## SIEMENS

## Data sheet

## 6GK7542-5FX00-0XE0

product	type	designation
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## 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       • 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       1         • at the 1st interface / according to PROFIBUS       1         type of electrical connection       9-pin Sub-D socket (RS485)         supply voltage / according to PROFIBUS       9-pin Sub-D socket (RS485)         supply voltage / 1 from backplane bus       15 V         relative symmetrical tolerance / at DC       3 %         consumed current       0.1 A         power loss [W]       0.1 A         ambient temperature       0 40 °C         • for horizontally arranged busbars / during operation       0 40 °C         • during storage       -40 +70 °C         • during transport       -40 +70 °C         relative humidity       95 %         edisign, dimensions and weights       Compact module S7-1500 single width         module format       0.27 kg         fastening method       0.27 kg         e/S * 0 roll mounting       Yes	transfer rate	
Interfaces         0           number of electrical connections         0           • at the 1st interface / according to PROFIBUS         1           type of electrical connection         9-pin Sub-D socket (RS485)           supply voltage, current consumption, power loss         15 V           type of voltage / 1 from backplane bus         15 V           relative symmetrical tolerance / at DC         3 %           consumed current         0.1 A           • of the supply voltage / 1 from backplane bus         1.5 W           ambient conditions         0 40 °C           • of the rotical installation / during operation         0 40 °C           • of or vortical installation / during operation         0 40 °C           • during storage         -40 +70 °C           • during storage         -40 +70 °C           • during storage         IP20           design, dimensions and weights         module 57-1500 single width           module format         Compact module 57-1500 single width           width         35 mn           height         142 mm           depth         129 mm           net weight         0.27 kg           fastening method         0.27 kg           s7-1500 rail mounting         Yes	transfer rate	
number of interfaces / according to Industrial Ethernet         0           number of electrical connections         1           • at the 1st interface / according to PROFIBUS         1           type of electrical connection         9-pin Sub-D socket (RS485)           supply voltage, current consumption, power loss         15 V           type of voltage / 11 from backplane bus         15 V           relative symmetrical tolerance / at DC         3 %           consumed current         040 °C           • for backplane bus / at DC / at 15 V / typical         0.1 A           power loss [W]         1.5 W           ambient conditions         040 °C           • for vertical installation / during operation         040 °C           • for vertical installation / during operation         040 °C           • during storage         40+70 °C           • during storage         1P20           design, dimensions and weights         1P20           design, dimensions and weights         Compact module S7-1500 single width           width         35 mm           height         142 mm           depth         0.27 kg           fastening method         0.27 kg           for voltage / florends         0.27 kg	<ul> <li>at the 1st interface / according to PROFIBUS</li> </ul>	9.6 kbit/s 12 Mbit/s
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     DC       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     0.1 A       • from backplane bus / at DC / at 15 V / typical     0.1 A       power loss [W]     1.5 W       ambient temperature     0 40 °C       • for horizontally arranged busbars / during operation     0 40 °C       • during storage     -40 +70 °C       • during transport     -40 +70 °C       relative humidity     95 %       • at 25 °C / without condensation / during operation / maximum     1P20       design, dimensions and weights     Compact module S7-1500 single width       module format     Compact module S7-1500 single width       width     35 mm       height     0.27 kg       fastening method     -       • S7-1500 rail mounting     Yes       product features, product functions, product components / general       number of units	interfaces	
• at the 1st interface / according to PROFIBUS     1       type of electrical connection     9-pin Sub-D socket (RS485)       • at the 1st interface / according to PROFIBUS     9-pin Sub-D socket (RS485)       supply voltage / of the supply voltage     DC       supply voltage / 1/ from backplane bus     15 V       relative symmetrical tolerance / at DC     • at 15 V       • at 15 V     3 %       consumed current     0.1 A       • power loss [W]     1.5 W       ambient conditions     1.60 °C       • during storage     -40 °C       • during storage     -40 °C       • during storage     -40 ° +70 °C       • during transport     -40 · +70 °C       relative humidity     -40 · +70 °C       • design, dimensions and weights	number of interfaces / according to Industrial Ethernet	0
