# SIEMENS

**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. |

| Technical Product Detail Page | https://i.siemens.com/1P6GK7542-5FX10-0XE0 |
|---|---|
| **transfer rate** | |
| 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 | |
| ● 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 |

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| fastening method | |
| ● S7-1500 rail mounting | Yes |
| **product features, product functions, product components / general** | |
| 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 devices | |
| ● on DP master / operable | 32 |
| 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 device | 244 byte |
| ● of the address range of the outputs / per DP device | 244 byte |
| service / as DP device | |
| ● DPV0 | Yes |
| ● DPV1 | Yes |
| data volume | |
| ● of the address range of the inputs / as DP device / total | 240 byte |
| ● of the address range of the outputs / as DP device / 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 function / is supported / identification link | Yes; acc. to IEC 61406-1:2022 |
| **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** | |
| certificate of suitability / CE marking | Yes |
| certificate of suitability / UKCA marking | Yes |
| certificate of suitability / cULus approval | Yes |
| certificate of suitability / KC approval | Yes |
| certificate of suitability / Regulatory Compliance Mark (RCM) | Yes |
| certificate of suitability / RoHS conformity | Yes |
| certificate of suitability / EAC approval | Yes |
| **standards, specifications, approvals / hazardous environments / header** | |
| certificate of suitability / ATEX | Yes |
| certificate of suitability / IECEx | Yes |
| certificate of suitability / ULhazloc approval | Yes |
| certificate of suitability / CCC / for hazardous zone according to GB standard | Yes |
| certificate of suitability / FM registration | Yes |
| **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 threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity 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 cybersecurity measures that may be implemented, please visit www.siemens.com/cybersecurity-industry. 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 Cybersecurity RSS Feed under https://www.siemens.com/cert. (V4.7) |

## Approvals / Certificates

| **General Product Approval** | | | | **EMV** | **For use in hazardous locations** |
|---|---|---|---|---|---|
| UKCA | CE EG-Konf. | China RoHS | RCM | KC | FM |

| **For use in hazardous locations** | **Environment** |
|---|---|
| CCC-Ex | EPD |

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| **last modified:** | 10/28/2025 |