, PROFIsafe V2, safety-related,<br>with diagnostic interrupt, with HART communica-<br>tion, FW update, redundancy | W<br>P                   | M  | C |           |

## 18.12 SM MTA

| Product name                          | Article no.         | Brief description                                                                                                                                                  | Properties<br>(Page 129) |   |   |           |
|---------------------------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                       |                     |                                                                                                                                                                    | F                        | C | R | T         |
| MTA 16 channels DI<br>standard        | 6ES7 650-1AC10-3XX0 | MTA for 16 DI; DC 24 V;<br>for 6ES7 321-7BH01-0AB0 (product version 2 and<br>higher)                                                                               |                          |   |   | 02/<br>08 |
| MTA 16 channels DI<br>standard        | 6ES7 650-1AC11-3XX0 | MTA for 16 DI; DC 24 V;<br>for 6ES7 321-7BH01-0AB0 (product version 2 and<br>higher)                                                                               |                          |   |   |           |
| MTA 8 channels AI<br>standard         | 6ES7 650-1AA50-2XX0 | MTA for 8 AI; 1 ... 5 V / 0/4 ... 20 mA;<br>for 6ES7 331-7NF00-0AB0 (product version 5 and<br>higher)                                                              |                          |   |   | 02/<br>08 |
| MTA 8 channels AI<br>standard         | 6ES7 650-1AA51-2XX0 | MTA for 8 AI; 1 ... 5 V / 0/4 ... 20 mA;<br>for 6ES7 331-7NF00-0AB0 (product version 5 and<br>higher)                                                              |                          |   |   | 02/<br>13 |
| MTA 8 channels AI<br>standard         | 6ES 7650-1AA52-2XX0 | MTA for 8 AI; 1 ... 5 V / 0/4 ... 20 mA;<br>for 6ES7 331-7NF00-0AB0 (product version 5 and<br>higher)<br>and 6ES7 331-7NF10-0AB0 (product version 8 and<br>higher) |                          |   |   |           |
| MTA 8 channels<br>AI-HART<br>standard | 6ES7 650-1AA61-2XX0 | MTA for 8 AI; 4 ... 20 mA;<br>for 6ES7 331-7TF01-0AB0                                                                                                              |                          |   |   |           |
| MTA 8 channels AO<br>standard         | 6ES7 650-1AB50-2XX0 | MTA for 8 AO; 4 ... 20 mA;<br>for 6ES7 332-5HF00-0AB0 (product version 3 and<br>higher)                                                                            |                          |   |   | 02/<br>08 |
| MTA 8 channels AO<br>standard         | 6ES7 650-1AB51-2XX0 | MTA for 8 AO; 4 ... 20 mA;<br>for 6ES7 332-5HF00-0AB0 (product version 3 and<br>higher)                                                                            |                          |   |   |           |
| MTA 8 channels<br>AO-HART<br>standard | 6ES7 650-1AB61-2XX0 | MTA for 8 AO; 0/4 ... 20 mA;<br>for 6ES7 332-8TF01-0AB0                                                                                                            |                          |   |   |           |

| Product name                            | Article no.         | Brief description                                                                                                       | Properties<br>(Page 129) |   |   |       |
|-----------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-------|
|                                         |                     |                                                                                                                         | F                        | C | R | T     |
| MTA 8 channels TC standard              | 6ES7 650-1AF50-2XX0 | MTA for 8 TC;<br>for 6ES7 331-7PF10-0AB0 (product version 4 and higher)<br>and 6ES7 331-7PF11-0AB0                      |                          |   |   | 02/08 |
| MTA 8 channels TC standard              | 6ES7 650-1AF51-2XX0 | MTA for 8 TC;<br>for 6ES7 331-7PF10-0AB0 (product version 4 and higher)<br>and 6ES7 331-7PF11-0AB0                      |                          |   |   |       |
| MTA 8 channels RTD standard             | 6ES7 650-1AG50-2XX0 | MTA for 8 RTD;<br>for 6ES7 331-7PF00-0AB0 (product version 8 and higher)<br>and 6ES7 331-7PF01-0AB0                     |                          |   |   | 02/08 |
| MTA 8 channels RTD standard             | 6ES7 650-1AG51-2XX0 | MTA for 8 RTD;<br>for 6ES7 331-7PF00-0AB0 (product version 8 and higher)<br>and 6ES7 331-7PF01-0AB0                     |                          |   |   |       |
| MTA 24 channels F-DI (fail-safe)        | 6ES7 650-1AK10-7XX0 | MTA for 24 F- DI; DC 24 V;<br>for 6ES7 326-1BK00-0AB0<br>and 6ES7 326-1BK01-0AB0 (product version 1 and higher)         |                          |   |   | 02/08 |
| MTA 24 channels F-DI (fail-safe)        | 6ES7 650-1AK11-7XX0 | MTA for 24 F- DI; DC 24 V;<br>for 6ES7 326-1BK00-0AB0<br>and 6ES7 326-1BK01-0AB0 (product version 1 and higher)         |                          |   |   |       |
| MTA 16 channels DO standard             | 6ES7 650-1AD10-2XX0 | MTA for 16 DO; DC 24 V / 0.5 A; for<br>6ES7322-8BH01-0AB0                                                               |                          |   |   | 10/17 |
| MTA 10 channels F-DO (fail-safe)        | 6ES7 650-1AL10-6XX0 | MTA for 10 F-DO; DC 24 V / 2 A;<br>for 6ES7 326-2BF01-0AB0 (product version 2 and higher)                               |                          |   |   | 02/08 |
| MTA 10 channels F-DO (fail-safe)        | 6ES7 650-1AL11-6XX0 | MTA for 10 F-DO; DC 24 V / 2 A;<br>for 6ES7 326-2BF01-0AB0 (product version 2 and higher)                               |                          |   |   |       |
| MTA 16 channels DO (relay)              | 6ES7 650-1AM30-3XX0 | MTA for 16 DO relays;<br>AC 120-230 V / 5 A; DC 24 V / 5 A;<br>for 6ES7 322-8BH01-0AB0 (product version 1 and higher)   |                          |   |   |       |
| MTA 10 channels DO (relay)              | 6ES7 650-1AM30-6XX0 | MTA for 10 DO relays;<br>AC 110-220 V / 5 A; DC 24 V / 5 A;<br>for 6ES7 326-2BF01-0AB0 (product version 2 and higher)   |                          |   |   | 11/07 |
| MTA 10 channels F-DO (fail-safe, relay) | 6ES7 650-1AM31-6XX0 | MTA for 10 F-DO relays;<br>AC 120-230 V / 5 A; DC 24 V / 5 A;<br>for 6ES7 326-2BF01-0AB0 (product version 2 and higher) |                          |   |   |       |
| MTA 6 channels F-AI (fail-safe)         | 6ES7 650-1AH50-5XX0 | MTA for 6 F-AI; 4 ... 20 mA;<br>for 6ES7336-1HE00-0AB0 (product version 6 and higher)                                   |                          |   |   | 02/08 |

| Product name                       | Article no.         | Brief description                                                                                                    | Properties<br>(Page 129) |   |   |           |
|------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                    |                     |                                                                                                                      | F                        | C | R | T         |
| MTA 6 channels F-AI<br>(fail-safe) | 6ES7 650-1AH51-5XX0 | MTA for 6 F-AI; 4 ... 20 mA;<br>for 6ES7336-1HE00-0AB0 (product version 6 and<br>higher)                             |                          |   |   | 02/<br>08 |
| MTA 6 channels F-AI<br>(fail-safe) | 6ES7 650-1AH61-5XX0 | MTA for 6 F-AI; 4 ... 20 mA;<br>for 6ES7 336-1HE00-0AB0 (product version 6 and<br>higher)<br>for 6ES7 336-4GE00-0AB0 |                          |   |   | 02/<br>13 |
| MTA 6 channels F-AI<br>(fail-safe) | 6ES7 650-1AH62-5XX0 | MTA for 6 F-AI; 4 ... 20 mA;<br>for 6ES7 336-4GE00-0AB0                                                              |                          |   |   |           |
| Redundant power<br>monitor         | 6ES7 650-1BA01-0XX0 | Monitoring module for redundant power supply                                                                         |                          |   |   | 05/<br>08 |
| Redundant power<br>monitor         | 6ES7 650-1BA02-0XX0 | Monitoring module for redundant power supply                                                                         |                          |   |   |           |
| 5.6 V Zener diode<br>board         | 6ES7 650-1BB51-0XX0 | 5.6 V Zener diode<br>daughter board for F-AI MTA                                                                     |                          |   |   | 10/<br>16 |
| 6.2 V Zener diode<br>board         | 6ES7 650-1BC51-0XX0 | 6.2 V Zener diode<br>daughter board for F-AI MTA                                                                     |                          |   |   | 10/<br>16 |
| FET switch adapter                 | 6ES7 650-1BD51-0XX0 | FET switch adapter                                                                                                   |                          |   |   | 01/<br>11 |



