SIEMENS

Data sheet   **6NH7803-4BA00-0AA0**

TIM 4R-IE DNP3 COMMUNICATIONS MODULE FOR SIMATIC S7-300, S7-400, PC; WITH TWO RS232/RS485- INTERFACE FOR DNP3- COMMUNICATION VIA CLASSIC WAN NETWORKS AND TWO RJ45-INTERFACES FOR DNP3-COMMUNICATION VIA IP-BASED NETWORK (WAN OR LAN)

Transmission rate

Transfer rate	
• for Industrial Ethernet	10 ... 100 Mbit/s
• acc. to RS 232	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	2
• for power supply	1
Type of electrical connection	
• of Industrial Ethernet interface	RJ45 port
• 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
Consumed current	
• from backplane bus / for DC / at 24 V / maximum	0.2 A
• from external supply voltage / for DC / at 24 V / maximum	0.17 A

Active power loss	4.6 W
Product expansion / 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
Cable 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	

• TCP/IP	Yes
• DNP3	Yes
• SINAUT ST1 protocol	No
• SINAUT ST7 protocol	No
• Modbus RTU	Yes
Product function / data buffering if connection is aborted	Yes
• Note	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

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 property / 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	http://www.siemens.com/snst
• to website: Industrial communication	http://www.siemens.com/simatic-net
• to website: Industry Mall	https://mall.industry.siemens.com
• to website: Information and Download Center	http://www.siemens.com/automation/net/catalog
• to website: Image database	http://automation.siemens.com/bilddb
• to website: CAx Download Manager	http://www.siemens.com/cax
• to website: Industry Online Support	https://support.industry.siemens.com

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