type of electrical connection       • at the 1st interface / according to PROFIBUS       9-pin Sub-D socket (RS485)         supply voltage, current consumption, power loss       DC         type of voltage / of the supply voltage       DC         supply voltage / 1 / from backplane bus       15 V         relative symmetrical tolerance / at DC       3 %         consumed current       0.1 A         of rom backplane bus / at DC / at 15 V / typical       0.1 A         power loss [W]       1.5 W         ambient conditions       0 40 °C         ambient temperature       0 40 °C         of or vertical installation / during operation       0 40 °C         o +70 °C       -40 +70 °C         elating storage       -40 +70 °C         elating storage       -95 %         maximum       95 %         protection class IP       IP20         design, dimensions and weights       Compact module S7-1500 single width         width       35 mm         height       0.27 kg         fastening method       0.27 kg	number of electrical connections	
• at the 1st interface / according to PROFIBUS         9-pin Sub-D socket (RS485)           supply voltage, current consumption, power loss         DC           supply voltage / 1 / form backplane bus         15 V           relative symmetrical tolerance / at DC         3 %           ocnsumed current         0.1 A           order to machine bus / at DC / at 15 V / typical         0.1 A           power loss [W]         1.5 W           ambient conditions         0           ambient tomperature         0           of no horizontally arranged busbars / during operation         0 40 °C           of no horizontally arranged busbars / during operation         0 40 °C           eduring torage         40 +70 °C           eduring torage         40 +70 °C           eduring torage         40 +70 °C           relative humidity         95 %           maximum         protection class IP           protection class IP         IP20           design, dimensions and weights         Compact module S7-1500 single width           width         35 mm           height         0.27 kg           fastening method         S7-1500 rail mounting           ves         Yes	<ul> <li>at the 1st interface / according to PROFIBUS</li> </ul>	1
supply voltage, current consumption, power loss       DC         supply voltage / of the supply voltage       DC         supply voltage / 1 / from backplane bus       15 V         relative symmetrical tolerance / at DC       3 %         consumed current       3 %         e at 15 V       3 %         consumed current       0.1 A         power loss [W]       1.5 W         ambient conditions       0 40 °C         ambient temperature       6 for vortical installation / during operation         • for vortical installation / during operation       0 60 °C         • during storage       -40 +70 °C         • during transport       -40 +70 °C         relative humidity       • at 25 °C / without condensation / during operation / maximum         protection class IP       IP20         design, dimensions and weights       Compact module S7-1500 single width         width       35 mm         height       142 mm         depth       129 mm         net weight       0.27 kg         fastening method       •S7-1500 rail mounting         Yes       Product features, product functions, product components / general         number of units       Yes	type of electrical connection	
type of voltage / of the supply voltage         DC           supply voltage / 1 / from backplane bus         15 V           relative symmetrical tolerance / at DC         3 %           • at 15 V         3 %           consumed current         0.1 A           power loss [W]         1.5 W           ambient conditions         0.1 A           ambient temperature         0.1 A           • for vertical installation / during operation         0 40 °C           • during storage         -40 +70 °C           • during transport         -40 +70 °C           relative humidity         95 %           maximum         1P20           design, dimensions and weights         Imodule S7-1500 single width           width         35 mm           height         142 mm           depth         129 mm           net weight         0.27 kg           fastening method         9.27 kg           extrema controling         Yes	<ul> <li>at the 1st interface / according to PROFIBUS</li> </ul>	9-pin Sub-D socket (RS485)