## 19.1 CPU as of 05/17 (as of PCS 7 V9.0)

| Product name                     | Article no.              | Brief description                                                                                                                                                                                                                                                                                                                                 | Properties |   |   |   |
|----------------------------------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---|---|---|
|                                  |                          |                                                                                                                                                                                                                                                                                                                                                   | F          | C | R | T |
| CPU 410-5H Process automation    | 6ES7 410-5HX08-0AB0 V8.2 | S7 CPU; fault-tolerant and fail-safe capability; controller for all sectors of the process industry, 48 MB integrated load memory, work memory 16 MB code and 16 MB data; PROFINET IO controller, 2 PROFINET interfaces and 2 ports each; average processing time of the PCS 7 typicals 110 µs; 2x PN, 1x DP, 2x for sync-modules and 1x service; | W<br>P     | X |   |   |
| CPU 410 SMART process automation | 6ES7 410-5HN08-0AB0 V8.2 | S7 CPU; fault-tolerant; controller for all sectors of the process industry, 48 MB integrated load memory, work memory 4 MB code and 4 MB data; PROFINET IO controller, 2 PROFINET interfaces and 2 ports each; average processing time of the PCS 7 typicals 110 µs; 2x PN, 1x DP, 2x for sync-modules and 1x service;                            | W<br>P     | X |   |   |
| CPU 410E Process automation      | 6ES7 410-5HM08-0AB0 V8.2 | S7 CPU; fault-tolerant and fail-safe capability; controller for all sectors of the process industry, up to 200 PO or 1-4 MB work memory; PROFINET IO controller, 2 PROFINET interfaces and 2 ports each; average processing time of the PCS 7 typicals 110 µs; 2x PN, 1x DP, 2x for sync-modules and 1x service;                                  | W<br>P     | X |   |   |

## 19.2 CPU as of 02/16 (as of PCS 7 V8.2)

| Product name    | Article no.<br>Firmware version | Brief description                                                                                                                                                                                                                      | Properties<br>(Page 129) |   |   |   |
|-----------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                 |                                 |                                                                                                                                                                                                                                        | F                        | C | R | T |
| CPU 414-3 PN/DP | 6ES7 414-3EM07-0AB0<br>V7.0     | S7 CPU;<br>RAM 2 MB code and 2 MB data;<br>18.75 $\mu$ s/kAW;<br>8KB DI/O; 64 connections;<br>1*DP/MPI, 1*PN and 1 slot for IF modules;<br>routing; data record routing;<br>PROFINET IO controller;<br>PROFINET interface and 2 ports; | W<br>P                   | X |   |   |
| CPU 416-3 PN/DP | 6ES7 416-3ES07-0AB0<br>V7.0     | S7 CPU;<br>RAM 8 MB code and 8 MB data;<br>12.5 $\mu$ s/kAW;<br>16KB DI/O; 96 connections;<br>1*DP/MPI, 1*PN and 1 slot for IF modules;<br>routing; data record routing;<br>PROFINET IO controller;<br>PROFINET interface and 2 ports; | W<br>P                   | X |   |   |
| CPU 417-4       | 6ES7 417-4XT07-0AB0<br>V7.0     | S7 CPU;<br>Ram 16 MB code and 16 MB data;<br>7.5 $\mu$ s/kAW;<br>16 KB DI/O; 120 connections;<br>1*DP/MPI, 1*DP and 2 slots for IF modules;<br>Routing; data record routing;                                                           | W                        | X |   |   |

### 19.3 CPU as of 09/14 (as of PCS 7 V8.1)

| Product name                     | Article no.<br>Firmware version | Brief description                                                                                                                                                                                                                                                                                                                                                                                      | Properties<br>(Page 129) |   |   |   |
|----------------------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                                  |                                 |                                                                                                                                                                                                                                                                                                                                                                                                        | F                        | C | R | T |
| CPU 410-5H process automation    | 6ES7 410-5HX08-0AB0<br>V8.1.x   | S7 CPU;<br>fault-tolerant and fail-safe capability; controller for all sectors of the process industry,<br>48 MB integrated load memory,<br>work memory 16 MB code and 16 MB data;<br>PROFINET IO controller,<br>2 PROFINET interfaces and 2 ports each;<br>average processing time of the PCS 7 typicals 110 µs;<br>16 KB DI/O; 120 connections;<br>2x PN, 1x DP, 2x for sync-modules and 1x service; | W<br>P                   | X |   |   |
| CPU 410 SMART process automation | 6ES7 410-5HN08-0AB0<br>V8.1.x   | S7 CPU;<br>fault-tolerant; controller for all sectors of the process industry,<br>48 MB integrated load memory,<br>work memory 4 MB code and 4 MB data;<br>PROFINET IO controller,<br>2 PROFINET interfaces and 2 ports each;<br>average processing time of the PCS 7 typicals 110 µs;<br>16 KB DI/O; 120 connections;<br>2x PN, 1x DP, 2x for sync-modules and 1x service;                            | W<br>P                   | X |   |   |

### 19.4 CPU as of 06/13 (as of PCS 7 V8.0.2)

| Product name                  | Article no.<br>Firmware version | Brief description                                                                                                                                                                                                                                                                                                                                                                          | Properties<br>(Page 129) |   |   |   |
|-------------------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                               |                                 |                                                                                                                                                                                                                                                                                                                                                                                            | F                        | C | R | T |
| CPU 410-5H process automation | 6ES7 410-5HX08-0AB0<br>V8.0.x   | S7 CPU;<br>fault-tolerant and fail-safe capability; controller for all sectors of the process industry,<br>48 MB integrated load memory,<br>work memory 16 MB code and 16 MB data;<br>PROFINET IO controller,<br>PROFINET interface and 2 ports;<br>Average processing time of the PCS 7 typicals 110 µs;<br>16 KB DI/O; 120 connections;<br>1 PN, 1 DP, 2 for sync-modules and 1 service; | W<br>P                   | X |   |   |

## 19.5 H-CPU as of 12/11 (as of PCS 7 V8.0)

| Product name     | Article no.<br>Firmware version | Brief description                                                                                                                                                                                                           | Properties<br>(Page 129) |   |   |   |
|------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                  |                                 |                                                                                                                                                                                                                             | F                        | C | R | T |
| CPU 412-5H PN/DP | 6ES7 412-5HK06-0AB0<br>V6.x     | S7 CPU;<br>fault-tolerant and fail-safe capability; work memory<br>0.5 MB code and 0.5 MB data;<br>0.031 ms/1000 instructions;<br>8 KB DI/O; 48 connections;<br>1 DP / MPI, 1 DP, 1 PN and 2 slots for H-sync mod-<br>ules; | W<br>P                   | X |   |   |
| CPU 414-5H PN/DP | 6ES7 414-5HM06-0AB0<br>V6.x     | S7 CPU;<br>fault-tolerant and fail-safe capability; work memory<br>2 MB code and 2 MB data;<br>0.019 ms/1000 instructions;<br>8 KB DI/O; 64 connections;<br>1 DP / MPI, 1 DP, 1 PN and 2 slots for H-sync mod-<br>ules;     | W<br>P                   | X |   |   |
| CPU 416-5H PN/DP | 6ES7 416-5HS06-0AB0<br>V6.x     | S7 CPU;<br>fault-tolerant and fail-safe capability; work memory<br>6 MB code and 10 MB data;<br>0.012 ms/1000 instructions;<br>16 KB DI/O; 96 connections;<br>1 DP / MPI, 1 DP, 1 PN and 2 slots for H-sync mod-<br>ules;   | W<br>P                   | X |   |   |
| CPU 417-5H PN/DP | 6ES7 417-5HT06-0AB0<br>V6.x     | S7 CPU;<br>fault-tolerant and fail-safe capability; work memory<br>16 MB code and 16 MB data;<br>0.0075 ms/1000 instructions;<br>16 KB DI/O; 120 connections;<br>1 DP / MPI, 1 DP, 1PN and 2 slots for H-sync mod-<br>ules; | W<br>P                   | X |   |   |

