

product type designation



RTU3010C

-- spare part -- SIMATIC RTU3010C compact low-power RTU; battery or solar-operated; connection of external power supply 10.8 V to 28.8 V DC; connection of external modems; connection to Telecontrol Server Basic; loadable protocols: DNP3, IEC 60870-5-104, SINAUT ST7 or MQTT; onboard I/Os: 8 DI, 4 DO, 4 AI; FTP client; configuration/diagnostics via web server; time synchronization; email; SD card slot;

product brand name	SIMATIC
operating mode	Standby mode (Sleep mode), Actualization mode, Communication mode
transfer rate	
transfer rate	
• for Industrial Ethernet	10 ... 100 Mbit/s
interfaces	
number of interfaces / according to Industrial Ethernet	1
number of electrical connections	
• at the 1st interface / according to Industrial Ethernet	1
• for power supply	1
number of slots	
• for memory cards	1
type of electrical connection	
• at the 1st interface / according to Industrial Ethernet	RJ45 port
type of electrical connection	
• for power supply	5-pole pluggable terminal block
slot version	
• 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	
<ul style="list-style-type: none"> • SMS • 	No over external, IP-based router
supply voltage, current consumption, power loss	
type of voltage / of the supply voltage	DC
supply voltage / external / at DC	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	
<ul style="list-style-type: none"> • from external supply voltage / at 24 V DC <ul style="list-style-type: none"> — in standby mode / typical — in update mode / typical — in communication mode / typical • with battery operation / at 7.2 V DC <ul style="list-style-type: none"> — in standby mode / typical — in update mode / typical — in communication mode / typical 	14 mA 35 mA 55 mA 0.28 mA 71 mA 125 mA
power loss [W]	without connected consumers
power loss [W] / with external supply voltage / at 24 V DC	
<ul style="list-style-type: none"> • in standby mode / typical • in update mode / typical • in communication mode / typical 	0.34 W 0.85 W 1.25 W
power loss [W] / with battery operation / at 7.2 V DC	
<ul style="list-style-type: none"> • in standby mode / typical • in update mode / typical • in communication mode / typical 	0.002 W 0.51 W 0.9 W
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> • for vertical installation / during operation • for horizontally arranged busbars / during operation • during storage • during transport 	-40 ... +60 °C -40 ... +70 °C -40 ... +70 °C -40 ... +70 °C
relative humidity	
<ul style="list-style-type: none"> • at 30 °C / without condensation / during operation / maximum 	95 %
protection class IP	IP20; IP68 with protective housing (see accessories)
design, dimensions and weights	
module format	Compact module
width	130 mm
height	100 mm
depth	75 mm
net weight	0.34 kg
fastening method	
<ul style="list-style-type: none"> • 35 mm DIN-rail mounting • wall mounting 	Yes Yes
product functions / cloud connectivity	
protocol / is supported	
<ul style="list-style-type: none"> • Message Queuing Telemetry Transport (MQTT) • HTTP 	Yes Yes
product function / for cloud connectivity	
<ul style="list-style-type: none"> • trigger management • time stamping 	Yes Yes
product feature / for cloud connectivity / buffered message frame memory	Yes
performance data	
number of users / email addresses / definable / maximum	20
number of user groups / definable / maximum	10

number of program block types	44
number of configurable program blocks	48
number of digital bit memories / maximum	48
number of analog bit memories / maximum	24
performance data / IT functions	
number of possible connections	
• as client / by means of FTP / maximum	1
number of entries / in the FTP buffer / maximum	12
number of possible connections	
• as server / by means of HTTP / maximum	2
• as server / by means of HTTPS / maximum	2; http and https can be combined (max. number of 2 connections cannot be exceeded).
• as email client / maximum	1
number of free texts / for emails and SMS / maximum	20
number of characters / per free text for emails or SMS / maximum	160
number of entries / in the email buffer / maximum	12
performance data / telecontrol	
suitability for use	
• node station	No
• substation	Yes
• TIM control center	No
control center connection	IEC 60870-5-104, DNP3-capable control stations, SINAUT ST7cc/sc, TeleControl Server Basic
• by means of a permanent connection	supported
• by means of demand-oriented connection	supported
protocol / is supported	
• DNP3	Yes
• IEC 60870-5	Yes
• SINAUT ST7 protocol	Yes
product function / data buffering if connection is aborted	Yes; number of telegrams for: IEC 60870: approx. 5,000, DNP3: approx. 10,900, SINAUT ST7: approx. 7,700, TeleControl Server Basic: approx. 10.900
data volume / 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
• remote configuration	Yes
product functions / management, configuration, engineering	
configuration software	
• required	No, configuration by using the integrated webserver
product function / gateway / for SIMATIC PDM	
• with Modbus TCP	Yes
• with HART-IP protocol	Yes
product functions / diagnostics	
product function / web-based diagnostics	Yes
product functions / security	
operating mode / Virtual Private Network (VPN)	Yes; OpenVPN client
product function / with VPN connection	OpenVPN
type of encryption algorithms / with VPN connection	AES-128, AES-256
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-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
- SysLog 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
• PC	Yes
• manual setting	Yes

standards, specifications, approvals / hazardous environments / header

certificate of suitability / CCC / for hazardous zone according to GB standard	Yes
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further information / internet links

internet link	
• to website: Selection guide for cables and connectors	https://support.industry.siemens.com/cs/ww/en/view/109766358
• to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud
• to website: Industrial communication	https://www.siemens.com/simatic-net
• to web page: SiePortal	https://sieportal.siemens.com/
• to website: Image database	https://www.automation.siemens.com/bilddb
• to website: CAx-Download-Manager	https://siemens.com/cax
• to website: Industry Online Support	https://support.industry.siemens.com

security information

security information	Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement - and continuously maintain - a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit www.siemens.com/cybersecurity-industry . Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under https://www.siemens.com/cert . (V4.7)
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Approvals / Certificates

General Product Approval

[Declaration of Conformity](#)

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General Product Approval For use in hazardous locations

[China RoHS](#)



[FM](#)

[CCC-Ex](#)



Environment



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