

TC MOBILE I/O X300 - Signaling system



2903807

<https://www.phoenixcontact.com/us/products/2903807>

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Compact signaling system for cellular 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
- 2 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

Commercial data

Item number	2903807
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	DNC423
GTIN	4046356768856
Weight per piece (including packing)	243.3 g
Weight per piece (excluding packing)	243 g
Country of origin	DE

Technical data

Notes

Utilization restriction

CCCex note	Use in potentially explosive areas is not permitted in China.
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Product properties

Product type	Signaling system
MTTF	591 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	302 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	125 Years (SN 29500 standard, temperature 40°C, operating cycle 100%)

Electrical properties

Maximum power dissipation for nominal condition	3.85 W
Mains type	Cellular communication

Supply

Supply voltage range	10 V DC ... 60 V DC
Typical current consumption	140 mA (24 V DC)
Max. current consumption	180 mA

Input data

Digital

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

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

Output data

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Switching

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

Connection data

Supply

Conductor cross-section, flexible, with ferrule, without plastic sleeve	0.25 mm ² ... 2.5 mm ²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 2.5 mm ²
Conductor cross-section, flexible	0.20 mm ² ... 2.50 mm ²
Conductor cross-section, rigid	0.20 mm ² ... 2.50 mm ²
Conductor cross-section AWG	24 ... 14
Stripping length	6.50 mm
Tightening torque	0.5 Nm ... 0.6 Nm (5-7 lbs-in, screw terminal blocks)

Interfaces

Web server	yes
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Data: USB 2.0

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

Wireless

Interface description	GSM / GPRS
Frequency range	850 MHz (2 W (EGSM)) 900 MHz (2 W (EGSM)) 1800 MHz (1 W (EGSM)) 1900 MHz (1 W (EGSM))
GPRS	Multislot Class 10

Dimensions

Width	72 mm
Height	90 mm
Depth	62 mm

Material specifications

Color (Upper housing part)	light gray (RAL 7035)
Color (Lower housing part)	black (RAL 9005)

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Material (Housing)	Polycarbonate
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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
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
Altitude	2000 m
Permissible humidity (operation)	0 % ... 95 %

Approvals

CE

Certificate	CE-compliant
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ATEX

Identification	Ⓜ II 3 G Ex nA nC IIC T4 Gc X
Note	Please follow the special installation instructions in the documentation!

Wireless approval USA, FCC

Note	Part 15.107(a), 15.109(a)
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Corrosive gas test

Identification	ISA-S71.04-1985 G3 Harsh Group A
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Wireless approval, Europe

Note	RED 2014/53/EU
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EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
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Electrostatic discharge

Standards/regulations	EN 61000-4-2
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Electrostatic discharge

Contact discharge	± 6 kV
Discharge in air	± 8 kV
Indirect discharge	± 6 kV
Comments	Criterion B

Electromagnetic HF field

Standards/regulations	EN 61000-4-3
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Electromagnetic HF field

Frequency range	26 MHz ... 6 GHz
Field intensity	10 V/m
Comments	Criterion A

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Fast transients (burst)

Standards/regulations	EN 61000-4-4
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Fast transients (burst)

Input	± 2 kV (Unshielded supply line)
Signal	± 2 kV (Shielded signal line) ± 2 kV (Analog I/O cables, unshielded)
Comments	Criterion B

Surge current load (surge)

Standards/regulations	EN 61000-4-5
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Surge current load (surge)

Input	± 0.5 kV (Symmetrical, unshielded supply line) ± 0.5 kV (Asymmetrical, unshielded supply line)
Signal	± 1 kV (Data line, asymmetrical)
Comments	Criterion B

Conducted interference

Standards/regulations	EN 61000-4-6
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Conducted interference

Frequency range	0.15 MHz ... 80 MHz
Comments	Criterion A
Voltage	10 V

Emitted interference

Emitted radio interference in acc. with EN 55011	Class B, area of application: Industry and residential
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Criteria

Criterion A	Normal operating behavior within the specified limits.
Criterion B	Temporary impairment to operational behavior that is corrected by the device itself.