supply voltage / 1 / from backplane bus       15 V         relative symmetrical tolerance / at DC       3 %         consumed current       0.1 A         power loss [W]       0.1 A         ambient conditions       15 W         ambient conditions       0 40 °C         ambient strange       0 40 °C         of or vertical installation / during operation       0 40 °C         of or vertical installation / during operation       0 40 °C         of during storage       -40 +70 °C         e during transport       -40 +70 °C         relative humidity       95 %         orall dimensions and weights       0 400 °C         module format       Compact module S7-1500 single width         width       35 mm         height       142 mm         depth       129 mm         net weight       0.27 kg         fastening method       97-1500 rail mounting         Yes       Product features, product functions, product components / general         number of units       Yes	supply voltage, current consumption, power loss	
relative symmetrical tolerance / at DC       3 %         • at 15 V       3 %         consumed current       0.1 A         • from backplane bus / at DC / at 15 V / typical       0.1 A         power loss [W]       1.5 W         ambient conditions       0 40 °C         ambient stemperature       0 60 °C         • for vertical installation / during operation       0 60 °C         • during storage       -40 +70 °C         • during transport       -40 +70 °C         relative humidity       • at 25 °C / without condensation / during operation / maximum         protection class IP       IP20         design, dimensions and weights       Compact module S7-1500 single width         width       35 mm         height       129 mm         net weight       0.27 kg         fastening method       • S7-1500 rail mounting         • S7-1500 rail mounting       Yes         product features, product functions, product components / general       number of units	type of voltage / of the supply voltage	DC
• at 15 V       3 %         consumed current       .1 A         • from backplane bus / at DC / at 15 V / typical       0.1 A         power loss [W]       1.5 W         ambient conditions       ambient temperature         • for vertical installation / during operation       0 40 °C         • for horizontally arranged busbars / during operation       0 40 °C         • during storage       -40 +70 °C         • during transport       -40 +70 °C         relative humidity       -42 +70 °C         • at 25 °C / without condensation / during operation / maximum       95 %         protection class IP       IP20         design, dimensions and weights       Compact module S7-1500 single width         width       35 mm         height       129 mm         net weight       0.27 kg         fastening method       -         • S7-1500 rall mounting       Yes         product features, product functions, product components / general       number of units	supply voltage / 1 / from backplane bus	15 V
consumed current     0.1 A       power loss [W]     1.5 W       ambient conditions     ambient temperature       • for vertical installation / during operation     0 40 °C       • for vortical installation / during operation     0 60 °C       • during storage     -40 +70 °C       • during transport     -40 +70 °C       relative humidity     95 %       protection class IP     IP20       design, dimensions and weights     Compact module S7-1500 single width       module format     Compact module S7-1500 single width       width     35 mm       height     142 mm       depth     129 mm       net weight     0.27 kg       fastening method     Yes       product features, product functions, product components / general	relative symmetrical tolerance / at DC	
• from backplane bus / at DC / at 15 V / typical       0.1 A         power loss [W]       1.5 W         ambient conditions       ambient temperature         • for vertical installation / during operation       0 40 °C         • for horizontally arranged busbars / during operation       0 60 °C         • during storage       -40 +70 °C         • during transport       -40 +70 °C         relative humidity       95 %         maximum       95 %         protection class IP       IP20         design, dimensions and weights       Compact module S7-1500 single width         width       35 mm         height       142 mm         depth       129 mm         net weight       0.27 kg         fastening method	• at 15 V	3 %
power loss [W]       1.5 W         ambient conditions         ambient temperature         • for vertical installation / during operation         0 40 °C         • for horizontally arranged busbars / during operation         • during storage         • during transport         • during transport         • during transport         • at 25 °C / without condensation / during operation / maximum         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       0.27 kg         fastening method       S7-1500 rail mounting         vers       Yes         product features, product functions, product components / general         number of units       Image of units	consumed current	
