

Product type designation

RTU3030C
SIMATIC RTU3030C - COMPACT LOW POWER RTU; BATTERY-OR RECHARGE. BATTERY OPERAT.; EXT. CONNECT. POWER SUPPLY 10.8 V UP TO 28.8 V DC; INTEGRATED UMTS- MODEM; CONNECT. TO TELECONTROL SERVER BASIC; DNP3 AND IEC60870-5-104 PROTOCOLS; ONBOARD I/O: 8DI, 4DO, 4AI; LOCAL ETHERNET-PORT; CONFIG./ DIAG. PER WEB-INTERFACE; CLOCK SYNCHRONISATION; SMS/E-MAIL; SD-CARD SLOT; PLEASE NOTE NATIONAL APPROVALS!



Figure similar

Operating mode	Standby mode (Sleep mode), Actualization mode, Communication mode
Transmission rate	
Transfer rate	
• for Industrial Ethernet	10 ... 100 Mbit/s
• for GPRS transmission	
— with downlink / maximum	85.6 kbit/s
— with uplink / maximum	85.6 kbit/s
• with UMTS transmission	
— with downlink / maximum	42 Mbit/s
— with uplink / maximum	5.76 Mbit/s
Interfaces	
Number of interfaces / acc. to Industrial Ethernet	1
Number of electrical connections	
• at the 1st interface / acc. to Industrial Ethernet	1
• for external antenna(s)	1

• for power supply	1
Number of slots	
• for SIM cards	1
• for memory cards	1
Type of electrical connection	
• at the 1st interface / acc. to Industrial Ethernet	RJ45 port
• for external antenna(s)	SMA socket (50 ohms)
• for power supply	5-pole plugable terminal block
Type of antenna	
• at port 1 / connectable	mobile communications antenna (GSM/UMTS)
Interface design 1 / Note	local connection only
Slot version	
• for SIM card	Mini SIM card, with adapter Micro SIM card also
• of the memory card	SD 1.0, SD 1.1, SDHC, Siemens SMC
Storage capacity / of the memory card / maximum	32 Gbyte
design of the removable storage / C-PLUG	No

Signal-Inputs/outputs

Number of electrical connections / for digital input signals	8
Type of electrical connection / for digital input signals	pluggable screw terminal block
Digital input version	Suitable for open-drain transistor or switch, 2-wire-technique
Number of electrical connections / as counter inputs / for digital input signals	2
Pulse duration / at counter input / minimum	0.1 ms
Pulse frequency / at counter input / maximum	5000 Hz
Number of electrical connections / for digital output signals	4
Type of electrical connection / for digital output signals	pluggable screw terminal block
Digital output version	bistable relay, 2-wire-technique
Output current / at digital output	300 mA; Limiting continuous current
Number of analog inputs / Integrated	4
Connector type / at the analog input	pluggable screw terminal block
Type of analog input	2-/3-/4-wire-technique
Product function / parameterizable analog inputs	Yes; Current 0/4..20mA, Voltage 0..5/10V, Temperature (Pt1000) -80..+140°C
A/D resolution / at the analog input	12 bit

Wireless technology

Type of mobile wireless service	
• is supported / SMS	Yes
• is supported / GPRS	Yes
• Note	GPRS (Multislot Class 10)
Type of mobile network / is supported	

• GSM	Yes
• UMTS	Yes
• LTE	No
Operating frequency	
• for GSM transmission / 850 MHz	Yes
• for GSM transmission / 900 MHz	Yes
• for GSM transmission / 1800 MHz	Yes
• for GSM transmission / 1900 MHz	Yes
• with UMTS transmission / 900 MHz	Yes
• with UMTS transmission / 2100 MHz	Yes