## 19.6 CPU as of 08/10 (as of PCS 7 V7.1.2)

| Product name    | Article no.<br>Firmware version | Brief description                                                                                                                                                                                                                                                                                                   | Properties<br>(Page 129) |   |   |           |
|-----------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                 |                                 |                                                                                                                                                                                                                                                                                                                     | F                        | C | R | T         |
| CPU 414-3 PN/DP | 6ES7 414-3EM06-0AB0<br>V6.x     | S7 CPU;<br>work memory 2.0 MB code and 2.0 MB data; 0.045 ms/1000 instructions;<br>8KB DI/O; 64 connections;<br>1*DP/MPI, 1*PN and 1 slot for IF-modules;<br>send and receive capability for direct data exchange;<br>constant bus cycle time and isochronous processing; routing; integrated data record gateway;  | W<br>P                   | X |   | 10/<br>16 |
| CPU 416-3 PN/DP | 6ES7 416-3ES06-0AB0<br>V6.x     | S7 CPU;<br>work memory 8.0 MB code and 8.0 MB data; 0.030 ms/1000 instructions;<br>16KB DI/O; 96 connections;<br>1*DP/MPI, 1*PN and 1 slot for IF-modules;<br>send and receive capability for direct data exchange;<br>constant bus cycle time and isochronous processing; routing; integrated data record gateway; | W<br>P                   | X |   | 10/<br>16 |

## 19.7 H-CPU as of 09/07 (as of PCS 7 V7.0.1)

| Product name | Article no.<br>Firmware version | Brief description                                                                                                                                                                                           | Properties<br>(Page 129) |   |   |           |
|--------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|              |                                 |                                                                                                                                                                                                             | F                        | C | R | T         |
| CPU 412-3H   | 6ES7 412-3HJ14-0AB0<br>V4.5     | S7 CPU;<br>fault-tolerant and fail-safe capability; work memory 0.5 MB code and 0.25 MB data;<br>0.075 ms/1000 instructions; 8 KB DI/O; 16 connections;<br>1 DP / MPI, 1 DP and 2 slots for H-sync modules; | W                        | X |   | 02/<br>17 |
| CPU 414-4H   | 6ES7 414-4HM14-0AB0<br>V4.5     | S7 CPU;<br>fault-tolerant and fail-safe capability; work memory 1.4 MB code and 1.4 MB data;<br>0.045 ms/1000 instructions; 8 KB DI/O; 32 connections;<br>1 DP / MPI, 1 DP and 2 slots for H-sync modules;  | W                        | X |   | 02/<br>17 |
| CPU 417-4H   | 6ES7 417-4HT14-0AB0<br>V4.5     | S7 CPU;<br>fault-tolerant and fail-safe capability; work memory 15 MB code and 15 MB data;<br>0.018 ms/1000 instructions; 16 KB DI/O; 64 connections;<br>1 DP / MPI, 1 DP and 2 slots for H-sync modules;   | W                        | X |   | 02/<br>17 |

## 19.8 CPU as of 12/06 (as of PCS 7 V7.0)

| Product name    | Article no.<br>Firmware version             | Brief description                                                                                                                                                                                                                                                                                                    | Properties<br>(Page 129) |   |   |           |
|-----------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                 |                                             |                                                                                                                                                                                                                                                                                                                      | F                        | C | R | T         |
| CPU 414-3 DP    | 6ES7 414-3XM05-0AB0<br>V5.0                 | S7 CPU;<br>work memory 1.4 MB code and 1.4 MB data; 0.045 ms/1000 instructions;<br>8 KBDI/O; 32 connections;<br>1 DP / MPI, 1 DP and 1 slot for IF-modules;<br>send and receive capability for direct data exchange;<br>constant bus cycle time and isochronous processing; routing                                  | W                        | X |   | 02/<br>16 |
| CPU 414-3 DP    | 6ES7 414-3XM05-0AB0<br>V5.1 .. V5.3.x       | S7 CPU;<br>work memory 1.4 MB code and 1.4 MB data; 0.045 ms/1000 instructions;<br>8 KB DI/O; 32 connections;<br>1 DP / MPI, 1 DP and 1 slot for IF-modules;<br>send and receive capability for direct data exchange;<br>constant bus cycle time and isochronous processing; routing; integrated data record gateway | W                        | X |   | 02/<br>16 |
| CPU 414-3 PN/DP | 6ES7 414-3EM05-0AB0<br>V5.0<br>1)           | S7 CPU;<br>work memory 1.4 MB code and 1.4 MB data; 0.045 ms/1000 instructions;<br>8 KB DI/O; 32 connections;<br>1 DP / MPI, 1 PN and 1 slot for IF-modules;<br>send and receive capability for direct data exchange;<br>constant bus cycle time and isochronous processing; routing                                 | W                        | X |   | 10/<br>11 |
| CPU 414-3 PN/DP | 6ES7 414-3EM05-0AB0<br>V5.1 .. V5.3.x<br>1) | S7 CPU;<br>work memory 1.4 MB code and 1.4 MB data; 0.045 ms/1000 instructions;<br>8 KB DI/O; 32 connections;<br>1 DP / MPI, 1 PN and 1 slot for IF-modules;<br>send and receive capability for direct data exchange;<br>constant bus cycle time and isochronous processing; routing; integrated data record gateway | W                        | X |   | 10/<br>11 |
| CPU 416-2 DP    | 6ES7 416-2XN05-0AB0<br>V5.0                 | S7 CPU;<br>work memory 2.8 MB code and 2.8 MB data; 0.030 ms/1000 instructions;<br>16 KB DI/O; 64 connections;<br>1 DP / MPI, 1 DP;<br>send and receive capability for direct data exchange;<br>constant bus cycle time and isochronous processing; routing                                                          | W                        | X |   | 02/<br>16 |

| Product name    | Article no.<br>Firmware version                        | Brief description                                                                                                                                                                                                                                                                                                      | Properties<br>(Page 129) |   |   |           |
|-----------------|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                 |                                                        |                                                                                                                                                                                                                                                                                                                        | F                        | C | R | T         |
| CPU 416-2 DP    | 6ES7 416-2XN05-0AB0<br>V5.1 .. V5.3.x                  | S7 CPU;<br>work memory 2.8 MB code and 2.8 MB data; 0.030 ms/1000 instructions;<br>16 KB DI/O; 64 connections;<br>1 DP / MPI, 1 DP;<br>send and receive capability for direct data exchange;<br>constant bus cycle time and isochronous processing; routing; integrated data record gateway                            | W                        | X |   | 02/<br>16 |
| CPU 416-3 DP    | 6ES7 416-3XR05-0AB0<br>V5.0                            | S7 CPU;<br>work memory 5.6 MB code and 5.6 MB data; 0.030 ms/1000 instructions;<br>16 KBDI/O; 64 connections;<br>1 DP / MPI, 1 DP; and 1 slot for IF-modules;<br>send and receive capability for direct data exchange;<br>constant bus cycle time and isochronous processing; routing                                  | W                        | X |   | 02/<br>16 |
| CPU 416-3 DP    | 6ES7 416-3XR05-0AB0<br>V5.1 .. V5.3.x                  | S7 CPU;<br>work memory 5.6 MB code and 5.6 MB data; 0.030 ms/1000 instructions;<br>16 KB DI/O; 64 connections;<br>1 DP / MPI, 1 DP; and 1 slot for IF-modules;<br>send and receive capability for direct data exchange;<br>constant bus cycle time and isochronous processing; routing; integrated data record gateway | W                        | X |   | 02/<br>16 |
| CPU 416-3 PN/DP | 6ES7 416-3ER05-0AB0<br>V5.0<br><sup>1)</sup>           | S7 CPU;<br>work memory 5.6 MB code and 5.6 MB data; 0.030 ms/1000 instructions;<br>16 KBDI/O; 64 connections;<br>1 DP / MPI, 1 PN and 1 slot for IF-modules;<br>send and receive capability for direct data exchange;<br>constant bus cycle time and isochronous processing; routing                                   | W                        | X |   | 10/<br>11 |
| CPU 416-3 PN/DP | 6ES7 416-3ER05-0AB0<br>V5.1 .. V5.3.x<br><sup>1)</sup> | S7 CPU;<br>work memory 5.6 MB code and 5.6 MB data; 0.030 ms/1000 instructions;<br>16 KB DI/O; 64 connections;<br>1 DP / MPI, 1 PN and 1 slot for IF-modules;<br>send and receive capability for direct data exchange;<br>constant bus cycle time and isochronous processing; routing; integrated data record gateway  | W                        | X |   | 10/<br>11 |

| Product name | Article no.<br>Firmware version       | Brief description                                                                                                                                                                                                                                                                                                    | Properties<br>(Page 129) |   |   |           |
|--------------|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|              |                                       |                                                                                                                                                                                                                                                                                                                      | F                        | C | R | T         |
| CPU 417-4 DP | 6ES7 417-4XT05-0AB0<br>V5.0           | S7 CPU;<br>work memory 15 MB code and 15 MB data; 0.018 ms/1000 instructions;<br>16 KBDI/O; 64 connections;<br>1 DP / MPI, 1 DP and 2 slots for IF-modules;<br>send and receive capability for direct data exchange;<br>constant bus cycle time and isochronous processing; routing                                  | W                        | X |   | 10/<br>16 |
| CPU 417-4 DP | 6ES7 417-4XT05-0AB0<br>V5.1 .. V5.3.x | S7 CPU;<br>work memory 15 MB code and 15 MB data; 0.018 ms/1000 instructions;<br>16 KB DI/O; 64 connections;<br>1 DP / MPI, 1 DP and 2 slots for IF-modules;<br>send and receive capability for direct data exchange;<br>constant bus cycle time and isochronous processing; routing; integrated data record gateway | W                        | X |   | 10/<br>16 |

<sup>1)</sup> The internal PROFINET interface is not released for use with PCS 7.

