

Signaling system - TC MOBILE I/O X300 - 2903807

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Compact signaling system for mobile phone networks to monitor analog and digital values as well as to switch relay outputs remotely. Communication is via the ODP protocol to an ODP server using GPRS. Supply voltage range of 10 V ... 60 V DC.

Your advantages

- ✓ GPRS messaging system for remote control of outputs
- ✓ Alarm generation on voltage failure via SMS
- ✓ GSM mobile phone network: 850, 900, 1800, and 1900 MHz
- ✓ Communication via ODP protocol
- ✓ Data transmission either online or as historical values with time stamp
- ✓ Two analog inputs
- ✓ Configuration via USB and web browser
- ✓ Compact design also for domestic installations (4 HP, DIN 43880)
- ✓ Mounting on DIN rail or on the wall



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 768856
GTIN	4046356768856
Weight per Piece (excluding packing)	254.800 g
Custom tariff number	85176200
Country of origin	Germany

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	72 mm
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Dimensions

Height	90 mm
Depth	62 mm

Ambient conditions

Ambient temperature (operation)	-25 °C ... 70 °C (SMS mode only, note the derating information in the technical documentation for data connection)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	0 % ... 95 %
Altitude	2000 m
Degree of protection	IP20

General

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Net weight	254.8 g
Housing material	Polycarbonate
MTTF	591 Years (SN 29500 standard, temperature 25 °C, operating cycle 21 % (5 days a week, 8 hours a day))
	302 Years (SN 29500 standard, temperature 40 °C, operating cycle 34.25 % (5 days a week, 12 hours a day))
	125 Years (SN 29500 standard, temperature 40 °C, operating cycle 100 % (7 days a week, 24 hours a day))

Power supply

Supply voltage range	10 V DC ... 60 V DC
Max. current consumption	180 mA
Typical current consumption	140 mA (24 V DC)
Conductor cross section flexible max.	2.50 mm ²
Conductor cross section flexible min.	0.20 mm ²
Conductor cross section solid max.	2.50 mm ²
Conductor cross section solid min.	0.20 mm ²
Max. AWG conductor cross section, flexible	14
Min. AWG conductor cross section, flexible	24
Conductor cross section AWG max.	14
Conductor cross section AWG min.	24

Interfaces

Interface 1	USB 2.0
Connection method	Mini-USB type B, 5-pos.
Transmission length	≤ 3 m (only for configuration and diagnostics)

Wireless interface

Interface description	GSM / GPRS
Frequency	850 MHz (2 W (EGSM))
	900 MHz (2 W (EGSM))
	1800 MHz (1 W (EGSM))

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Wireless interface

	1900 MHz (1 W (EGSM))
GPRS	Multislot Class 10

Function

Web-based management	yes
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Digital outputs

Output name	Relay output
Number of outputs	4
Contact type	N/O contact
Minimum switching voltage	5 V
Maximum switching voltage	60 V DC
	30 V AC
Limiting continuous current	6 A
Switching capacity	100 W (Power Source PS2, $P_{out} \leq 100$ W)
Electrical service life	5000 cycles

Digital inputs

Description of the input	Digital input
Number of inputs	4
Switching threshold "0" signal in reference to U_N	≤ 0.3
Switching threshold "1" signal in reference to U_N	≥ 0.7

Analog inputs

Description of the input	Analog input
Number of inputs	2
Input signal	Current or voltage
Voltage input signal	0 V DC ... 60 V DC
Current input signal	0 mA ... 20 mA
	4 mA ... 20 mA (configurable)
Input impedance	600 k Ω (Voltage inputs)
	50 Ω (Current inputs)
Precision	± 0.1 %
Resolution	15 bit

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Standards/regulations	EN 61000-4-2
Contact discharge	± 6 kV
Indirect discharge	± 6 kV
Standards/regulations	EN 61000-4-3
Frequency range	26 MHz ... 6 GHz
Standards/regulations	EN 61000-4-4

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Standards and Regulations

Comments	Criterion B
Standards/regulations	EN 61000-4-5
Signal	± 1 kV (Data line, asymmetrical)
Standards/regulations	EN 61000-4-6
Frequency range	0.15 MHz ... 80 MHz
Conducted noise emission	Class B, area of application: Industry and residential
Standards/regulations	EN 50360
	EN 50121-4

