

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	
<ul style="list-style-type: none"> for Industrial Ethernet 	10 ... 100 Mbit/s
<ul style="list-style-type: none"> according to RS 232 	50 ... 38400 bit/s
interfaces	
number of interfaces / according to Industrial Ethernet	2
number of electrical connections	
<ul style="list-style-type: none"> for external data transmission / according to RS 232 	2
<ul style="list-style-type: none"> for power supply 	1
type of electrical connection	
<ul style="list-style-type: none"> of Industrial Ethernet interface 	RJ45 port
type of electrical connection	
<ul style="list-style-type: none"> at interface 1 / for external data transmission 	9 pin Sub-D-connector, RS232 switchable to RS485
<ul style="list-style-type: none"> at interface 2 / for external data transmission 	9-pole D-sub connector, RS232 can be switched to RS485
<ul style="list-style-type: none"> for power supply 	2-pole plugable terminal block
design of the removable storage	
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> from backplane bus / at DC / at 24 V / maximum 	0.2 A
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> typical 	100 µA
<ul style="list-style-type: none"> maximum 	160 µA
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> during operation 	0 ... 60 °C
<ul style="list-style-type: none"> during storage 	-40 ... +70 °C
<ul style="list-style-type: none"> during transport 	-40 ... +70 °C
relative humidity	

<ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> note 	Number of TIM 4R-IE per S7-300/S7-400: multiple, number depends on the connection resources of the CPU
wire length <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> maximum with PG connections / maximum with OP connections / maximum 	64 2 62
service <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> node station substation TIM control center 	Yes Yes Yes
protocol / is supported <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> for SINAUT ST1 protocol for SINAUT ST7 protocol 	4 4
product functions / management, configuration, engineering	
configuration software	

<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • password protection for VPN 	Yes
<ul style="list-style-type: none"> • MSC client via GPRS modem with MSC capability 	Yes
protocol	
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • from NTP-server 	Yes
standards, specifications, approvals / hazardous environments	
certificate of suitability / CCC / for hazardous zone according to GB standard	Yes
<ul style="list-style-type: none"> • as marking 	Ex nA IIC T4 Gc
further information / internet links	
internet link	
<ul style="list-style-type: none"> • to web page: selection aid TIA Selection Tool • to website: Industrial communication • to website: Industry Mall • to website: Information and Download Center • to website: Image database • to website: CAX-Download-Manager • to website: Industry Online Support 	http://www.siemens.com/tia-selection-tool http://www.siemens.com/simatic-net https://mall.industry.siemens.com http://www.siemens.com/industry/infocenter http://automation.siemens.com/bilddb http://www.siemens.com/cax https://support.industry.siemens.com
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