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 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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Approvals / Certificates

General Product Approval

CE EG-Konf.	Declaration of Conformity	UKCA	CCC	UL	RCM

EMV	For use in hazardous locations				
KC	ATEX	IECEx	FM	CCC-Ex	UL

Environment

Confirmation

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