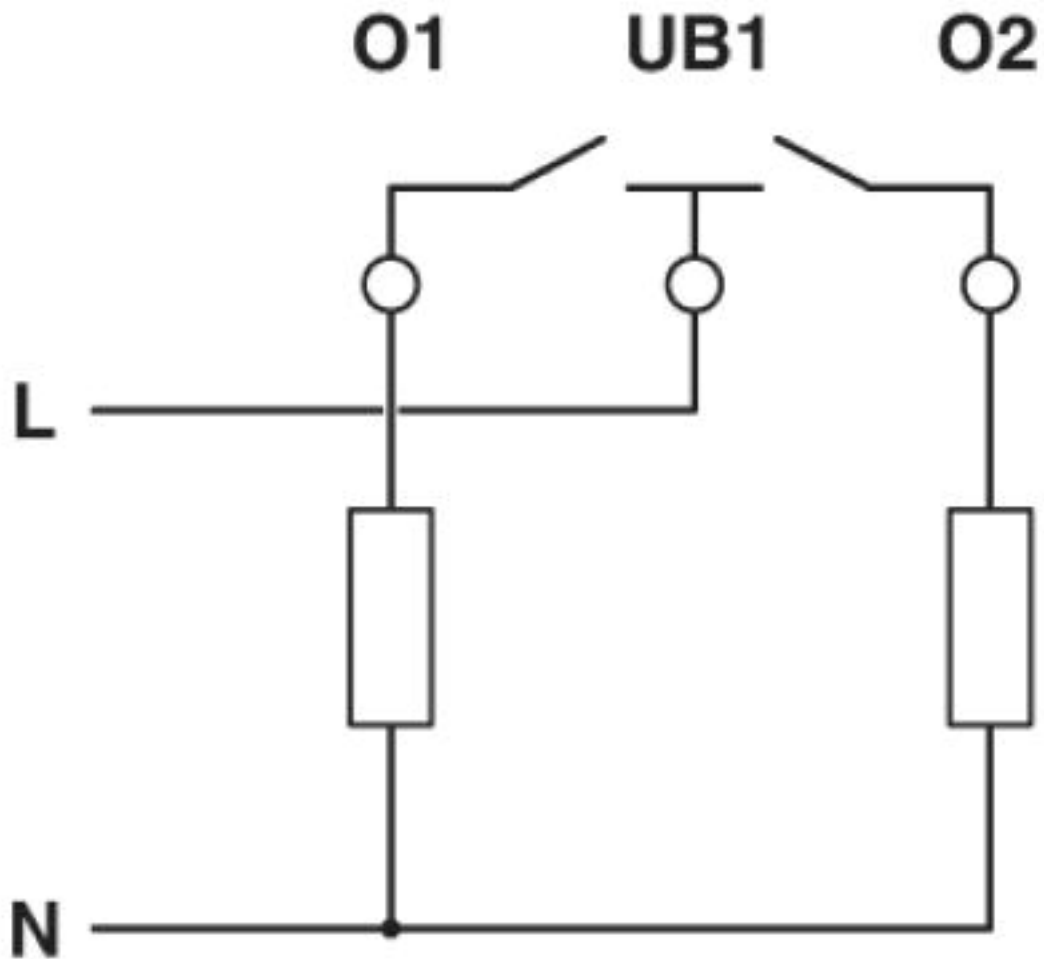
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