## 19.9 H-CPU as of 08/04 (as of PCS 7 V6.1)

| Product name | Article no.<br>Firmware version | Brief description                                                                                                                                                                                                 | Properties<br>(Page 129) |   |   |           |
|--------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|              |                                 |                                                                                                                                                                                                                   | F                        | C | R | T         |
| CPU 414-4H   | 6ES7 414-4HJ04-0AB0<br>V4.x     | S7 CPU;<br>high availability and fail-safe capability;<br>work memory 0.7 MB code and 0.7 MB data;<br>0.08 ms/1000 instructions; 8 KB DI/O; 32 connections;<br>1 DP / MPI,<br>1 DP and 2 slots for H-sync modules | W                        | X |   | 01/<br>10 |
| CPU 417-4H   | 6ES7 417-4HL04-0AB0<br>V4.x     | S7 CPU;<br>high availability and fail-safe capability;<br>work memory 10 MB code and 10 MB data;<br>0.03 ms/1000 instructions; 16 KB DI/O; 64 connections;<br>1 DP / MPI,<br>1 DP and 2 slots for H-sync modules  | W                        | X |   | 01/<br>10 |



## 19.10 CPU as of 08/04 (as of PCS 7 V6.1)

| Product name | Article no.<br>Firmware version | Brief description                                                                                                                                                                                                                                                                    | Properties<br>(Page 129) |   |   |           |
|--------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|              |                                 |                                                                                                                                                                                                                                                                                      | F                        | C | R | T         |
| CPU 414-3    | 6ES7 414-3XJ04-0AB0<br>V4.x     | S7 CPU;<br>work memory 0.7 MB code and 0.7 MB data;<br>0.06 ms/1000 instructions.; 8 KB DI/O; 32 connections;<br>1 DP / MPI, 1 DP and 1 slot for IF-modules;<br>send and receive capability for direct data exchange;<br>constant bus cycle time and isochronous processing; routing | W                        | X |   | 03/<br>07 |
| CPU 416-2    | 6ES7 416-2XK04-0AB0<br>V4.x     | S7 CPU;<br>work memory 1.4 MB code and 1.4 MB data;<br>0.04 ms/1000 instructions; 16 KB DI/O; 64 connections;<br>1 DP / MPI, 1 DP;<br>send and receive capability for direct data exchange;<br>constant bus cycle time and isochronous processing; routing                           | W                        | X |   | 03/<br>07 |
| CPU 416-3    | 6ES7 416-3XL04-0AB0<br>V4.x     | S7 CPU;<br>work memory 2.8 MB code and 2.8 MB data;<br>0.04 ms/1000 instructions; 16 KB DI/O; 64 connections;<br>1 DP / MPI, 1 DP and 1 slot for IF-modules;<br>send and receive capability for direct data exchange;<br>constant bus cycle time and isochronous processing; routing | W                        | X |   | 03/<br>07 |
| CPU 417-4    | 6ES7 417-4XL04-0AB0<br>V4.x     | S7 CPU;<br>work memory 10 MB code and 10 MB data;<br>0.03 ms/1000 instructions; 16 KB DI/O; 64 connections;<br>1 DP / MPI, 1 DP and 2 slots for IF-modules; send and receive capability for direct data exchange;<br>constant bus cycle time and isochronous processing; routing     | W                        | X |   | 03/<br>07 |

## 19.11 H-CPU as of 04/99 (as of PCS 7 V5.0)

### Note

The extended driver design (PCS 7 V5.2) can be used with FW V3.0 and higher.

| Product name | Article no.<br>Firmware version       | Brief description                                                                                                                                                                                                                         | Properties<br>(Page 129) |   |   |           |
|--------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|              |                                       |                                                                                                                                                                                                                                           | F                        | C | R | T         |
| CPU 414-4H   | 6ES7 414-4HJ00-0AB0<br>V2.1.1; V2.1.2 | S7 CPU;<br>high availability; F-capability, work memory 384 KB code and 384 KB data; 0.1 ms/kA; 8 KB DI/O; 32 connections; 2 DP / MPI and 2 slots for H-sync modules                                                                      | W                        |   |   | 01/<br>06 |
| CPU 414-4H   | 6ES7 414-4HJ00-0AB0<br>V3.0           | S7 CPU;<br>high availability; F-capability, work memory 384 KB code and 384 KB data; 0.1 ms/kA; 8 KB DI/O; 32 connections; 2 DP / MPI and 2 slots for H-sync modules, direct data exchange, DP V1                                         | W                        |   |   | 01/<br>06 |
| CPU 414-4H   | 6ES7 414-4HJ00-0AB0<br>V3.1           | S7 CPU;<br>high availability; F-capability, work memory 384 KB code and 384 KB data; 0.1 ms/kA; 8 KB DI/O; 32 connections; 2 DP / MPI and 2 slots for H-sync modules, direct data exchange, DP V1                                         | W                        | X |   | 01/<br>06 |
| CPU 417-4H   | 6ES7 417-4HL00-0AB0<br>V2.0; V2.1.x   | S7 CPU;<br>high availability, work memory 2 MB code and 2 MB data; (can be extended to up to 20 MB); 0.1 ms/kA; 16 KB DI/O; 64 connections; 2 DP MPI and 2 slots for IF modules, routing                                                  | W                        |   |   | 09/<br>00 |
| CPU 417-4H   | 6ES7 417-4HL01-0AB0<br>V2.1           | S7 CPU;<br>high availability, work memory 2 MB code and 2 MB data; (can be extended to up to 20 MB); 0.1 ms/kA; 16 KB DI/O; 64 connections; 2 DP / MPI and 2 slots for H-sync modules, routing                                            | W                        |   |   | 01/<br>06 |
| CPU 417-4H   | 6ES7 417-4HL01-0AB0<br>V2.1.1; V2.1.2 | S7 CPU;<br>high availability, work memory 2 MB code and 2 MB data; (can be extended to up to 20 MB); 0.1 ms/kA; 16 KB DI/O; 64 connections; 2 DP / MPI and 2 slots for H-sync modules, routing                                            | W                        |   |   | 01/<br>06 |
| CPU 417-4H   | 6ES7 417-4HL01-0AB0<br>V3.0           | S7 CPU;<br>high availability, F-capability, work memory 2 MB code and 2 MB data; (can be extended to up to 20 MB); 0.1 ms/kA; 16 KB DI/O; 64 connections; 2 DP / MPI and 2 slots for H-sync modules, direct data exchange, routing, DP V1 | W                        |   |   | 01/<br>06 |
| CPU 417-4H   | 6ES7 417-4HL01-0AB0<br>V3.1           | S7 CPU;<br>high availability, F-capability, work memory 2 MB code and 2 MB data; (can be extended to up to 20 MB); 0.1 ms/kA; 16 KB DI/O; 64 connections; 2 DP / MPI and 2 slots for H-sync modules, direct data exchange, routing, DP V1 | W                        | X |   | 01/<br>06 |

## 19.12 CPU as of 04/99 (as of PCS 7 V5.0)

### Note

The extended driver design (PCS 7 V5.2) can be used with FW V3.0 and higher.