Standards and regulations

Standards/regulations	EN 50360
Standards/regulations	EN 50121-4

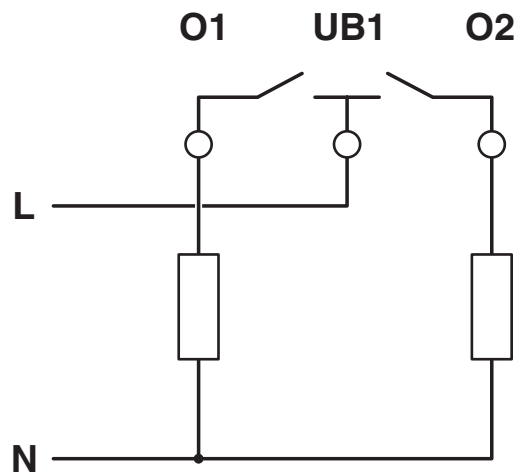
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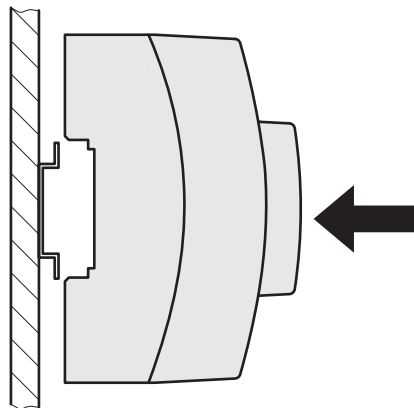
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Drawings