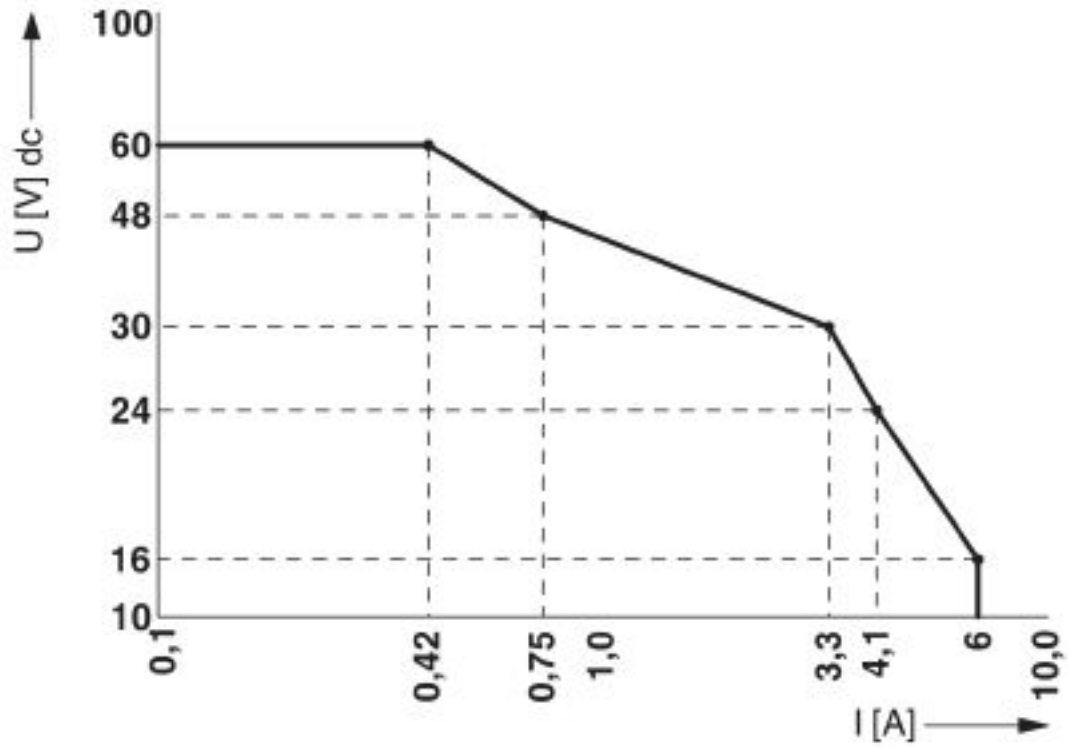
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Connection diagram



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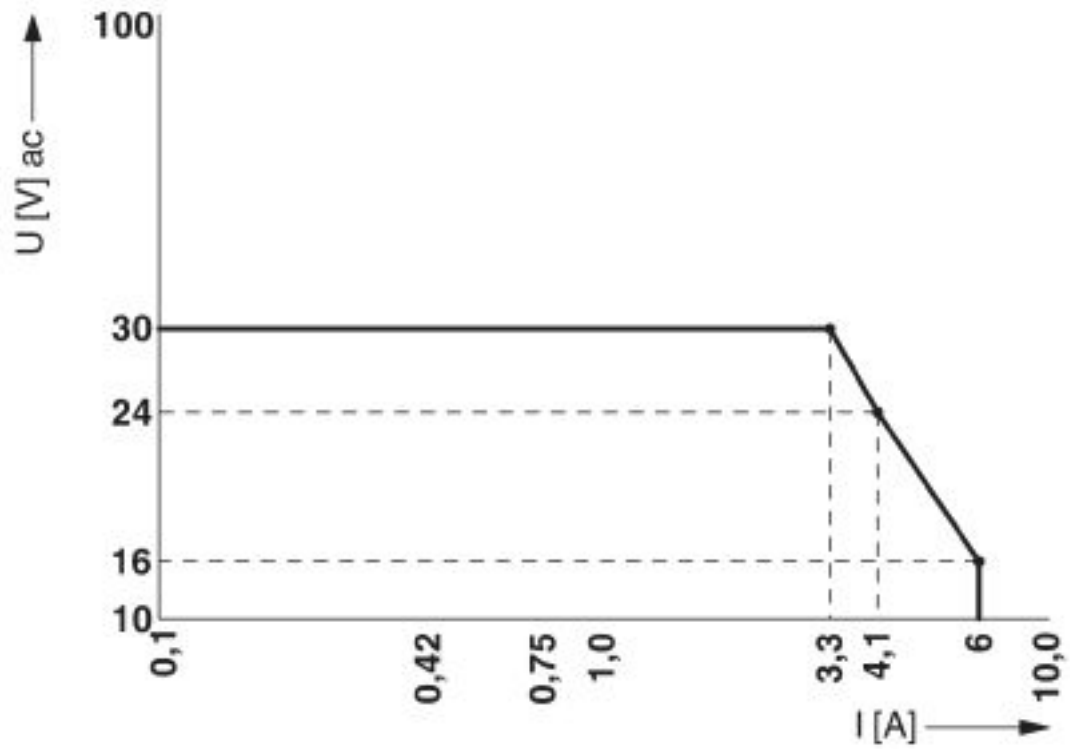
Diagram