| Product name | Article no.<br>Firmware version | Brief description                                                                                                                                                                        | Properties<br>(Page 129) |   |   |           |
|--------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|              |                                 |                                                                                                                                                                                          | F                        | C | R | T         |
| CPU 414-3    | 6ES7 414-3XJ00-0AB0<br>V1.1     | S7 CPU;<br>work memory 384 KB code and 384 KB data; 0.1 ms/kA; 8 KB DI/O; 32 connections; 2 DP / MPI and 1 slot for IF modules; constant bus cycle                                       | W                        |   |   | 01/<br>05 |
| CPU 414-3    | 6ES7 414-3XJ00-0AB0<br>V1.2     | S7 CPU;<br>work memory 384 KB code and 384 KB data, 0.1 ms/kA; 8 KB DI/O; 32 connections, 2 DP / MPI and 1 slot for IF modules; constant bus cycle, direct data exchange; routing        | W                        |   |   | 01/<br>05 |
| CPU 414-3    | 6ES7 414-3XJ00-0AB0<br>V3.0     | S7 CPU;<br>work memory 384 KB code and 384 KB data, 0.1 ms/kA; 8 KB DI/O; 32 connections; 2 DP / MPI and 1 slot for IF modules; direct data exchange, constant bus cycle; routing; DP V1 | W                        |   |   | 01/<br>05 |
| CPU 414-3    | 6ES7 414-3XJ00-0AB0<br>V3.1     | S7 CPU;<br>work memory 384 KB code and 384 KB data; 0.1 ms/kA; 8 KB DI/O; 32 connections; 2 DP / MPI and 1 slot for IF modules; direct data exchange, constant bus cycle; routing; DP V1 | W                        | X |   | 01/<br>05 |
| CPU 416-2    | 6ES7 416-2XK02-0AB0<br>V1.1     | S7 CPU;<br>work memory 0.8 MB code and 0.8 MB data; 0.08 ms/kA; 16 KB DI/O; 64 connections; 2 DP / MPI; constant bus cycle                                                               | W                        |   |   | 01/<br>05 |
| CPU 416-2    | 6ES7 416-2XK02-0AB0<br>V1.2     | S7 CPU;<br>work memory 0.8 MB code and 0.8 MB data; 0.08 ms/kA; 16 KB DI/O; 64 connections; 2 DP / MPI; constant bus cycle, direct data exchange; routing                                | W                        |   |   | 01/<br>05 |
| CPU 416-2    | 6ES7 416-2XK02-0AB0<br>V3.0     | S7 CPU;<br>work memory 0.8 MB code and 0.8 MB data; 0.08 ms/kA; 16 KB DI/O; 64 connections; 2 DP/MPI; direct data exchange, constant bus cycle; routing; DPV1                            | W                        |   |   | 01/<br>05 |
| CPU 416-2    | 6ES7 416-2XK02-0AB0<br>V3.1     | S7 CPU;<br>work memory 0.8 MB code and 0.8 MB data; 0.08 ms/kA; 16 KB DI/O; 64 connections; 2 DP / MPI direct data exchange, constant bus cycle; routing; DPV1                           | W                        | X |   | 01/<br>05 |
| CPU 416-3    | 6ES7 416-3XL00-0AB0<br>V1.1     | S7 CPU; work memory 1.6 MB code and 1.6 MB data, 0.08 ms/kA; 16 KB DI/O; 64 connections; 2 DP / MPI and 1 slot for IF modules; constant bus cycle                                        | W                        |   |   | 01/<br>05 |

| Product name | Article no.<br>Firmware version | Brief description                                                                                                                                                                                                                                     | Properties<br>(Page 129) |   |   |           |
|--------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|              |                                 |                                                                                                                                                                                                                                                       | F                        | C | R | T         |
| CPU 416-3    | 6ES7 416-3XL00-0AB0<br>V1.2     | S7 CPU;<br>work memory 1.6 MB code and 1.6 MB data; 0.08 ms/kA; 16 KB DI/O; 64 connections; 2 DP / MPI and 1 slot for IF modules;<br>constant bus cycle, direct data exchange; routing                                                                | W                        |   |   | 01/<br>05 |
| CPU 416-3    | 6ES7 416-3XL00-0AB0<br>V3.0     | S7 CPU;<br>work memory 1.6 MB code and 1.6 MB data; 0.08 ms/kA; 16 KB DI/O; 64 connections; 2 DP / MPI and 1 slot for IF modules; direct data exchange,<br>constant bus cycle; routing; DP V1                                                         | W                        |   |   | 01/<br>05 |
| CPU 416-3    | 6ES7 416-3XL00-0AB0<br>V3.1     | S7 CPU;<br>work memory 1.6 MB code and 1.6 MB data; 0.08 ms/kA; 16 KB DI/O; 64 connections; 2 DP / MPI and 1 slot for IF modules; direct data exchange,<br>constant bus cycle; routing; DP V1                                                         | W                        | X |   | 01/<br>05 |
| CPU 417-4    | 6ES7 417-4XL00-0AB0<br>V1.1     | S7 CPU;<br>work memory 2 MB code and 2 MB data, (can be extended to up to 20 MB); 0.1 ms/kA; 16 KB DI/O;<br>64 connections; 2 DP / MPI and 2 slots for IF modules; receive capability for direct data exchange;<br>constant bus cycle; routing        | W                        |   |   | 01/<br>05 |
| CPU 417-4    | 6ES7 417-4XL00-0AB0<br>V1.2.0   | S7 CPU;<br>work memory 2 MB code and 2 MB data, (can be extended to up to 20 MB); 0.1 ms/kA; 16 KB DI/O;<br>64 connections; 2 DP / MPI and 2 slots for IF modules;<br>constant bus cycle/direct data exchange; routing                                | W                        |   |   | 01/<br>05 |
| CPU 417-4    | 6ES7 417-4XL00-0AB0<br>V3.0     | S7 CPU;<br>work memory 2 MB code and 2 MB data, (can be extended to up to 20 MB); 0.1 ms/kA; 16 KB DI/O;<br>64 connections; 2 DP / MPI and 2 slots for IF modules; receive capability for direct data exchange,<br>constant bus cycle, routing, DP V1 | W                        |   |   | 01/<br>05 |
| CPU 417-4    | 6ES7 417-4XL00-0AB0<br>V3.1     | S7 CPU;<br>work memory 2 MB code and 2 MB data, (can be extended to up to 20 MB); 0.1 ms/kA; 16 KB DI/O;<br>64 connections; 2 DP / MPI and 2 slots for IF modules; receive capability for direct data exchange,<br>constant bus cycle, routing, DP V1 | W                        | X |   | 01/<br>05 |

## 19.13 CPU prior to 04/99 (up to PCS 7 V4.02)

### Note

CPUs of this generation are only supported by driver designs up to PCS 7 V4.02.  
Upgrading to driver designs of PCS 7 V5.0 or later is not possible.

| Product name | Article no.         | Brief description                                                                                           | Properties<br>(Page 129) |   |   |           |
|--------------|---------------------|-------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|              |                     |                                                                                                             | F                        | C | R | T         |
| CPU 414-2 DP | 6ES7 414-2XJ00-0AB0 | S7 CPU;<br>384 KB work memory, 0.1 ms/kA,<br>8 KB DI/O, 32 connections, MPI and PROFIBUS DP<br>connection   | W                        |   |   | 04/<br>98 |
| CPU 414-2 DP | 6ES7 414-2XJ01-0AB0 | S7 CPU;<br>work memory 384 KB, 0.1 ms/kA,<br>8 KB DI/O, 32 connections, MPI and PROFIBUS DP<br>connection   | W                        |   |   | 03/<br>00 |
| CPU 416-2 DP | 6ES7 416-2XK00-0AB0 | S7 CPU;<br>work memory 0.8 MB, 0.08 ms/kA,<br>16 KB DI/O, 64 connections, MPI and PROFIBUS<br>DP connection | W                        |   |   | 04/<br>98 |
| CPU 416-2 DP | 6ES7 416-2XK01-0AB0 | S7 CPU;<br>work memory 0.8 MB, 0.08 ms/kA,<br>16 KB DI/O, 64 connections, MPI and PROFIBUS<br>DP connection | W                        |   |   | 02/<br>01 |
| CPU 416-2 DP | 6ES7 416-2XL00-0AB0 | S7 CPU;<br>work memory 1.6 MB, 0.08 ms/kA,<br>16 KB DI/O, 64 connections, MPI and PROFIBUS<br>DP connection | W                        |   |   | 05/<br>98 |
| CPU 416-2 DP | 6ES7 416-2XL01-0AB0 | S7 CPU;<br>work memory 1.6 MB, 0.08 ms/kA,<br>16 KB DI/O, 64 connections, MPI and PROFIBUS<br>DP connection | W                        |   |   | 02/<br>01 |