Connection diagram

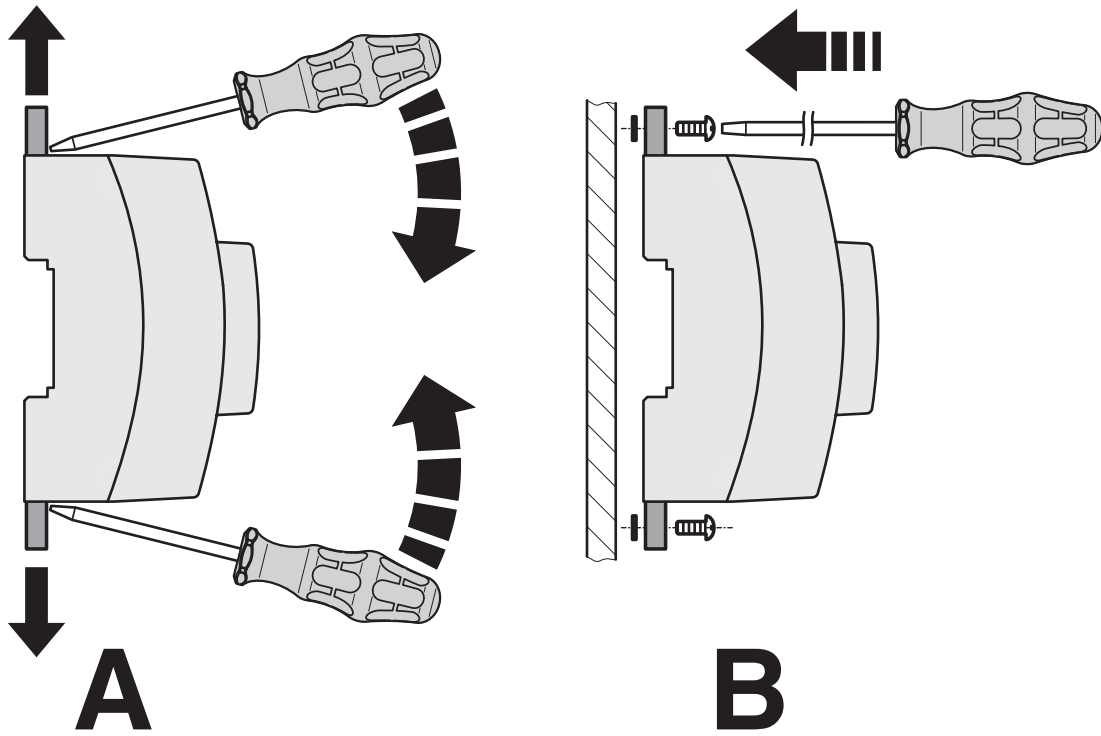


Schematic diagram



DIN rail mounting

Schematic diagram



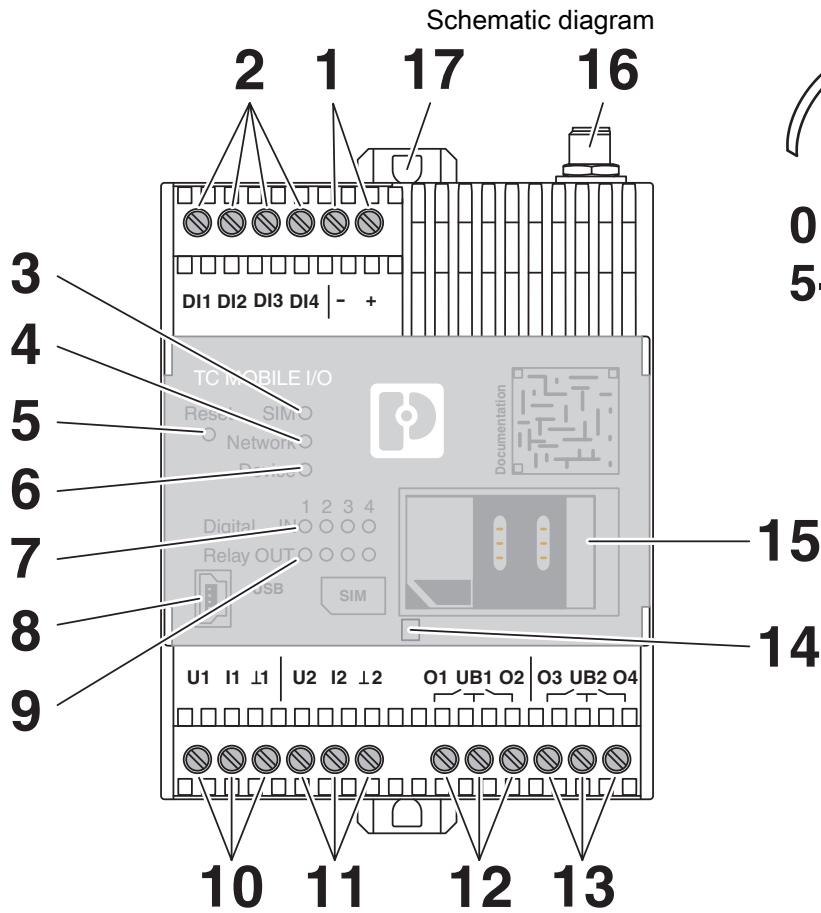
Panel mounting

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Front view