Relay load curve DC

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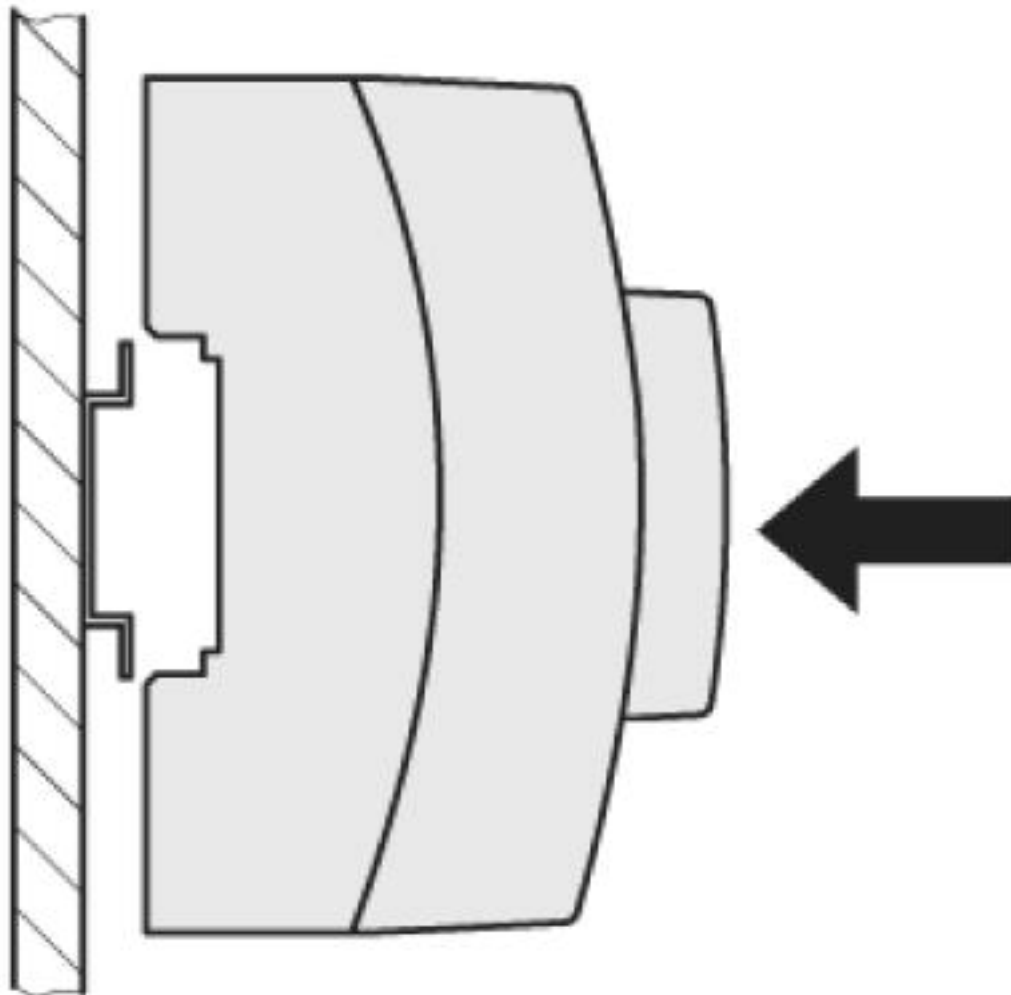
Diagram