ambient conditions         ambient temperature         • for vertical installation / during operation         • for horizontally arranged busbars / during operation         • during storage         • during transport         • during transport         • at 25 °C / without condensation / during operation / maximum         protection class IP         IP20         design, dimensions and weights         module format         width         height         142 mm         depth         net weight         0.27 kg         fastening method         • S7-1500 rail mounting         Yes         product features, product functions, product components / general         number of units	<ul> <li>from backplane bus / at DC / at 15 V / typical</li> </ul>	0.1 A
ambient temperature <ul> <li>for vertical installation / during operation</li> <li>for horizontally arranged busbars / during operation</li> <li>during storage</li> <li>during transport</li> <li>at 25 °C / without condensation / during operation / maximum</li> <li>protection class IP</li> <li>module format</li> <li>widh</li> <li>height</li> <li>depth</li> <li>net weight</li> <li>o.27 kg</li> </ul> <li>product features, product functions, product components / general</li>	power loss [W]	1.5 W
<ul> <li>for vertical installation / during operation</li> <li>for horizontally arranged busbars / during operation</li> <li>during storage</li> <li>during transport</li> <li>at 25 °C / without condensation / during operation / maximum</li> <li>at 25 °C / without condensation / during operation / maximum</li> <li>at 25 °C / without condensation / during operation / maximum</li> <li>protection class IP</li> <li>IP20</li> <li>design, dimensions and weights</li> <li>module format</li> <li>Compact module S7-1500 single width</li> <li>35 mm</li> <li>height</li> <li>height</li> <li>142 mm</li> <li>depth</li> <li>0.27 kg</li> <li>fastening method</li> <li>S7-1500 rail mounting</li> <li>Yes</li> <li>product features, product functions, product components / general</li> <li>number of units</li> </ul>	ambient conditions	
<ul> <li>for horizontally arranged busbars / during operation</li> <li>during storage</li> <li>during transport</li> <li>40 +70 °C</li> <li>during transport</li> <li>40 +70 °C</li> <li>etative humidity</li> <li>at 25 °C / without condensation / during operation / maximum</li> <li>protection class IP</li> <li>IP20</li> <li>design, dimensions and weights</li> <li>module format</li> <li>Compact module S7-1500 single width</li> <li>35 mm</li> <li>height</li> <li>height</li> <li>height</li> <li>net weight</li> <li>o.27 kg</li> <li>fastening method</li> <li>S7-1500 rail mounting</li> <li>Yes</li> <li>product features, product functions, product components / general</li> <li>number of units</li> </ul>	ambient temperature	
• during storage       -40 +70 °C         • during transport       -40 +70 °C         relative humidity       -40 +70 °C         relative humidity       95 %         maximum       95 %         protection class IP       IP20         design, dimensions and weights       Gompact module S7-1500 single width         module format       Compact module S7-1500 single width         width       35 mm         height       142 mm         depth       129 mm         net weight       0.27 kg         fastening method       Yes         product features, product functions, product components / general         number of units       Image of units	<ul> <li>for vertical installation / during operation</li> </ul>	0 40 °C
• during transport     -40 +70 °C       relative humidity     95 %       • at 25 °C / without condensation / during operation / maximum     95 %       protection class IP     IP20       design, dimensions and weights     Compact module S7-1500 single width       width     35 mm       height     142 mm       depth     129 mm       net weight     0.27 kg       fastening method     S7-1500 rail mounting       Yes     product features, product functions, product components / general	<ul> <li>for horizontally arranged busbars / during operation</li> </ul>	0 60 °C
relative humidity       95 %         • at 25 °C / without condensation / during operation / maximum       95 %         protection class IP       IP20         design, dimensions and weights       Compact module S7-1500 single width         module format       Compact module S7-1500 single width         width       35 mm         height       142 mm         depth       129 mm         net weight       0.27 kg         fastening method       Ves         product features, product functions, product components / general         number of units       Image: State S	<ul> <li>during storage</li> </ul>	-40 +70 °C
• at 25 °C / without condensation / during operation / maximum       95 %         protection class IP       IP20         design, dimensions and weights       Compact module S7-1500 single width         width       35 mm         height       142 mm         depth       129 mm         net weight       0.27 kg         fastening method       Yes         product features, product functions, product components / general         number of units       Image: State Stat	during transport	-40 +70 °C