Supply voltage, current consumption, power loss

Type of voltage / of the supply voltage	DC
Supply voltage / external / at DC / Rated value	12 ... 24 V
Supply voltage / external / at DC / rated value	10.8 ... 28.8 V
Type of output voltage / for the supply of external devices	DC 12 V or 24 V
Consumed current / Note	without connected consumers
Consumed current	
• from external supply voltage / at 24 V DC	
— in standby mode / typical	14 mA
— in update mode / typical	35 mA
— in communication mode / typical	83 mA
• with battery operation / at 7.2 V DC	
— in standby mode / typical	0.25 mA
— in update mode / typical	65 mA
— in communication mode / typical	192 mA
Power loss [W] / Note	without connected consumers
Power loss [W] / with external supply voltage / at 24 V DC	
• in standby mode / typical	0.34 W
• in update mode / typical	0.85 W
• in communication mode / typical	2 W
Power loss [W] / with battery operation / at 7.2 V DC	
• in standby mode / typical	0.002 W
• in update mode / typical	0.51 W
• in communication mode / typical	1.5 W

Permitted ambient conditions

Ambient temperature	
• for vertical installation / during operation	-40 ... +60 °C
• for horizontally arranged busbars / during operation	-40 ... +70 °C

• during storage	-40 ... +70 °C
• during transport	-40 ... +70 °C
Relative humidity / at 30 °C / without condensation / during operation / maximum	95 %
Protection class IP	IP20; IP68 with protective housing (see accessories)

Design, dimensions and weight

Module format	Compact module
Width	130 mm
Height	100 mm
Depth	75 mm
Net weight	0.37 kg
Mounting type	
• 35 mm DIN rail mounting	Yes
• wall mounting	Yes

Performance data

Number of users/telephone numbers / definable / maximum	20
Number of user groups / definable / maximum	10
Number of program block types	30
Number of configurable program blocks	32

Performance data / IT functions

Number of possible connections	
• as server / by means of HTTP / maximum	2
• as e-mail client / maximum	1
Number of free texts for e-mails / definable by user	20; maximum of 160 characters per user defined text
Number of entries / in the e-mail buffer / maximum	12
Storage capacity / of the user memory	
• as flash memory file system	8192 Mibyte

Performance data / telecontrol

Suitability for use	
• Node station	No
• substation	Yes
• TIM control center	No
Control center connection	control center with IEC 60870-5, DNP3 function, TeleControl Server Basic
• by means of a permanent connection	supported
• by means of demand-oriented connection	supported
Protocol / is supported	
• TCP/IP	Yes
• DNP3	Yes
• IEC 60870-5	Yes

• SINAUT ST1 protocol	No
• SINAUT ST7 protocol	No
• Modbus RTU	No
Product function / data buffering if connection is aborted	Yes; at IEC: about. 5,000 telegrams, at DNP3: about 10,900 telegrams, at TeleControl Server Basic: about 9,300 telegrams
Amount of data / as user data per station / in telecontrol mode / maximum	256 Kibyte
Product feature / Buffered message frame memory	Yes

Performance data / Teleservice

Diagnostics function / online diagnostics with SIMATIC STEP 7	No
Product function	
• program download with SIMATIC STEP 7	No
• Remote firmware update	Yes
Configuration software	
• required	No, configuration by using the integrated webserver

Product functions / Diagnosis

Product function / Web-based diagnostics	Yes
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Product functions / Security

Suitability for operation / Virtual Private Network	Yes
Operating mode Virtual Private Network / note	OpenVPN-Client
Product function / with VPN connection	OpenVPN
Type of encryption algorithms / with VPN connection	AES-256, DES-168, BF (BlowFish)
Type of authentication procedure / with VPN connection	certificate based
Type of authentication / with Virtual Private Network / PSK	No
Type of hashing algorithms / with VPN connection	SHA-1, SHA-224, SHA-256
Number of possible connections / with VPN connection	2; one simultaneous productive connection only
Product function	
• password protection for Web applications	Yes
• password protection for teleservice access	Yes
• password protection for VPN	Yes
• encrypted data transmission	Yes
• switch-off of non-required services	Yes

Product functions / Time

Protocol / is supported	
• NTP	Yes
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	1.8 s
time synchronization	
• from NTP-server	Yes
• from control center	Yes
• from mobile network provider	Yes

Further Information / Internet Links

Internet-Link	
• 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/industry/infocenter
• 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

Security information

Security information	<p>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)</p>
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