Relay load curve AC

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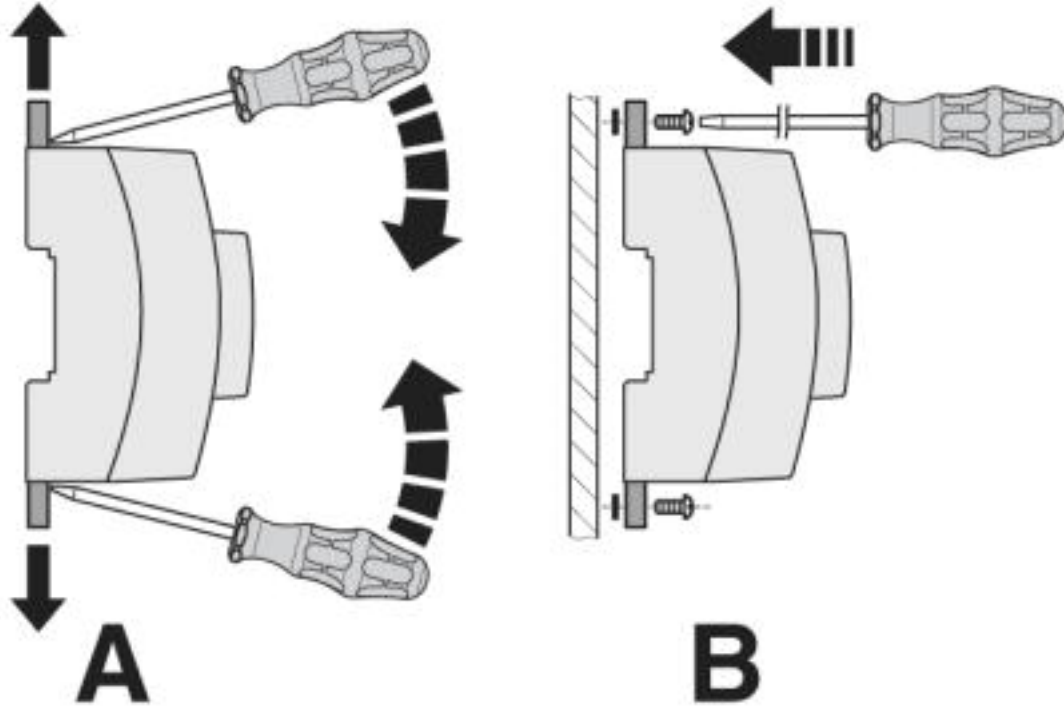
Schematic diagram



DIN rail mounting

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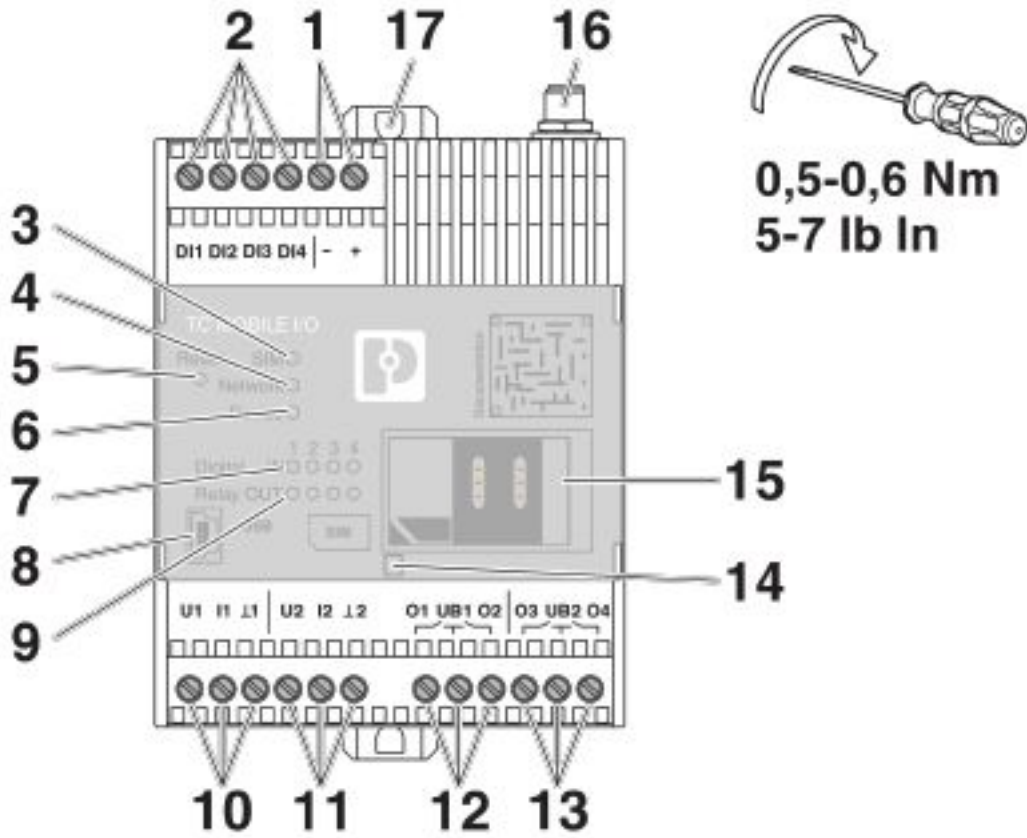
Schematic diagram



