

Data sheet

6GK7542-5FX10-0XE0

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	9.6 kbit/s ... 12 Mbit/s
• at the 1st interface / according to PROFIBUS	

interfaces

number of interfaces / according to Industrial Ethernet	0
number of electrical connections	
• at the 1st interface / according to PROFIBUS	1
type of electrical connection	
• 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	
• at 15 V	3 %
consumed current	
• from backplane bus / at DC / at 15 V / typical	0.2 A
power loss [W]	3 W

ambient conditions

ambient temperature	
• for vertical installation / during operation	-30 ... +40 °C
• for horizontally arranged busbars / during operation	-30 ... +60 °C
• during storage	-40 ... +70 °C
• during transport	-40 ... +70 °C
• note	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	
• 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	
• S7-1500 rail mounting	Yes

product features, product functions, product components / general		
number of units	8	depending on CPU type
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		
• 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		
• maximum	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	
product functions / management, configuration, engineering		
configuration software		
• required	STEP 7 Professional V18 (TIA Portal) or higher	
identification & maintenance function		
• 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	
product functions / time		
product function / pass on time synchronization	Yes	
standards, specifications, approvals		
reference code		
• according to IEC 81346-2:2019	KEC	
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: Selection guide for cables and connectors	https://support.industry.siemens.com/cs/ww/en/view/109766358	
• to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud	
• to website: Industrial communication	https://www.siemens.com/simatic-net	
• to web page: SiePortal	https://sieportal.siemens.com/	
• to website: Image database	https://www.automation.siemens.com/bilddb	
• to website: CAx-Download-Manager	https://siemens.com/cax	
• to website: Industry Online Support	https://support.industry.siemens.com	
security information		
security information	Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber	

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Approvals / Certificates

General Product Approval	For use in hazardous locations	Environment
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