maximum     IP20       design, dimensions and weights     IP20       design, dimensions and weights     Compact module S7-1500 single width       module format     Compact module S7-1500 single width       width     35 mm       height     142 mm       depth     129 mm       net weight     0.27 kg       fastening method     Yes       product features, product functions, product components / general       number of units	relative humidity	
design, dimensions and weights         module format       Compact module \$7-1500 single width         width       35 mm         height       142 mm         depth       129 mm         net weight       0.27 kg         fastening method       • \$7-1500 rail mounting         Yes       product features, product functions, product components / general         number of units       Image: state states	<b>5</b> 1	95 %
module format       Compact module S7-1500 single width         width       35 mm         height       142 mm         depth       129 mm         net weight       0.27 kg         fastening method       • S7-1500 rail mounting         Yes       product features, product functions, product components / general         number of units       Image: state	protection class IP	IP20
width     35 mm       height     142 mm       depth     129 mm       net weight     0.27 kg       fastening method     0.27 kg       • S7-1500 rail mounting     Yes       product features, product functions, product components / general       number of units	design, dimensions and weights	_
height       142 mm         depth       129 mm         net weight       0.27 kg         fastening method       -         • S7-1500 rail mounting       Yes         product features, product functions, product components / general       -         number of units       -	module format	Compact module S7-1500 single width
depth     129 mm       net weight     0.27 kg       fastening method     • S7-1500 rail mounting       ves     Yes   product features, product functions, product components / general number of units	width	35 mm
net weight     0.27 kg       fastening method     • S7-1500 rail mounting       Yes       product features, product functions, product components / general       number of units	height	142 mm
fastening method     • S7-1500 rail mounting     Yes       product features, product functions, product components / general       number of units	depth	129 mm
• S7-1500 rail mounting Yes product features, product functions, product components / general number of units	net weight	0.27 kg
product features, product functions, product components / general number of units	fastening method	
number of units	S7-1500 rail mounting	Yes
	product features, product functions, product components	/ general
• per CPU / maximum 8	number of units	
	• per CPU / maximum	8

• note	depending on CPU type		
performance data / PROFIBUS DP			
service / as DP master			
• DPV1	Yes		
number of DP slaves			
• on DP master / operable	32		
data volume			
<ul> <li>of the address range of the inputs / as DP master / total</li> </ul>	2048 byte		
<ul> <li>of the address range of the outputs / as DP master / total</li> </ul>	2048 byte		
<ul> <li>of the address range of the inputs / per DP slave</li> </ul>	244 byte		
<ul> <li>of the address range of the outputs / per DP slave</li> </ul>	244 byte		
service / as DP slave			
• DPV0	Yes		
• DPV1	Yes		
data volume			
<ul> <li>of the address range of the inputs / as DP slave / total</li> </ul>	240 byte		
<ul> <li>of the address range of the outputs / as DP slave / total</li> </ul>	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	ηα		
configuration software			
• required	STEP 7 Professional V12 SP1 (TIA Portal) or higher		
identification & maintenance function			
<ul> <li>I&amp;M0 - device-specific information</li> </ul>	Yes		
<ul> <li>I&amp;M1 – higher level designation/location designation</li> </ul>	Yes		
product functions / diagnostics			
product function / web-based diagnostics	Yes; via S7-1500 CPU		
product functions / time			
•	Vee		
product function / pass on time synchronization Yes			
standards, specifications, approvals / hazardous environments			
certificate of suitability / CCC / for hazardous zone according to GB standard	Yes		
further information / internet-Links			
Internet-Link			
<ul> <li>to web page: selection aid TIA Selection Tool</li> </ul>	http://www.siemens.com/tia-selection-tool		
<ul> <li>to website: Industrial communication</li> </ul>	http://www.siemens.com/simatic-net		
<ul> <li>to website: Industry Mall</li> </ul>	https://mall.industry.siemens.com		
<ul> <li>to website: Information and Download Center</li> </ul>	http://www.siemens.com/industry/infocenter		
<ul> <li>to website: Image database</li> </ul>	http://automation.siemens.com/bilddb		
<ul> <li>to website: CAx-Download-Manager</li> </ul>	http://www.siemens.com/cax		
<ul> <li>to website: Industry Online Support</li> </ul>	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		

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