Wall mounting

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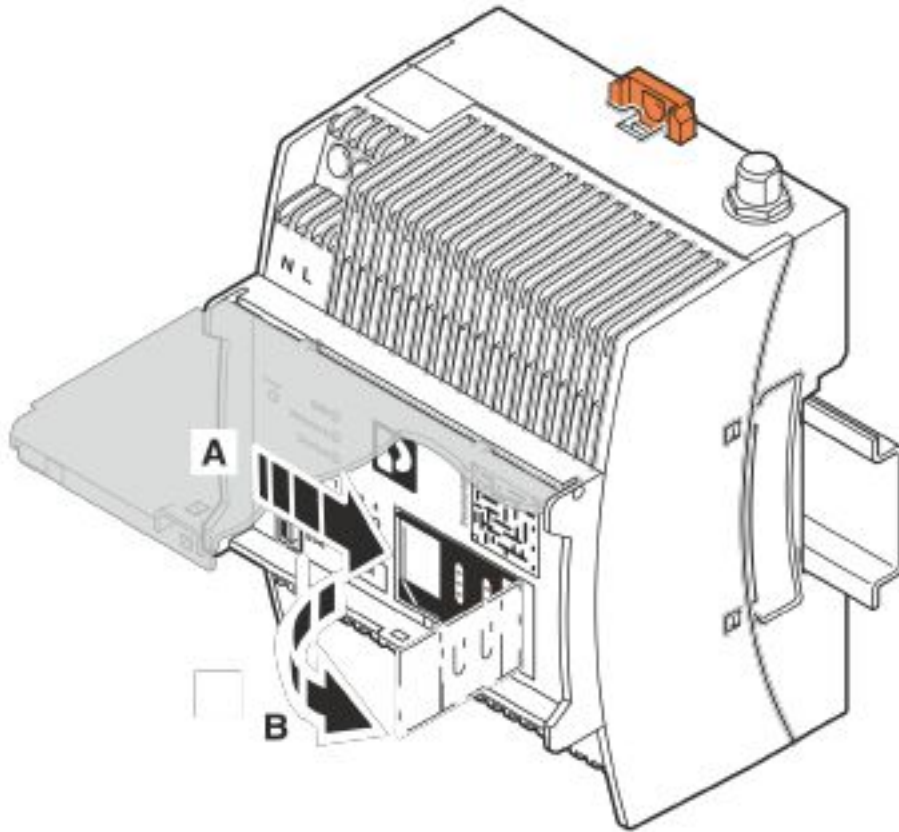
Schematic diagram



Front view

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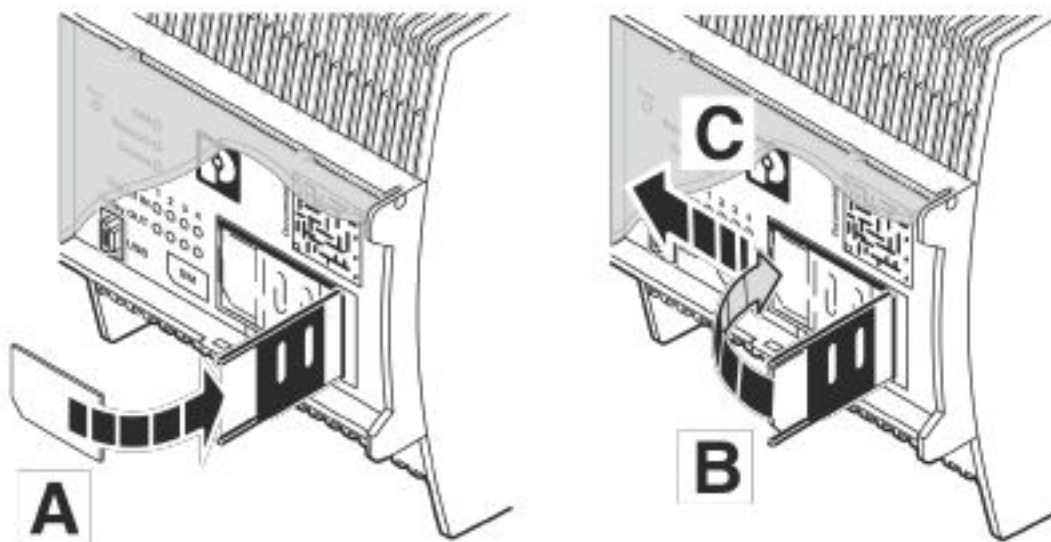
Schematic diagram