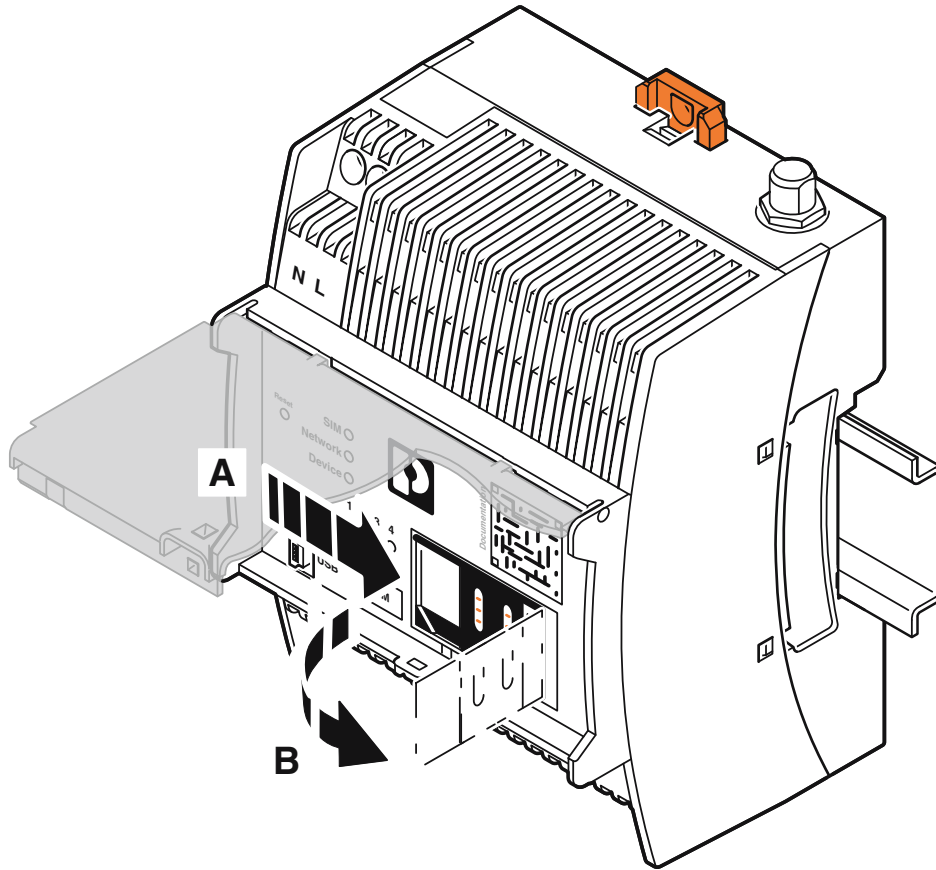
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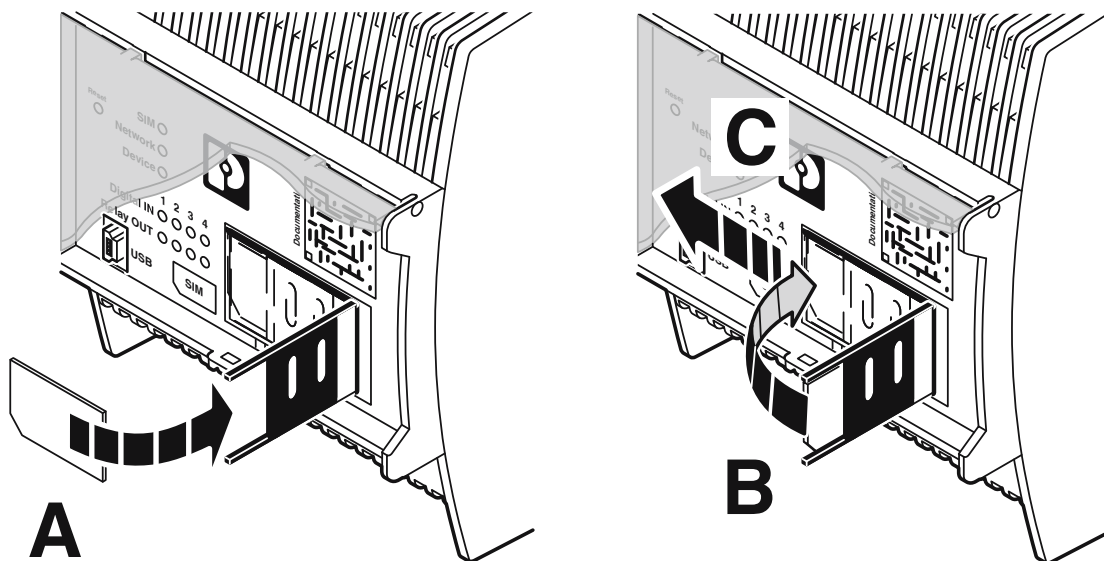
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Schematic diagram

