

## 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).

Technical Product Detail Page

<https://i.siemens.com/1P6NH7803-4BA00-0AA0>

### transfer rate

#### transfer rate

- for Industrial Ethernet
- according to RS 232

10 ... 100 Mbit/s

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	95 %
• at 25 °C / without condensation / during operation / maximum	
protection class IP	IP20
<b>design, dimensions and weights</b>	
module format	Compact module S7-300 double width
width	80 mm
height	125 mm
depth	120 mm
net weight	0.4 kg
<b>product features, product functions, product components / general</b>	
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
<b>performance data / S7 communication</b>	
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
<b>performance data / telecontrol</b>	
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
<b>product functions / management, configuration, engineering</b>	
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
<b>product functions / time</b>	
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
<b>standards, specifications, approvals</b>	
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
<b>standards, specifications, approvals / hazardous environments / header</b>	
certificate of suitability / ATEX	Yes
certificate of suitability / IECEx	Yes
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
- to web page: selection aid TIA Selection Tool
- to website: Industrial communication
- to web page: SiePortal
- to website: Image database
- to website: CAx-Download-Manager
- to website: Industry Online Support

<https://support.industry.siemens.com/cs/ww/en/view/109766358>  
<https://www.siemens.com/tstcloud>  
<https://www.siemens.com/simatic-net>  
<https://sieportal.siemens.com/>  
<https://www.automation.siemens.com/bilddb>  
<https://siemens.com/cax>  
<https://support.industry.siemens.com>

#### security information

##### security information

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#### Approvals / Certificates

##### General Product Approval



[Declaration of Conformity](#)



[China RoHS](#)



General Product Approval	EMV	For use in hazardous locations
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[KC](#)



ATEX



IECEEx

[FM](#)

[CCC-Ex](#)

##### For use in hazardous locations



last modified:

1/8/2026