

Product type designation

CP 1542-5

COMMUNICATION PROCESSOR CP 1542-5 FOR CONNECTING SIMATIC S7-1500 TO PROFIBUS DP DPV1-MASTER OR DP-SLAVE, S7-AND PG/OP COMMUNICATION, CLOCK SYNCHRONISATION DIAGNOSTICS, LESS DATA



Transmission rate

Transfer rate

- at the 1st interface / acc. to PROFIBUS

9.6 kbit/s ... 12 Mbit/s

Interfaces

Number of interfaces / acc. to Industrial Ethernet

0

Number of electrical connections

- at the 1st interface / acc. to PROFIBUS

1

Type of electrical connection

- at the 1st interface / acc. to PROFIBUS

9-pin Sub-D socket (RS485)

Supply voltage, current consumption, power loss

Type of voltage / of the supply voltage

DC

Supply voltage / 1 / from backplane bus

15 V

Relative symmetrical tolerance / at DC

- at 15 V

3 %

Consumed current

- from backplane bus / at DC / at 15 V / typical

0.1 A

Power loss [W]

1.5 W

Permitted ambient conditions

Ambient temperature	
<ul style="list-style-type: none"> • for vertical installation / during operation 	0 ... 40 °C
<ul style="list-style-type: none"> • for horizontally arranged busbars / during operation 	0 ... 60 °C
<ul style="list-style-type: none"> • during storage 	-40 ... +70 °C
<ul style="list-style-type: none"> • during transport 	-40 ... +70 °C
Relative humidity / at 25 °C / without condensation / during operation / maximum	95 %
Protection class IP	IP20

Design, dimensions and weight

Module format	Compact module S7-1500 single width
Width	35 mm
Height	142 mm
Depth	129 mm
Net weight	0.27 kg
Mounting type	
<ul style="list-style-type: none"> • S7-1500 rail mounting 	Yes

Product properties, functions, components / general

Number of units	
<ul style="list-style-type: none"> • per CPU / maximum 	8
<ul style="list-style-type: none"> • Note 	depending on CPU type

Performance data / PROFIBUS DP

Service / as DP master	
<ul style="list-style-type: none"> • DPV1 	Yes
Number of DP slaves / on DP master / usable	32
Amount of data	
<ul style="list-style-type: none"> • of the address area of the inputs / as DP master / total 	2048 byte
<ul style="list-style-type: none"> • of the address area of the outputs / as DP master / total 	2048 byte
<ul style="list-style-type: none"> • of the address area of the inputs / per DP slave 	244 byte
<ul style="list-style-type: none"> • of the address area of the outputs / per DP slave 	244 byte
Service / as DP slave	
<ul style="list-style-type: none"> • DPV0 	Yes
<ul style="list-style-type: none"> • DPV1 	Yes
Amount of data	
<ul style="list-style-type: none"> • of the address area of the inputs / as DP slave / total 	240 byte
<ul style="list-style-type: none"> • of the address area of the outputs / as DP slave / total 	240 byte

Performance data / S7 communication

Number of possible connections / for S7 communication

- maximum
- Note

16
depending on the system upper limit

Performance data / multi-protocol mode

Number of active connections / with multi-protocol mode

16

Performance data / telecontrol

Protocol / is supported

- TCP/IP

No

Configuration software

- required

STEP 7 Professional V12 SP1 (TIA Portal) or higher

Identification & maintenance function

- I&M0 - device-specific information
- I&M1 – higher-level designation/location designation

Yes

Yes

Product functions / Diagnosis

Product function / Web-based diagnostics

Yes; yes, via S7-1500 CPU

Product functions / Time

Product function / pass on time synchronization

Yes

Accessories

Further Information / Internet Links

Internet-Link

- to website: Selector SIMATIC NET SELECTION TOOL
- to website: Industrial communication
- to website: Industry Mall
- to website: Information and Download Center
- to website: Image database
- to website: CAx Download Manager
- to website: Industry Online Support

<http://www.siemens.com/snst>

<http://www.siemens.com/simatic-net>

<https://mall.industry.siemens.com>

<http://www.siemens.com/industry/infocenter>

<http://automation.siemens.com/bilddb>

<http://www.siemens.com/cax>

<https://support.industry.siemens.com>

Security information

Security information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, solutions, machines, equipment and/or networks. They are important components in a holistic industrial security concept. With this in mind, Siemens' products and solutions undergo continuous development. Siemens recommends strongly that you regularly check for product updates. For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action (e.g. cell protection concept) and integrate each component into a holistic, state-of-the-art industrial security concept. Third-party products that may be in use should also be considered. For more information about industrial security, visit <http://www.siemens.com/industrialsecurity>. To stay informed about product updates as they occur, sign up for a product-specific newsletter. For more information, visit <http://support.automation.siemens.com>. (V3.4)

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