

product type designation



CP 1542-5

Communications processor CP 1542-5 for connection of SIMATIC S7-1500 to PROFIBUS DP, DPV1 master or DP slave, S7 and PG/OP communication, time-of-day synchronization, diagnostics, reduced quantity structure.

transfer rate	
transfer rate	
<ul style="list-style-type: none"> at the 1st interface / according to PROFIBUS 	9.6 kbit/s ... 12 Mbit/s
interfaces	
number of interfaces / according to Industrial Ethernet	0
number of electrical connections	
<ul style="list-style-type: none"> at the 1st interface / according to PROFIBUS 	1
type of electrical connection	
<ul style="list-style-type: none"> at the 1st interface / according 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	
<ul style="list-style-type: none"> at 15 V 	3 %
consumed current	
<ul style="list-style-type: none"> from backplane bus / at DC / at 15 V / typical 	0.2 A
power loss [W]	3 W
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> for vertical installation / during operation for horizontally arranged busbars / during operation during storage during transport note 	-25 ... +40 °C -25 ... +60 °C -40 ... +70 °C -40 ... +70 °C without condensation or icing
installation altitude / at height above sea level / maximum	5000 m
ambient condition / relating to ambient temperature - air pressure - installation altitude	restrictions for installation altitudes > 2 000 m, see manual
relative humidity	
<ul style="list-style-type: none"> at 25 °C / without condensation / during operation / maximum 	95 %
protection class IP	IP20
design, dimensions and weights	
module format	Compact module S7-1500 single width
width	35 mm
height	142 mm
depth	129 mm
net weight	0.4 kg
fastening method	
<ul style="list-style-type: none"> S7-1500 rail mounting 	Yes

product features, product functions, product components / general

number of units	8
• per CPU / maximum	depending on CPU type
• note	

performance data / PROFIBUS DP

service / as DP master	Yes
• DPV1	
number of DP slaves	32
• on DP master / operable	
data volume	
• of the address range of the inputs / as DP master / total	2048 byte
• of the address range of the outputs / as DP master / total	2048 byte
• of the address range of the inputs / per DP slave	244 byte
• of the address range of the outputs / per DP slave	244 byte
service / as DP slave	Yes
• DPV0	Yes
• DPV1	Yes
data volume	
• of the address range of the inputs / as DP slave / total	240 byte
• of the address range of the outputs / as DP slave / total	240 byte

performance data / S7 communication

number of possible connections / for S7 communication	16; depending on the system upper limit
• maximum	

performance data / multi-protocol mode

number of active connections / with multi-protocol mode	16
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performance data / telecontrol

protocol / is supported	No
• TCP/IP	

product functions / management, configuration, engineering

configuration software	STEP 7 Professional V18 (TIA Portal) or higher
• required	
identification & maintenance function	Yes
• I&M0 - device-specific information	Yes
• I&M1 - higher level designation/location designation	Yes

product functions / diagnostics

product function / web-based diagnostics	Yes; via S7-1500 CPU
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product functions / time

product function / pass on time synchronization	Yes
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standards, specifications, approvals / hazardous environments

certificate of suitability / CCC / for hazardous zone according to GB standard	Yes; GB3836.1, GB3836.8
certificate of suitability / CCC / for hazardous zone according to GB standard / as marking	Ex nA IIC T4 Gc

standards, specifications, approvals / Environmental Product Declaration

Environmental Product Declaration	Yes
Global Warming Potential [CO2 eq]	
• total	115.52 kg
• during manufacturing	21.24 kg
• during operation	93.93 kg
• after end of life	0.35 kg

further information / internet links

internet link	
• to website: Image database	https://www.automation.siemens.com/bilddb
• to website: Industry Online Support	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, 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
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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/cert>. (V4.6)

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