

### 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)



### Transmission 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

#### Permitted 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

#### Design, dimensions and weight

Module format	Compact module S7-300 double width
Width	80 mm
Height	125 mm
Depth	120 mm
Net weight	0.4 kg

#### Product properties, functions, 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	
• 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
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: Selector SIMATIC NET SELECTION TOOL	<a href="http://www.siemens.com/snst">http://www.siemens.com/snst</a>
• to website: Industrial communication	<a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a>
• to website: Industry Mall	<a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a>
• to website: Information and Download Center	<a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a>
• to website: Image database	<a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a>
• to website: CAx Download Manager	<a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a>
• to website: Industry Online Support	<a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>

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