Insert the SIM card

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Schematic diagram



Insert the SIM card

Classifications

eCl@ss

eCl@ss 4.0	27250300
eCl@ss 4.1	27250300
eCl@ss 5.0	27242200
eCl@ss 5.1	27242200
eCl@ss 6.0	19179200
eCl@ss 7.0	19179290
eCl@ss 8.0	19179290
eCl@ss 9.0	27242608

ETIM

ETIM 3.0	EC000310
ETIM 4.0	EC000310
ETIM 5.0	EC001604
ETIM 6.0	EC001604
ETIM 7.0	EC001604

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	43222604

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Classifications

UNSPSC

UNSPSC 18.0	32151602
UNSPSC 19.0	32151602
UNSPSC 20.0	32151602
UNSPSC 21.0	32151602

Accessories

Accessories

Antenna

Antenna - PSI-GSM-STUB-ANT - 2313342



Mobile communication antenna for direct mounting on the device, SMA (male) antenna connector with articulated joint. The antenna is suitable for installation in plastic control cabinets not visible from the outside.

Antenna - PSI-GSM/UMTS-QB-ANT - 2313371



GSM UMTS antenna, with omnidirectional characteristic, 2 m antenna cable with SMA round connector

Coaxial cable

Antenna cable - PSI-CAB-GSM/UMTS-10M - 2900981



Cellular antenna cable, 10 m in length, SMA (male) -> SMA (female), 50 ohm impedance

Antenna cable - PSI-CAB-GSM/UMTS- 5M - 2900980



Cellular antenna cable, 5 m in length, SMA (male) -> SMA (female), 50 ohm impedance

Drivers and interfaces

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Accessories

Software dongle - AX ODP SERVER 5FU - 2700391



AX ODP SERVER for 5 remote control substations

Software dongle - AX ODP SERVER 8FU - 2700392



AX ODP SERVER for 8 remote control substations

Software dongle - AX ODP SERVER 10FU - 2700393



AX ODP SERVER for 10 remote control substations

Software dongle - AX ODP SERVER 15FU - 2700394



AX ODP SERVER for 15 remote control substations

Software dongle - AX ODP SERVER 20FU - 2700396



AX ODP SERVER for 20 remote control substations

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Accessories

Software dongle - AX ODP SERVER 25FU - 2700397



AX ODP SERVER for 25 remote control substations

Software dongle - AX ODP SERVER 30FU - 2700399



AX ODP SERVER for 30 remote control substations

Software dongle - AX ODP SERVER 50FU - 2700400



AX ODP SERVER for 50 remote control substations

Software dongle - AX ODP SERVER 75FU - 2700401



AX ODP SERVER for 75 remote control substations

Software dongle - AX ODP SERVER 100FU - 2700402



AX ODP SERVER for 100 remote control substations

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Accessories

Software dongle - AX ODP SERVER 150FU - 2700403



AX ODP SERVER for 150 remote control substations

Software dongle - AX ODP SERVER 200FU - 2700404



AX ODP SERVER for 200 remote control substations

Software dongle - AX ODP SERVER 250FU - 2700406



AX ODP SERVER for 250 remote control substations

Power supply

Power supply unit - STEP-PS/ 1AC/24DC/0.5 - 2868596



Primary-switched STEP POWER power supply for DIN rail mounting, input: 1-phase, output: 24 V DC/0.5 A

Programming cable

USB cable - CABLE-USB/MINI-USB-3,0M - 2986135



USB connecting cable: USB plug type A to USB plug type Mini-B; length: 3 m

Surge protection for transceiver systems

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Accessories

Surge protection device - CSMA-LAMBDA/4-2.0-BS-SET - 2800491



Attachment plug with Lambda/4 technology as surge protection for coaxial signal interfaces. Connection: Male/female SMA connectors.