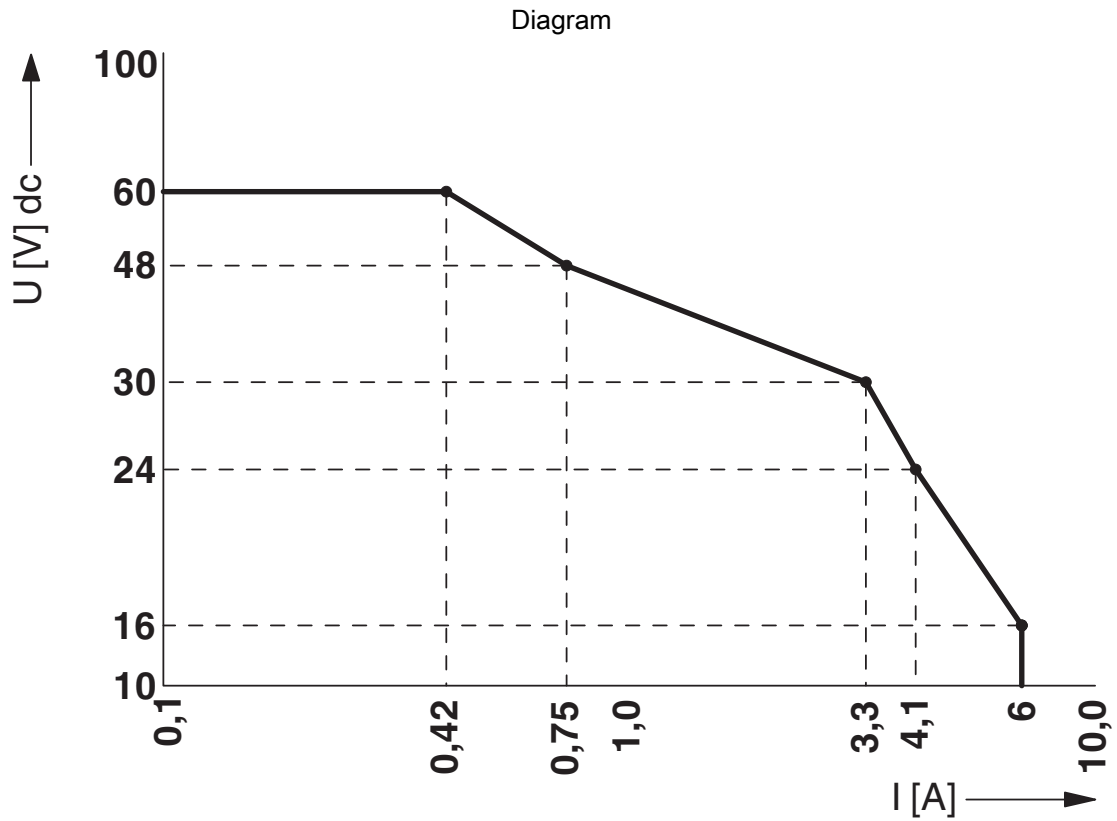


Insert the SIM card

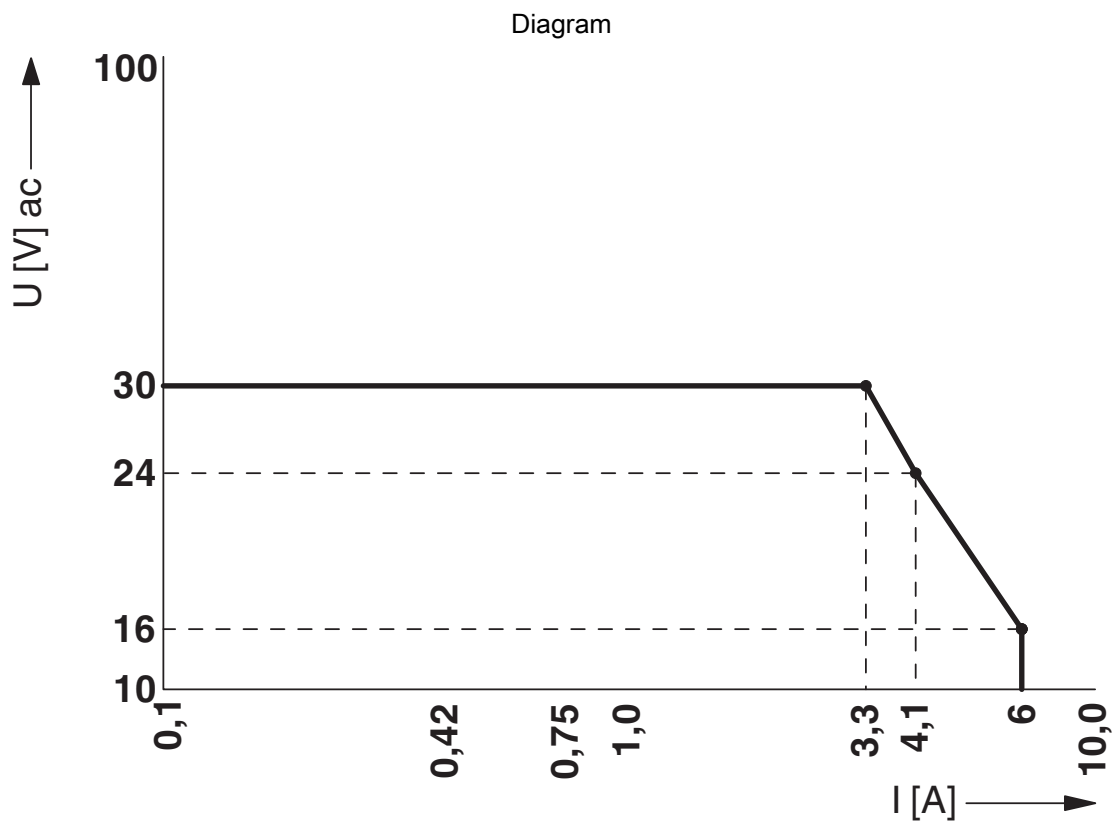
Schematic diagram



Insert the SIM card



Relay load curve DC



Relay load curve AC

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Classifications

UNSPSC

UNSPSC 21.0	32151600
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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.)	No substance above 0.1 wt%
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