## 19.14 CP Ethernet

| Product name | Article no.<br>Firmware version | Brief description                                                                                                                                                                                | Properties<br>(Page 129) |   |   |           |
|--------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|              |                                 |                                                                                                                                                                                                  | F                        | C | R | T         |
| CP 443-1     | 6GK7 443-1BX00-0XE0             | S7 CP for Industrial Ethernet;<br>with SEND-RECEIVE interface, S7 communication                                                                                                                  |                          |   |   | 02/<br>03 |
| CP 443-1 ISO | 6GK7 443-1BX01-0XE0             | S7 CP for Industrial Ethernet;<br>with SEND-RECEIVE interface, S7 communication,<br>routing,<br>module replacement without programming device                                                    |                          |   |   | 02/<br>03 |
| CP 443-1 TCP | 6GK7 443-1EX01-0XE0             | S7 CP for Industrial Ethernet;<br>with TCP/IP, with SEND-RECEIVE interface, S7<br>communication, routing,<br>module replacement without programming device                                       |                          |   |   | 02/<br>03 |
| CP 443-1     | 6GK7 443-1EX02-0XE0<br>V5.2     | S7 CP for Industrial Ethernet; ISO and TCP/IP;<br>with SEND-RECEIVE and FETCH-WRITE inter-<br>face, long data, UDP, TCP, S7 functions, routing,<br>module replacement without programming device |                          |   |   | 02/<br>03 |

| Product name      | Article no.<br>Firmware version | Brief description                                                                                                                                                                                                                                                                  | Properties<br>(Page 129) |   |   |           |
|-------------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                   |                                 |                                                                                                                                                                                                                                                                                    | F                        | C | R | T         |
| CP 443-1          | 6GK7 443-1EX10-0XE0<br>V1.0     | S7 CP for Industrial Ethernet; ISO and TCP/IP; with SEND-RECEIVE and FETCH-WRITE interface, long data, UDP, TCP, S7 functions, routing, module replacement without programming device, 10/100 MBit fast send/receive                                                               |                          |   |   | 01/<br>01 |
| CP 443-1          | 6GK7 443-1EX10-0XE0<br>V2.x     | S7 CP for Industrial Ethernet; ISO and TCP/IP; with SEND-RECEIVE and FETCH-WRITE interface, long data, UDP, TCP, S7 functions, routing, module replacement without programming device, 10/100 MBit fast send/receive                                                               |                          |   |   | 01/<br>01 |
| CP 443-1          | 6GK7 443-1EX11-0XE0<br>V1.1     | S7 CP for Industrial Ethernet; ISO and TCP/IP; with SEND-RECEIVE and FETCH-WRITE interface, long data, UDP, TCP, S7 functions, routing, module replacement without programming device, 10/100 MBit                                                                                 |                          |   |   | 10/<br>09 |
| CP 443-1          | 6GK7 443-1EX11-0XE0<br>V2.x     | S7 CP for Industrial Ethernet ISO and TCP/IP; with SEND-RECEIVE and FETCH-WRITE interface, long data, UDP, TCP, S7 functions, routing, module replacement without programming device, 10/100 MBit, NTP, fixed MAC address                                                          |                          |   |   | 10/<br>09 |
| CP 443-1          | 6GK7 443-1EX20-0XE0<br>V2.x     | S7 CP for Industrial Ethernet ISO and TCP/IP; 2-port switch with SEND-RECEIVE and FETCH-WRITE interface, long data, UDP, TCP, S7 functions, routing, module replacement without programming device, 10/100 MBit, NTP, fixed MAC address                                            | W                        |   |   | 10/<br>15 |
| CP 443-1          | 6GK7 443-1EX30-0XE0<br>V3.x     | S7 CP for Industrial Ethernet ISO and TCP/IP; Profinet IO controller; 2-port switch with SEND-RECEIVE and FETCH-WRITE interface, long data, UDP, TCP, S7 functions, routing, module replacement without programming device, 10/100 MBit, NTP, fixed MAC address                    | W<br>P                   |   |   |           |
| CP 443-1          | 6GK7 443-1EX30-0XE1<br>V3.x     | S7 CP for Industrial Ethernet ISO and TCP/IP; Profinet IO controller; 2-port switch with SEND-RECEIVE and FETCH-WRITE interface, long data, UDP, TCP, S7 functions, routing, module replacement without programming device, 10/100 MBit, NTP, fixed MAC address; conformal coating | W<br>P                   |   |   |           |
| CP 443-1 Advanced | 6GK7 443-1GX30-0XE0<br>V3.x     | S7 CP for Industrial Ethernet ISO and TCP/IP; 5-port switch with SEND-RECEIVE and FETCH-WRITE interface, long data, UDP, TCP, S7 functions, routing, module replacement without programming device, 10/100/1000 MBit, NTP, fixed MAC address                                       | W                        |   |   |           |

## 19.15 CP PROFIBUS

| Product name      | Article no.<br>Firmware version | Brief description                                                                                                                                                                                                                    | Properties<br>(Page 129) |   |   |           |
|-------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                   |                                 |                                                                                                                                                                                                                                      | F                        | C | R | T         |
| CP 443-5 Extended | 6GK7 443-5DX01-0XE0             | PROFIBUS CP with PROFIBUS DP;<br>SEND-RECEIVE interface,<br>FMS and S7 communication; sync/freeze                                                                                                                                    |                          |   |   | 10/<br>01 |
| CP 443-5 Extended | 6GK7 443-5DX02-0XE0<br>V3.x     | PROFIBUS CP: DP master;<br>with sync/freeze and redundancy,<br>direct slave data exchange, equidistance,<br>SEND-RECEIVE interface,<br>S7 functions, time,<br>programming device routing, data record routing                        |                          |   |   | 08/<br>01 |
| CP 443-5 Extended | 6GK7 443-5DX03-0XE0<br>V4.0     | PROFIBUS CP: DP master;<br>with sync/freeze and redundancy,<br>direct data exchange, equidistance,<br>SEND-RECEIVE interface,<br>S7 functions, time synchronization, routing, data re-<br>cord routing, DP V1                        |                          |   |   | 05/<br>05 |
| CP 443-5 Extended | 6GK7 443-5DX03-0XE0<br>V5.x     | PROFIBUS CP: DP master;<br>with sync/freeze and redundancy,<br>direct data exchange, equidistance,<br>SEND-RECEIVE interface,<br>S7 functions, time synchronization, routing, data re-<br>cord routing, DP V1, CiR                   |                          | X |   | 05/<br>05 |
| CP 443-5 Extended | 6GK7 443-5DX04-0XE0<br>V6.x     | PROFIBUS CP: DP master;<br>with sync/freeze and redundancy,<br>direct data exchange, equidistance,<br>SEND-RECEIVE interface,<br>S7 communication, time synchronization, routing,<br>data record routing, DP V1, CiR                 | W                        | X |   | 09/<br>11 |
| CP 443-5 Extended | 6GK7 443-5DX05-0XE0<br>V7.x     | PROFIBUS CP: DP master;<br>with sync/freeze and redundancy,<br>direct data exchange, equidistance,<br>SEND-RECEIVE interface,<br>S7 communication, time synchronization, routing,<br>data record routing, DP V1, CiR                 | W                        | X |   |           |
| CP 443-5 Extended | 6GK7 443-5DX05-0XE1<br>V7.x     | PROFIBUS CP: DP master; with sync/freeze and<br>redundancy, direct data exchange, equidistance,<br>SEND-RECEIVE interface, S7 communication,<br>time synchronization, routing, data record routing,<br>DP V1, CiR; conformal coating | W                        | X |   |           |

