

product type designation



Figure similar

TIM 4R-IE DNP3

spare part SIPLUS NET TIM 4R-IE DNP3 based on 6NH7803-4BA00-0AA0 with conformal coating, -25...+70 °C, TIM 4R-IE DNP3 communications module for SIMATIC S7-300, S7-400, PC; with two RS 232/RS 485 interfaces for DNP3 communication via classic wide area networks and two RJ45 interfaces for DNP3 communication via IP- based networks (WAN or LAN)

Technical Product Detail Page

<https://i.siemens.com/1P6AG1803-4BA00-7AA0>

transfer rate

| | |
|---|-----------------------|
| transfer rate | |
| <ul style="list-style-type: none"> for Industrial Ethernet | 10 ... 100 Mbit/s |
| <ul style="list-style-type: none"> according to RS 232 | 9600 ... 115200 bit/s |

interfaces

| | |
|--|--|
| number of interfaces / according to Industrial Ethernet | 2 |
| number of electrical connections | |
| <ul style="list-style-type: none"> for external data transmission / according to RS 232 | 2 |
| <ul style="list-style-type: none"> for power supply | 1 |
| type of electrical connection | |
| <ul style="list-style-type: none"> of Industrial Ethernet interface | RJ45 port |
| type of electrical connection | |
| <ul style="list-style-type: none"> at interface 1 / for external data transmission at interface 2 / for external data transmission for power supply | 9 pin Sub-D-connector, RS232 switchable to RS485 9-pole D-sub connector, RS232 can be switched to RS485 2-pole plugable terminal block |
| design of the removable storage | |
| <ul style="list-style-type: none"> C-PLUG | Yes |

supply voltage, current consumption, power loss

| | |
|--|-----------------------------|
| type of voltage / of the supply voltage | DC |
| supply voltage | 24 V |
| supply voltage | 20.4 ... 28.8 V |
| supply voltage / external / at DC / rated value | 24 V |
| supply voltage / external / at DC / rated value | 20.4 ... 28.8 V |
| consumed current | |
| <ul style="list-style-type: none"> from backplane bus / at DC / at 24 V / maximum | 0.2 A |
| <ul style="list-style-type: none"> from external supply voltage / at DC / at 24 V / maximum | 0.17 A |
| power loss [W] | 4.6 W |
| product extension / optional / backup battery | Yes |
| type of battery | Lithium AA / 3.6 V / 2.3 Ah |
| backup current | |
| <ul style="list-style-type: none"> typical | 100 µA |
| <ul style="list-style-type: none"> maximum | 160 µA |

ambient conditions

| | |
|--|----------------|
| ambient temperature | |
| <ul style="list-style-type: none"> during operation | -25 ... +70 °C |
| <ul style="list-style-type: none"> during storage | -40 ... +70 °C |
| <ul style="list-style-type: none"> during transport | -40 ... +70 °C |

| | |
|---|--|
| installation altitude / at height above sea level / maximum | 5000 m |
| ambient condition / relating to ambient temperature - air pressure - installation altitude | Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax - 20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m) |
| relative humidity <ul style="list-style-type: none"> with condensation / according to IEC 60068-2-38 / maximum | 100 %; RH including condensation/frost (no commissioning when condensation is present), horizontal installation |
| chemical resistance / to commercially available cooling lubricants | Yes; incl. airborne diesel and oil droplets |
| resistance to biologically active substances <ul style="list-style-type: none"> conformity according to EN 60721-3-3 conformity according to EN 60721-3-6 | Yes; Class 3B2 mold and fungal spores (excluding fauna), Class 3B3 on request Yes; Class 6B2 mold, fungal and dry rot spores (excluding fauna) |
| resistance to chemically active substances <ul style="list-style-type: none"> conformity according to EN 60721-3-3 conformity according to EN 60721-3-6 | Yes; Class 3C4 (RH < 75 %) incl. salt spray in accordance with EN 60068-2-52 (Severity 3). The supplied plug covers must remain in place on the unused interfaces during operation. Yes |
| resistance to mechanically active substances <ul style="list-style-type: none"> conformity according to EN 60721-3-3 conformity according to EN 60721-3-6 | Yes; Class 3S4 incl. sand, dust. The supplied plug covers must remain in place over the unused interfaces during operation. Yes; Class 6S3 incl. sand, dust. The supplied plug covers must remain in place over the unused interfaces during operation. |
| coating / for equipped printed circuit board / according to EN 61086 | Yes; Class 2 for high availability |
| type of coating / protection against pollution according to EN 60664-3 | Yes; Protection of the type 1 |
| type of test / of the coating / according to MIL-I-46058C | Yes; Coating discoloration during service life possible |
| product conformity / of the coating / Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A | Yes; Conformal coating, class A |
| protection class IP | IP20 |
| design, dimensions and weights | |
| module format | Compact module S7-300 double width |
| width | 80 mm |
| height | 125 mm |
| depth | 120 mm |
| net weight | 0.4 kg |
| product features, product functions, product components / general | |
| number of units <ul style="list-style-type: none"> note | Number of TIMs per S7-300 / S7-400: 1 |
| wire length <ul style="list-style-type: none"> with RS 232 interface / maximum with RS 485 interface / maximum | 6 m 30 m |
| performance data / S7 communication | |
| number of possible connections / for S7 communication <ul style="list-style-type: none"> maximum with PG connections / maximum with OP connections / maximum | 5; only via LAN 2 1 |
| service <ul style="list-style-type: none"> PG/OP communication | Yes |
| performance data / telecontrol | |
| suitability for use <ul style="list-style-type: none"> node station substation TIM control center | Yes Yes Yes |
| protocol / is supported <ul style="list-style-type: none"> DNP3 Modbus RTU | Yes Yes |
| product function / data buffering if connection is aborted | Yes; 200,000 data points with one master |
| number of DNP3 masters <ul style="list-style-type: none"> for Ethernet / maximum with RS 232 interface / maximum | 8 1 |
| number of Modbus RTU slaves / maximum | 1 |

product functions / management, configuration, engineering

| | |
|--|-------------------|
| configuration software | |
| • required | SINAUT ST7 ES |
| storage location / of TIM configuration data | on the CPU or TIM |

product functions / time

| | |
|--|-----|
| product component / hardware real time clock | Yes |
| product feature / hardware real time clock w. battery backup | Yes |
| accuracy / of the hardware real time clock / per day / maximum | 4 s |
| time synchronization | |
| • from NTP-server | Yes |

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

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| 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) |
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Approvals / Certificates

General Product Approval

[Manufacturer Declaration](#)



[China RoHS](#)

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