SIEMENS

Data sheet 6NH7803-4BA00-0AA0

product type designation

TIM 4R-IE DNP3



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

product brand name	SIMATIC NET
Technical Product Detail Page	https://i.siemens.com/1P6NH7803-4BA00-0AA0
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

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● during transport	-40 ... +70 °C
relative humidity	
● at 25 °C / without condensation / during operation / maximum	95 %
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 devices / 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	
certificate of suitability / CE marking	Yes
certificate of suitability / UKCA marking	Yes
certificate of suitability / KC approval	Yes
certificate of suitability / Regulatory Compliance Mark (RCM)	Yes
certificate of suitability / RoHS conformity	Yes
standards, specifications, approvals / hazardous environments / header	
certificate of suitability / ATEX	Yes
certificate of suitability / IECEx	Yes

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certificate of suitability / ULhazloc approval	Yes
certificate of suitability / CCC / for hazardous zone according to GB standard	Yes
certificate of suitability / FM registration	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

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

Declaration of Conformity | China RoHS | Manufacturer Declaration

General Product Approval				EMV	For use in hazardous locations
	China RoHS				

For use in hazardous locations

FM | CCC-Ex

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