## 19.16 IM

| Product name | Article no.         | Brief description                                                                                      | Properties<br>(Page 129) |   |   |           |
|--------------|---------------------|--------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|              |                     |                                                                                                        | F                        | C | R | T         |
| IM 460-0     | 6ES7 460-0AA00-0AB0 | Send interface module, 3 m,<br>without voltage transmission, with K bus                                |                          |   |   | 12/<br>01 |
| IM 460-0     | 6ES7 460-0AA01-0AB0 | Send interface module for central coupling up to 3 m,<br>without 5 V voltage transmission, with K bus  | W                        |   |   |           |
| IM 460-1     | 6ES7 460-1BA00-0AB0 | Send interface module, 1.5 m;<br>with voltage transmission, without K bus                              |                          |   |   | 12/<br>01 |
| IM 460-1     | 6ES7 460-1BA01-0AB0 | Send interface module for central coupling up to 1.5 m;<br>with voltage transmission, without K bus    | W                        |   |   |           |
| IM 460-3     | 6ES7 460-3AA00-0AB0 | Send interface module, 100 m;<br>without voltage transmission, with K bus                              |                          |   |   | 12/<br>01 |
| IM 460-3     | 6ES7 460-3AA01-0AB0 | Send interface module, 100 m;<br>without voltage transmission, with K bus                              | W                        |   |   |           |
| IM 460-4     | 6ES7 460-4AA01-0AB0 | Send interface module, 600 m;<br>without voltage transmission, without K bus                           | W                        |   |   | 10/<br>16 |
| IM 461-0     | 6ES7 461-0AA00-0AA0 | Receive interface module for central coupling up to 3 m;<br>without voltage transmission, with K bus   |                          |   |   | 12/<br>01 |
| IM 461-0     | 6ES7 461-0AA01-0AA0 | Receive interface module for central coupling up to 3 m;<br>without voltage transmission, with K bus   | W                        |   |   |           |
| IM 461-1     | 6ES7 461-1BA00-0AA0 | Receive interface module, 1.5 m;<br>with 5V voltage transmission, without K bus                        |                          |   |   | 12/<br>01 |
| IM 461-1     | 6ES7 461-1BA01-0AA0 | Receive interface module for central coupling up to 1.5 m;<br>with voltage transmission, without K bus | W                        |   |   |           |
| IM 461-3     | 6ES7 461-3AA00-0AA0 | Receive interface module, 100 m;<br>without voltage transmission, with K bus                           |                          |   |   | 12/<br>01 |
| IM 461-3     | 6ES7 461-3AA01-0AA0 | Receive interface module, 100 m;<br>without voltage transmission, with K bus                           | W                        |   |   |           |
| IM 461-4     | 6ES7 461-4AA01-0AA0 | Receive interface module, 600 m;<br>without voltage transmission, without K bus                        | W                        |   |   | 10/<br>16 |
| IM 463-2     | 6ES7 463-2AA00-0AA0 | Send interface module, 600 m;<br>for connecting S5 expansion unit with IM 314                          |                          |   |   | 03/<br>17 |



## 19.17 PS

| Product name | Article no.         | Brief description                                                                                              | Properties<br>(Page 129) |   |   |       |
|--------------|---------------------|----------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-------|
|              |                     |                                                                                                                | F                        | C | R | T     |
| PS 405 10A   | 6ES7 405-0KA00-0AA0 | Power supply DC 24 V / 10 A                                                                                    | W                        |   |   | 02/01 |
| PS 405 10A   | 6ES7 405-0KA01-0AA0 | Power supply DC 24 V / 10 A                                                                                    | W                        |   |   | 03/05 |
| PS 405 10A   | 6ES7 405-0KA02-0AA0 | Power supply DC 24 V / 10 A;<br>ATEX certification                                                             | W                        |   |   |       |
| PS 405 20A   | 6ES7 405-0RA01-0AA0 | Power supply DC 24 V / 10 A                                                                                    | W                        |   |   | 10/07 |
| PS 405 20A   | 6ES7 405-0RA02-0AA0 | Power supply DC 24 V / 10 A;<br>ATEX certification                                                             | W                        |   |   |       |
| PS 405 10A   | 6ES7 405-0KR00-0AA0 | Power supply DC 24 V / 10 A;<br>redundant power supply                                                         | W                        |   |   | 09/06 |
| PS 405 10A   | 6ES7 405-0KR02-0AA0 | Power supply DC 24 V / 10 A;<br>redundant power supply, ATEX certification                                     | W                        |   |   |       |
| PS 405 10A   | 6ES7 405-0KR02-0AA1 | Power supply DC 24 V / 10 A;<br>redundant power supply, ATEX certification,<br>variant with protective coating | W                        |   |   |       |
| PS 405 4A    | 6ES7 405-0DA02-0AA0 | Power supply DC 24/48/60 V, DC 5 V / 4 A, ATEX<br>certification                                                | W                        |   |   |       |
| PS 405 4A    | 6ES7 405-0DA02-0AA1 | Power supply DC 24/48/60 V; DC 5 V / 4 A, ATEX<br>certification,<br>variant with protective coating            | W                        |   |   |       |
| PS 407 10A   | 6ES7 407-0KA00-0AA0 | Power supply AC 120 / 230 V / 10 A                                                                             | W                        |   |   | 03/99 |
| PS 407 10A   | 6ES7 407-0KA01-0AA0 | Power supply AC 120 / 230 V / 10 A                                                                             | W                        |   |   | 02/07 |
| PS 407 10A   | 6ES7 407-0KA02-0AA0 | Power supply AC 120 / 230 V / 10 A                                                                             | W                        |   |   |       |
| PS 407 20A   | 6ES7 407-0RA01-0AA0 | Power supply AC 120 / 230 V / 20 A                                                                             | W                        |   |   | 09/06 |
| PS 407 20A   | 6ES7 407-0RA02-0AA0 | Power supply AC 120 / 230 V / 20 A                                                                             | W                        |   |   |       |
| PS 407 10A   | 6ES7 407-0KR00-0AA0 | Power supply AC 120 / 230 V / 10 A;<br>redundant power supply                                                  | W                        |   |   | 09/06 |
| PS 407 10A   | 6ES7 407-0KR02-0AA0 | Power supply AC 120 / 230 V / 10 A;<br>redundant power supply                                                  | W                        |   |   |       |
| PS 407 10A   | 6ES7 407-0KR02-0AA1 | Power supply AC 120 / 230 V; / 10 A;<br>redundant power supply,<br>variant with protective coating             | W                        |   |   |       |
| PS 407 4A    | 6ES7 407-0DA02-0AA0 | Power supply 4 A, UC 120/230 V, DC 5 V/4 A                                                                     | W                        |   |   |       |
| PS 407 4A    | 6ES7 407-0DA02-0AA1 | Power supply 4 A, UC 120/230 V, DC 5 V/4 A;<br>variant with protective coating                                 | W                        |   |   |       |

## 19.18 Racks

| Product name | Article no.         | Brief description                                                                                                  | Properties<br>(Page 129) |   |   |           |
|--------------|---------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|              |                     |                                                                                                                    | F                        | C | R | T         |
| UR2          | 6ES7 400-1JA00-0AA0 | Universal rack;<br>9 slots, not suitable for power supply modules in<br>redundant operation                        | W                        |   |   | 01/<br>98 |
| UR2          | 6ES7 400-1JA01-0AA0 | Universal rack;<br>9 slots                                                                                         | W                        |   |   |           |
| UR2 ALU      | 6ES7 400-1JA11-0AA0 | Universal aluminum rack;<br>9 slots                                                                                | W                        |   |   |           |
| UR2 ALU      | 6ES7 400-1JA11-0AA1 | Universal aluminum rack;<br>9slots,<br>variant with protective coating                                             | W                        |   |   |           |
| UR1          | 6ES7 400-1TA00-0AA0 | Universal rack;<br>18 slots, not suitable for power supply modules in<br>redundant operation                       | W                        |   |   | 08/<br>98 |
| UR1          | 6ES7 400-1TA01-0AA0 | Universal rack;<br>18 slots                                                                                        | W                        |   |   |           |
| UR1 ALU      | 6ES7 400-1TA11-0AA0 | Universal aluminum rack;<br>18slots                                                                                | W                        |   |   |           |
| UR2-H        | 6ES7 400-2JA00-0AA0 | Central rack;<br>18 slots, 2 segments (9 + 9),<br>mainly for H-systems                                             | W                        |   |   |           |
| UR2-H ALU    | 6ES7 400-2JA10-0AA0 | Central aluminum rack;<br>18 slots, 2 segments (9 + 9),<br>mainly for H systems                                    | W                        |   |   |           |
| UR2-H ALU    | 6ES7 400-2JA10-0AA1 | Central aluminum rack;<br>18slots, 2 segments (9 + 9),<br>mainly for H systems,<br>variant with protective coating | W                        |   |   |           |
| CR3          | 6ES7 401-1DA01-0AA0 | Central rack;<br>4 slots                                                                                           | W                        |   |   |           |
| CR3          | 6ES7 401-1DA01-0AA1 | Central rack;<br>4slots,<br>variant with protective coating                                                        | W                        |   |   |           |

