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Remote terminal and automation system for simple monitoring and controlling of systems in power grids

Product description

smartRTU AXC SG is a compact remote terminal unit (RTU). It incorporates a smartRTU technology platform which is a modular remote terminal solution for various fields of application around power grids. smartRTU was specially developed for monitoring and controlling distributor networks and the feed-in management of remote power generation plants. The software it uses enables consistent processing and provision of status and event time information for operations and investment optimization. This is realized thanks to default functions and simple parameterization via web interface, making programming knowledge and programs unnecessary.

The modular structure permits a wide range of binary and analog information to be input and output. The data is transmitted along several communication routes with the help of standardized remote control protocols such as IEC 60870-5-101/104 in the monitoring and control direction. In the process, current information security provisions are complied with.

The smartRTU can be optionally expanded by additional devices, e. g., short-circuit and ground fault indicators, via additional communication interfaces.

Your advantages

- Simple integration of application-specific measuring technology
- Fast and easy parameterization using an application-specific web interface
- Modular I/O system for simple installation and expansion
- Application-specific automation functions enable intelligent local substations and the connection of remote power plants
- Secure connection to higher-level control rooms via specific remote control technology communication protocols (e.g., in accordance with IEC IEC60870-5-101/104 and IEC 61850)
- Numerous protocols supported such as: http, https, FTP, SNTP, SNMP, IPsec, syslog
- Connection of grounding and short-circuit indicators

SMARTRTU AXC SG - Remote Terminal Unit



1110435

<https://www.phoenixcontact.com/us/products/1110435>

Commercial data

Item number	1110435
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	DRMBAA
GTIN	4063151026158
Weight per piece (including packing)	281.8 g
Weight per piece (excluding packing)	225.6 g
Country of origin	DE

Technical data

Notes

Note on application

Note on application	Only for industrial use
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Product properties

Product type	Communication module
Product family	Axioline F

Insulation characteristics

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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Electrical properties

Maximum power dissipation for nominal condition	max. 10.6 W
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Supply

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC
Residual ripple	± 5 %
Max. current consumption	442 mA
Typical current consumption	200 mA

Interfaces

Axioline F local bus

Number of interfaces	1
Connection method	Bus base module
Transmission speed	100 Mbps

Ethernet

Bus system	RJ45
Number of interfaces	2
Connection method	RJ45 jack
Note on the connection method	Auto negotiation and autocrossing
Transmission speed	10/100 Mbps (full duplex)
Transmission physics	Ethernet in RJ45 twisted pair
No. of channels	2
Protocols supported	HTTP
	HTTPS
	SFTP
	SNTP client/server
	SNMP
	IPsec
	syslog

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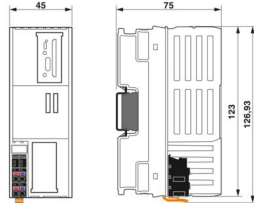


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	IEC 60870-5-101 client/server (via additional serial communication modules)
	IEC 60870-5-103 master (via additional serial communication modules)
	Modbus/RTU master (via additional serial communication modules)
	IEC 60870-5-104 client/server
	Modbus TCP Client
	IEC 61850 MMS + GOOSE

Dimensions

Dimensional drawing	
Width	45 mm
Height	126.93 mm
Depth	75 mm
Note on dimensions	The depth applies when a TH 35-7.5 DIN rail is used (in accordance with EN 60715).

Material specifications

Color (Housing)	gray (RAL 7042)
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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 60 °C up to 2000 m above mean sea level (observe derating)
	-25 °C ... 55 °C up to 3000 m above mean sea level (observe derating)
	≤ 55 °C (with max. 1 A on U _{Bus})
	> 55 °C ... 60 °C (only in conjunction with an Axioline F power module AXL F PWR 1H (Item no. 2688297))
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (according to DIN EN 61131-2)
Permissible humidity (storage/transport)	5 % ... 95 % (according to DIN EN 61131-2)
Shock (operation)	10g (Bump endurance test according to DIN EN 60068-2-27)
Vibration (operation)	5g
Air pressure (operation)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	58 kPa ... 106 kPa (up to 4500 m above mean sea level)

EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Conformance with EMC directives	Immunity test in accordance with EN 61000-6-2/IEC 61000-6-2 Electrostatic discharge (ESD)EN 61000-4-2/IEC 61000-4-2 Criterion B, ± 6 kV contact discharge, ± 8 kV air discharge
	Immunity test in accordance with EN 61000-6-2/IEC 61000-6-2 Electromagnetic fieldsEN 61000-4-3/IEC 61000-4-3 Criterion A, Field intensity: 10 V/m
	Immunity test in accordance with EN 61000-6-2/IEC 61000-6-2 Fast transients (burst)EN 61000-4-4/IEC 61000-4-4 Criterion B, ± 2 kV
	Immunity test in accordance with EN 61000-6-2/IEC 61000-6-2 Transient overvoltage (surge)EN 61000-4-5/IEC 61000-4-5 Criterion B, DC supply lines: ± 0.5 kV/ ± 0.5 kV (symmetrical/asymmetrical), fieldbus cable shield: ± 1 kV
	Immunity test in accordance with EN 61000-6-2/IEC 61000-6-2 Conducted interferenceEN 61000-4-6/IEC 61000-4-6 Criterion A, Test voltage 10 V
	Noise emission test in accordance with EN 61000-6-4/IEC 61000-6-4 Class A

Mounting

Mounting type	DIN rail mounting
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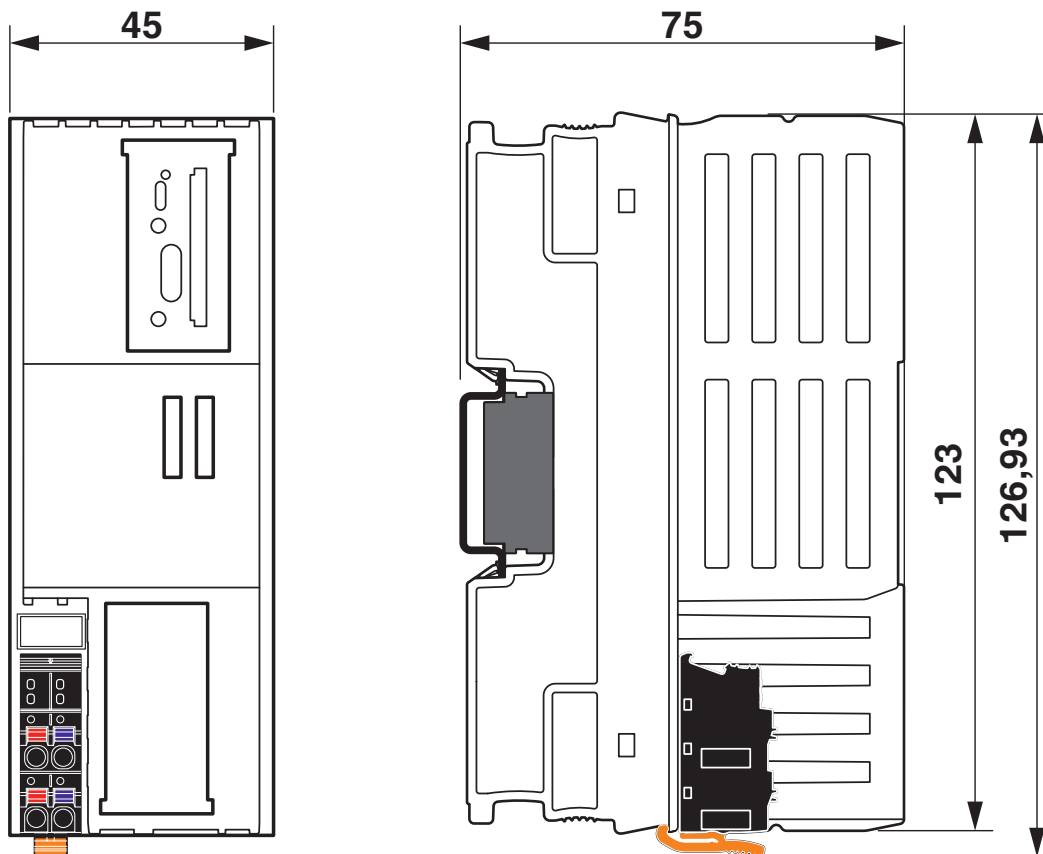


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Drawings

Dimensional drawing



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Classifications

ECLASS

ECLASS-13.0	27242208
ECLASS-15.0	27242208

ETIM

ETIM 10.0	EC001423
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UNSPSC

UNSPSC 21.0	32151700
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	59da87eb-bf9f-4baf-8490-62ffec020395

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