SIEMENS

## Data sheet 6NH7803-4BA00-0AA0

**product type designation**

**TIM 4R-IE DNP3**

TIM 4R-IE DNP3 communications module for SIMATIC S7-300, S7-400, PC; with two RS232/RS485 Interfaces for DNP3- Communication via standard WAN networks and two RJ45 interfaces for DNP3 communication via IP-based networks (WAN or LAN).

| | |
|---|---|
| **transfer rate** | |
| transfer rate | |
| ● for Industrial Ethernet | 10 ... 100 Mbit/s |
| ● according to RS 232 | 9600 ... 115200 bit/s |
| **interfaces** | |
| number of interfaces / according to Industrial Ethernet | 2 |
| number of electrical connections | |
| ● for external data transmission / according to RS 232 | 2 |
| ● for power supply | 1 |
| type of electrical connection | |
| ● of Industrial Ethernet interface | RJ45 port |
| type of electrical connection | |
| ● at interface 1 / for external data transmission | 9 pin Sub-D-connector, RS232 switchable to RS485 |
| ● at interface 2 / for external data transmission | 9-pole D-sub connector, RS232 can be switched to RS485 |
| ● for power supply | 2-pole plugable terminal block |
| design of the removable storage | |
| ● 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 | |
| ● from backplane bus / at DC / at 24 V / maximum | 0.2 A |
| ● 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 | |
| ● typical | 100 µA |
| ● maximum | 160 µA |
| **ambient conditions** | |
| ambient temperature | |
| ● during operation | 0 ... 60 °C |
| ● during storage | -40 ... +70 °C |
| ● during transport | -40 ... +70 °C |
| relative humidity | |
| ● at 25 °C / without condensation / during operation / | 95 % |

| | |
|---|---|
| maximum | |
| 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 | |
| ● note | Number of TIMs per S7-300 / S7-400: 1 |
| wire length | |
| ● with RS 232 interface / maximum | 6 m |
| ● with RS 485 interface / maximum | 30 m |
| **performance data / S7 communication** | |
| number of possible connections / for S7 communication | |
| ● maximum | 5; only via LAN |
| ● with PG connections / maximum | 2 |
| ● with OP connections / maximum | 1 |
| service | |
| ● PG/OP communication | Yes |
| **performance data / telecontrol** | |
| suitability for use | |
| ● node station | Yes |
| ● substation | Yes |
| ● TIM control center | Yes |
| protocol / is supported | |
| ● DNP3 | Yes |
| ● SINAUT ST1 protocol | No |
| ● SINAUT ST7 protocol | No |
| ● Modbus RTU | Yes |
| product function / data buffering if connection is aborted | Yes; 200,000 data points with one master |
| number of DNP3 masters | |
| ● for Ethernet / maximum | 8 |
| ● with RS 232 interface / maximum | 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 function / is supported / identification link | Yes; acc. to IEC 61406-1:2022 |
| **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 |
| **standards, specifications, approvals** | |
| reference code | |
| ● according to IEC 81346-2:2019 | KEC |
| **further information / internet links** | |
| internet link | |
| ● 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 |

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## Approvals / Certificates

### General Product Approval


Declaration of Conformity





### EMV

KC

### For use in hazardous locations



FM

CCC-Ex


### Environment

Confirmation

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