## 19.19 SM DI

| Product name                      | Article no.         | Brief description                                                                                                            | Properties<br>(Page 129) |   |   |           |
|-----------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                   |                     |                                                                                                                              | F                        | C | R | T         |
| SM 421<br>DI 32xDC 24V            | 6ES7 421-1BL00-0AA0 | Digital input module<br>32 DI; DC 24 V;<br>grouping 32                                                                       | W                        |   |   | 10/<br>04 |
| SM 421<br>DI 32xDC 24V            | 6ES7 421-1BL01-0AA0 | Digital input module<br>32 DI; DC 24 V;<br>grouping 32                                                                       | W                        |   |   |           |
| SM 421<br>DI 32xAC 120V           | 6ES7 421-1EL00-0AA0 | Digital input module<br>32 DI; UC 120 V;<br>grouping 8                                                                       | W                        |   |   |           |
| SM 421<br>DI 16xUC 120/230V       | 6ES7 421-1FH00-0AA0 | Digital input module<br>16 DI; UC 120 / 230 V;<br>grouping 4                                                                 | W                        |   |   | 08/<br>02 |
| SM 421<br>DI 16xUC 120/230V       | 6ES7 421-1FH20-0AA0 | Digital input module<br>16 DI; UC 120 / 230 V;<br>grouping 4,<br>input characteristic curve according to IEC 1131,<br>type 2 | W                        |   |   |           |
| SM 421<br>DI 16xDC 24V            | 6ES7 421-7BH00-0AB0 | Digital input module<br>16 DI; DC 24 V;<br>grouping 1, hardware and diagnostic interrupts, as-<br>signable substitute values | W                        |   |   | 10/<br>04 |
| SM 421<br>DI 16xDC 24V            | 6ES7 421-7BH01-0AB0 | Digital input module<br>16 DI; DC 24 V;<br>grouping 8, hardware and diagnostic interrupts, as-<br>signable substitute values | W                        |   |   |           |
| SM421<br>DI 16xUC 24/60V<br>Alarm | 6ES7 421-7DH00-0AB0 | Digital input module<br>16 DI; UC 24 ... 60V;<br>grouping 1, hardware and diagnostic interrupts                              | W                        |   |   |           |
| SM421<br>DI 16xAC 120V            | 6ES7 421-5EH00-0AA0 | Digital input module<br>16 DI; AC 120 V;<br>grouping 1,<br>input characteristic curve according to IEC 1131,<br>type 2       | W                        |   |   | 10/<br>04 |

## 19.20 SM DO

| Product name                        | Article no.         | Brief description                                                                                           | Properties<br>(Page 129) |   |   |           |
|-------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------|--------------------------|---|---|-----------|
|                                     |                     |                                                                                                             | F                        | C | R | T         |
| SM 422<br>DO 16x<br>DC 24V/2A       | 6ES7 422-1BH10-0AA0 | Digital output module<br>16 DO; DC 24 V / 2 A;<br>grouping 8                                                | W                        |   |   | 10/<br>04 |
| SM 422<br>DO 16x<br>DC 24V/2A       | 6ES7 422-1BH11-0AA0 | Digital output module<br>16 DO; DC 24 V / 2 A;<br>grouping 8                                                | W                        |   |   |           |
| SM 422<br>DO 32x<br>DC 24V/0,5A     | 6ES7 422-1BL00-0AA0 | Digital output module<br>32 DO; DC 24 V / 0.5 A;<br>grouping 32                                             | W                        |   |   |           |
| SM 422<br>DO 8x<br>AC 120/230/5A    | 6ES7 422-1FF00-0AA0 | Digital output module<br>8 DO; AC 120 / 230 V / 5 A; grouping 1                                             | W                        |   |   | 10/<br>04 |
| SM 422<br>DO 16x<br>AC 120/230/2A   | 6ES7 422-1FH00-0AA0 | Digital output module<br>16 DO; AC 120 / 230 V / 2 A;<br>grouping 4                                         | W                        |   |   |           |
| SM 422<br>DO 16x<br>AC 230V/5A Rel. | 6ES7 422-1HH00-0AA0 | Digital output module<br>16 DO relays; AC 230 V, DC 60 V / 5 A;<br>grouping 4                               | W                        |   |   |           |
| SM 422<br>DO 32x<br>DC 24V/0.5A     | 6ES7 422-7BL00-0AB0 | Digital output module<br>32 DO; DC 24 V / 0.5 A;<br>grouping8,<br>diagnostics, assignable substitute values | W                        |   |   |           |
| SM 422<br>DO 16x<br>AC 120V/2A      | 6ES7 422-5EH00-0AB0 | Digital output module<br>16 DO; AC 120 V / 2 A;<br>diagnostics                                              | W                        |   |   | 10/<br>04 |
| SM 422<br>DO 16x<br>DC 20-125V/1.5A | 6ES7 422-5EH10-0AB0 | Digital output module<br>16 DO; DC 20 ... 125 V / 1.5 A;<br>grouping 8,<br>diagnostics                      | W                        |   |   | 10/<br>04 |

## 19.21 SM AI

| Product name           | Article no.         | Brief description                                                         | Properties<br>(Page 129) |   |   |   |
|------------------------|---------------------|---------------------------------------------------------------------------|--------------------------|---|---|---|
|                        |                     |                                                                           | F                        | C | R | T |
| SM 431<br>AI 16x13Bit  | 6ES7 431-0HH00-0AB0 | Analog input module<br>16 AI; 13 Bit;<br>integration time 16.7 / 20 ms    | W                        |   |   |   |
| SM 431<br>AI 8 x 13Bit | 6ES7 431-1KF00-0AB0 | Analog input module<br>8 AI; 12 + 1 Bit;<br>integration time 16.7 / 20 ms | W                        |   |   |   |

| Product name            | Article no.         | Brief description                                                                                                    | Properties<br>(Page 129) |   |   |   |
|-------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                         |                     |                                                                                                                      | F                        | C | R | T |
| SM 431<br>AI 8 x 14Bit  | 6ES7 431-1KF10-0AB0 | Analog input module<br>8 AI; 13 + 1 Bit;<br>integration time 16.7 / 20 ms;<br>linearization (RTD / TC)               | W                        |   |   |   |
| SM 431<br>AI 8 x 14Bit  | 6ES7 431-1KF20-0AB0 | Analog input module<br>8 AI; 13 + 1 Bit;<br>conversion time 10 µs                                                    | W                        |   |   |   |
| SM 431<br>AI 16 x 16Bit | 6ES7 431-7QH00-0AB0 | Analog input module<br>16 AI; 15 + 1 Bit;<br>integration time 16.7 / 20 ms;<br>linearization (RTD / TC), diagnostics | W                        |   |   |   |
| SM 431<br>AI 8 x 16Bit  | 6ES7 431-7KF00-0AB0 | Analog input module<br>8 "TC / U"<br>by channel Isol.                                                                | W                        |   |   |   |
| SM 431<br>AI 8 x 16Bit  | 6ES7 431-7KF10-0AB0 | Analog input module<br>8 "RTD"; 16 -bit                                                                              | W                        |   |   |   |

## 19.22 SM AO

| Product name          | Article no.         | Brief description                                                                         | Properties<br>(Page 129) |   |   |   |
|-----------------------|---------------------|-------------------------------------------------------------------------------------------|--------------------------|---|---|---|
|                       |                     |                                                                                           | F                        | C | R | T |
| SM432<br>AO 8 x 13Bit | 6ES7 432-1HF00-0AB0 | Analog output module<br>8 AO; 13 Bit;<br>conversion time 420 µs, 0 ... 10 V / 0 ... 20 mA | W                        |   |   |   |



## SIPLUS modules

You can find compatible SIPLUS versions of the modules which have been released for PCS 7 in this documentation.

### Engineering note

You will not find any SIPLUS modules in the PCS 7 hardware catalog.

- Configure the modules available in the hardware catalog.
- Install the compatible SIPLUS versions of the modules available in the hardware catalog.





# Appendix

## A.1 Properties

### Properties in the module list

| Column | Meaning of column | Identifier | Meanings                                                        |
|--------|-------------------|------------|-----------------------------------------------------------------|
| F      | Functions         | P          | Component has been released for PROFINET                        |
|        |                   | W          | Module wizard is supported                                      |
|        |                   | E          | Component is released for central use with PCS 7 AS mEC RTX     |
|        |                   | Y          | Component can be installed behind the Y-Link                    |
|        |                   | SM         | Component is released for use behind the IM 650-8               |
| C      | CiR support       | X          | Station can be installed and removed with CiR                   |
|        |                   | S          | Station can be reconfigured "Online"                            |
|        |                   | M          | Module can be installed and removed with CiR                    |
|        |                   | O          | Module parameters can be changed "online"                       |
|        |                   | OS         | Module parameters can be changed "online" only in standard mode |
| R      | Redundant I/O     | X          | Component is supported                                          |
|        |                   | A          | Redundant connection is possible                                |
|        |                   | M          | By module                                                       |
|        |                   | G          | By group                                                        |
|        |                   | C          | By channel                                                      |
| T      | Discontinuation   |            | On specified date (month/year)                                  |

