

### Product type designation

### TIM 3V-IE Advanced

SINAUT ST7, TIM 3V-IE advanced communication module for SIMATIC S7-300 with an RS232 interface for SINAUT communication via a classic WAN and an RJ45 interface for SINAUT communication via an IP-based network (WAN or LAN)



### Transfer rate

Transfer rate	
<ul style="list-style-type: none"> <li>for Industrial Ethernet</li> </ul>	10 ... 100 Mbit/s
<ul style="list-style-type: none"> <li>acc. to RS 232</li> </ul>	50 ... 38400 bit/s

### Interfaces

Number of interfaces / acc. to Industrial Ethernet	1
Number of electrical connections	
<ul style="list-style-type: none"> <li>for external data transmission / acc. to RS 232</li> </ul>	1
<ul style="list-style-type: none"> <li>for power supply</li> </ul>	1
Type of electrical connection	
<ul style="list-style-type: none"> <li>of Industrial Ethernet interface</li> </ul>	RJ45 port
<ul style="list-style-type: none"> <li>at interface 1 / for external data transmission</li> </ul>	9 pin Sub-D-connector (RS232)
<ul style="list-style-type: none"> <li>for power supply</li> </ul>	2-pole plugable terminal block
design of the removable storage / C-PLUG	No

### 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
Relative symmetrical tolerance / at DC	
• at 5 V	5 %
Relative positive tolerance / at DC / at 24 V	5 %
Relative negative tolerance / at DC / at 24 V	5 %
Consumed current	
• from backplane bus / at DC / at 24 V / maximum	0.2 A
• from external supply voltage / at DC / at 24 V / maximum	0.2 A
Power loss [W]	5.8 W
Product extension / optional / Backup battery	No

### 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
Module format	Compact module S7-300 single width
Width	40 mm
Height	125 mm
Depth	120 mm
Net weight	0.25 kg

### Product features, product functions, product components / general

Number of units	
• Note	Number of TIMs per S7-300: multiple, number depends on the connection resources of the S7-300 CPU
Wire length	
• with RS 232 interface / maximum	6 m

### Performance data / S7 communication

Number of possible connections / for S7 communication	
• maximum	24
• with PG connections / maximum	4
• with OP connections / maximum	20
Service	
• SINAUT ST7 via S7 communication	Yes

- PG/OP communication

Yes

### Performance data / multi-protocol mode

Number of active connections / with multi-protocol mode

24

### Performance data / PROFINET CBA

Suitability for use

- Node station
- substation
- TIM control center
- Note

Yes

Yes

Yes

RS232 and Industrial Ethernet can be operated in parallel

Protocol / is supported

- DNP3
- SINAUT ST1 protocol
- SINAUT ST7 protocol

No

Yes

Yes

Product function / data buffering if connection is aborted

Yes; 32,000 data messages

Storage capacity

- of S7 CPU RAM / for TD7onCPU mode data blocks on CPU / required
- of S7 CPU RAM / 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

No

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 4
- for SINAUT ST7 protocol 4

### Product functions / management, configuration, engineering

Configuration software	
<ul style="list-style-type: none"> <li>• required</li> </ul>	SINAUT ST7 ES
<ul style="list-style-type: none"> <li>• for CPU configuring / required / SINAUT TD7 block library for CPU</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• for PG configuring / required / SINAUT ST7 configuration software for PG</li> </ul>	Yes
Storage location / of TIM configuration data	on the TIM

### Product functions / Security

Suitability for operation / Virtual Private Network	Yes
Type of authentication / with Virtual Private Network / PSK	Yes
Product function	
<ul style="list-style-type: none"> <li>• password protection for VPN</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• MSC client via GPRS modem with MSC capability</li> </ul>	Yes
Protocol	
<ul style="list-style-type: none"> <li>• is supported / MSC protocol</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• with Virtual Private Network MSC / is supported</li> </ul>	TCP/IP
Key length / for MSC / with Virtual Private Network	128 bit
Number of possible connections	
<ul style="list-style-type: none"> <li>• as MSC client / with VPN connection</li> </ul>	1
<ul style="list-style-type: none"> <li>• as MSC server / with VPN connection</li> </ul>	0

### Further information / Internet-Links

Internet-Link	
<ul style="list-style-type: none"> <li>• to website: Selector SIMATIC NET SELECTION TOOL</li> </ul>	<a href="http://www.siemens.com/snst">http://www.siemens.com/snst</a>
<ul style="list-style-type: none"> <li>• to website: Industrial communication</li> </ul>	<a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a>
<ul style="list-style-type: none"> <li>• to website: Industry Mall</li> </ul>	<a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a>
<ul style="list-style-type: none"> <li>• to website: Information and Download Center</li> </ul>	<a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a>
<ul style="list-style-type: none"> <li>• to website: Image database</li> </ul>	<a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a>
<ul style="list-style-type: none"> <li>• to website: CAx Download Manager</li> </ul>	<a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a>
<ul style="list-style-type: none"> <li>• to website: Industry Online Support</li> </ul>	<a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>

### Security information

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Security information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, solutions, machines, equipment and/or networks. They are important components in a holistic industrial security concept. With this in mind, Siemens' products and solutions undergo continuous development. Siemens recommends strongly that you regularly check for product updates. For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action (e.g. cell protection concept) and integrate each component into a holistic, state-of-the-art industrial security concept. Third-party products that may be in use should also be considered. For more information about industrial security, visit <http://www.siemens.com/industrialsecurity>. To stay informed about product updates as they occur, sign up for a product-specific newsletter. For more information, visit <http://support.automation.siemens.com>. (V3.4)

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