

Product type designation

TIM 4R-IE DNP3

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



Transfer rate

Transfer rate

- for Industrial Ethernet
- acc. to RS 232

10 ... 100 Mbit/s
9600 ... 115200 bit/s

Interfaces

Number of interfaces / acc. to Industrial Ethernet

2

Number of electrical connections

- for external data transmission / acc. to RS 232
- for power supply

2

1

Type of electrical connection

- of Industrial Ethernet interface
- at interface 1 / for external data transmission
- at interface 2 / for external data transmission
- for power supply

RJ45 port
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 / 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 / maximum	95 %
Protection class IP	IP20
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
• with PG connections / maximum	2
• with OP connections / maximum	1
• Note	only via LAN

Service	
<ul style="list-style-type: none"> • PG/OP communication 	Yes
Performance data / PROFINET CBA	
Suitability for use	
<ul style="list-style-type: none"> • Node station 	Yes
<ul style="list-style-type: none"> • substation 	Yes
<ul style="list-style-type: none"> • TIM control center 	Yes
Protocol / is supported	
<ul style="list-style-type: none"> • DNP3 	Yes
<ul style="list-style-type: none"> • SINAUT ST1 protocol 	No
<ul style="list-style-type: none"> • SINAUT ST7 protocol 	No
<ul style="list-style-type: none"> • Modbus RTU 	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 	8
<ul style="list-style-type: none"> • with RS 232 interface / maximum 	1
Number of Modbus RTU slaves / maximum	1
Product functions / management, configuration, engineering	
Configuration software	
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • from NTP-server 	Yes
Further information / Internet-Links	
Internet-Link	
<ul style="list-style-type: none"> • to website: Selector SIMATIC NET SELECTION TOOL 	http://www.siemens.com/snst
<ul style="list-style-type: none"> • to website: Industrial communication 	http://www.siemens.com/simatic-net
<ul style="list-style-type: none"> • to website: Industry Mall 	https://mall.industry.siemens.com
<ul style="list-style-type: none"> • to website: Information and Download Center 	http://www.siemens.com/industry/infocenter
<ul style="list-style-type: none"> • to website: Image database 	http://automation.siemens.com/bilddb
<ul style="list-style-type: none"> • to website: CAx Download Manager 	http://www.siemens.com/cax
<ul style="list-style-type: none"> • to website: Industry Online Support 	https://support.industry.siemens.com
Security information	

Security information

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