

product type designation



Figure similar

TIM 4R-IE

SINAUT ST7, TIM 4R-IE communications module for SIMATIC S7-300, S7-400, PC; with two RS232/RS485 interfaces for SINAUT Communication via standard WAN networks and two RJ45 interfaces for SINAUT communication via IP-based networks (WAN or LAN).

transfer rate	
transfer rate	
• for Industrial Ethernet	10 ... 100 Mbit/s
• according to RS 232	50 ... 38400 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 / maximum	95 %
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 TIM 4R-IE per S7-300/S7-400: multiple, number depends on the connection resources of the CPU
wire length - with RS 232 interface / maximum - with RS 485 interface / maximum	6 m 30 m
performance data / S7 communication	
number of possible connections / for S7 communication - maximum - with PG connections / maximum - with OP connections / maximum	64 2 62
service - SINAUT ST7 via S7 communication - PG/OP communication	Yes Yes
performance data / multi-protocol mode	
number of active connections / with multi-protocol mode	128
performance data / telecontrol	
suitability for use - node station - substation - TIM control center	Yes Yes Yes
protocol / is supported - DNP3 - SINAUT ST1 protocol - SINAUT ST7 protocol	No Yes Yes
product function / data buffering if connection is aborted	Yes; 56,000 data messages
storage capacity - of S7 CPU work memory / for TD7onCPU mode data blocks on CPU / required - of S7 CPU work memory / for TD7onTIM mode data blocks on TIM / required - note	20 Kibyte 0 Kibyte TD7onCPU: at least 20 KB, actual requirement determined by data volume and functional scope TD7onTIM: 0 bytes in most favorable case
product feature / buffered message frame memory	Yes
transmission format - for SINAUT ST1 protocol with polling / 11 bit - for SINAUT ST1 protocol with spontaneous / 10-bit or 11-bit - for SINAUT ST7 protocol with multi-master polling / 10-bit - for SINAUT ST7 protocol with polling or spontaneous / 10-bit or 11-bit	Yes Yes Yes Yes
operating mode for scanning of data transmission - with dedicated line/radio link / with SINAUT ST1 protocol - with dedicated line/radio link / with SINAUT ST7 protocol - with dial-up network / with SINAUT ST1 protocol - with dial-up network / with SINAUT ST7 protocol	Polling, polling with time slot procedure Polling, polling with time slot procedure, multi-master polling with time slot procedure spontaneous spontaneous
hamming distance - for SINAUT ST1 protocol - for SINAUT ST7 protocol	4 4
product functions / management, configuration, engineering	
configuration software	

• required • for CPU configuring / required / SINAUT TD7 block library for CPU • for PG configuring / required / SINAUT ST7 configuration software for PG	SINAUT ST7 ES Yes Yes
storage location / of TIM configuration data	on internal TIM flash memory, or on TIM in optional C-PLUG, or on MMC of the S7-300 CPU if TIM installed in S7-300 controller
product functions / security	
operating mode / Virtual Private Network (VPN)	Yes
type of authentication / with Virtual Private Network / PSK	Yes
product function	
• password protection for VPN • MSC client via GPRS modem with MSC capability	Yes Yes
protocol	
• is supported / MSC protocol • with Virtual Private Network MSC / is supported	Yes TCP/IP
key length / for MSC / with Virtual Private Network	128 bit
number of possible connections	
• as MSC client / with VPN connection • as MSC server / with VPN connection	1 128
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 / hazardous environments	
certificate of suitability / CCC / for hazardous zone according to GB standard	Yes; GB3836.1, GB3836.8
certificate of suitability / CCC / for hazardous zone according to GB standard / as marking	Ex nA IIC T4 Gc
further information / internet links	
internet link	
• to website: Image database • to website: Industry Online Support	https://www.automation.siemens.com/bilddb https://support.industry.siemens.com
security information	
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General Product Approval	
Manufacturer Declaration	Declaration of Conformity
	
EG-Konf.	
	
UL	RCM
EMV	For use in hazardous locations

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