TC ROUTER 3002T-4G GL - Router

1632697

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CRA-READY



Industrial 4G LTE router, worldwide use, fallback to 3G (HSPA+) and 2G (EDGE), 2 Ethernet interfaces, firewall, NAT, IPsec and OpenVPN support, 2x SMA-F antenna socket, SMS and email transmission, 2 digital inputs, 1 digital output

Product description

The TC ROUTER 3002T-4G GL cellular router is the successor to TC ROUTER 3002T-4G, item no. 2702528. The TC ROUTER for cellular communication implements high-performance data links of up to 150 Mbps via mobile 4G LTE networks. This enables you to establish a mobile broadband connection for highly flexible site networking even in places where a wired Internet connection is not available. These connections can be used to transmit sensitive data securely over mobile networks. Furthermore, the TC ROUTER offers a high level of security thanks to IPsec or OpenVPN tunnels, as well as an integrated stateful packet inspection firewall. This means that you can reliably protect your application against unauthorized access.

Your advantages

- Industrial cellular router for 4G cellular networks
- Stateful packet inspection firewall for dynamic filtering
- IPsec and OpenVPN
- Alert sent via SMS or email directly via the integrated switching input
- VPN remote start via call or SMS
- Configuration via web-based management or microSD card
- Two switching inputs and one switching output
- Two local Ethernet connections
- Extended temperature range of -40 °C … +70 °C
- Comprehensive diagnostic functions
- Switchable energy-saving mode
- Integrated logbook
- Connection monitoring

Commercial data

Item number	1632697
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN25
Product key	DNC422
GTIN	4067923152939
Weight per piece (including packing)	335.3 g
Weight per piece (excluding packing)	240 g
Customs tariff number	85176200
Country of origin	DE

Technical data

Notes

Note on application

Note on application	Only for industrial use
Note on application	As things stand now, we are preparing the product so that, as of December 11, 2027, it will comply with the requirements of the EU Cyber Resilience Act (CRA) based on the information currently available regarding the CRA.

Product properties

Product type	Cellular router
Application	Ethernet
MTTF	379 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	182 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	77 Years (SN 29500 standard, temperature 40°C, operating cycle 100%)
Special properties	The product is being prepared for compliance with the Cyber Resilience Act (CRA)

Insulation characteristics

Overvoltage category	II
Pollution degree	2

Security functions

1:1 Network Address Translation (NAT) in the VPN	supported
Number of VPN tunnels	≤ 10 (IPsec or OpenVPN)
Authentication	X.509v3, PSK
Data integrity	IPsec: MD5, SHA-1, SHA-256, AHS-384, SHA-512
	OpenVPN: MD5, SHA-1, SHA-224, SHA-256, AHS-384, SHA-512
Filtering	IP addresses
	Ports
	Protocols
Firewall rules	Stateful inspection firewall
Internet Protocol Security (IPsec) mode	ESP tunnel
Routing	Port forwarding
	Exposed host
	Masquerading
Encryption methods	IPsec: 3DES, AES-128, -192, -256
	OpenVPN: AES..., Blowfish 128, DES..., CAST5 128, RC2...

Electrical properties

Electrical isolation	VCC // LTE // Ethernet // PE

Maximum power dissipation for nominal condition	4.8 W
Mains type	Cellular communication

Supply

Supply voltage range	10 V DC ... 30 V DC (Via pluggable Push-in terminal block)
Typical current consumption	< 200 mA (24 V DC)
	65 mA (With activated energy-saving mode)
Max. current consumption	1.7 A

Function

Management	Web-based management
	SNMPv1/v2/v3
	SSHv2

Input data

Digital

Description of the input	Digital input
Number of inputs	2
Voltage input signal	10 V DC ... 30 V DC
Switching level "1" signal	10 V DC ... 30 V DC

Output data

Signal

Output name	Digital output
Number of outputs	1
Voltage output signal	10 V DC ... 30 V DC (depending on the operating voltage)
Current output signal	≤ 50 mA (Not short-circuit proof)

Connection data

Supply

Connection method	Push-in spring connection
Conductor cross-section, flexible, with ferrule, without plastic sleeve	0.25 mm² ... 1.5 mm²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 0.75 mm²
Single conductor/terminal point, rigid	0.14 mm² ... 1.5 mm²
Single-wire/terminal point, flexible	0.14 mm² ... 1.5 mm²
Conductor cross-section, flexible [AWG]	26 ... 16
Stripping length	9.00 mm

Interfaces

Web server	yes

Data: Ethernet interface, 10/100Base-T(X) in accordance with IEEE 802.3

Serial transmission speed	10/100 Mbps, auto negotiation
Connection method	RJ45 jack, shielded

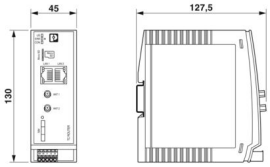
No. of channels	2
Transmission length	100 m (shielded twisted pair)
Protocols supported	TCP/IP, UDP/IP, HTTP(S), (S)FTP
	VPN: IPsec, OpenVPN
Auxiliary protocols	ARP, DHCP, DNS, DynDNS, PING (ICMP), SMTP(S), NTP, SSL/TLS, STARTTLS, SMS

Wireless

Interface description	4G (LTE) / 3G (HSPA+) / 2G (EDGE)
Frequency range	2100 MHz (LTE (FDD), B1)
	1900 MHz (LTE (FDD), B2)
	1800 MHz (LTE (FDD), B3)
	1700 MHz (LTE (FDD), B4)
	2100 MHz (LTE (FDD), B4)
	850 MHz (LTE (FDD), B5)
	2600 MHz (LTE (FDD), B7)
	900 MHz (LTE (FDD), B8)
	700 MHz (LTE (FDD), B12)
	700 MHz (LTE (FDD), B13)
	800 MHz (LTE (FDD), B18)
	800 MHz (LTE (FDD), B19)
	800 MHz (LTE (FDD), B20)
	1900 MHz (LTE (FDD), B25)
	850 MHz (LTE (FDD), B26)
	700 MHz (LTE (FDD), B28)
	1700 MHz (LTE (FDD), B66)
	2100 MHz (LTE (FDD), B66)
	2000 MHz (LTE (TDD), B34)
	2600 MHz (LTE (TDD), B38)
	1900 MHz (LTE (TDD), B39)
	2300 MHz (LTE (TDD), B40)
	2500 MHz (LTE (TDD), B41)
	2100 MHz (WCDMA, B1)
	1900 MHz (WCDMA, B2)
	1700 MHz (WCDMA, B4)
	2100 MHz (WCDMA, B4)
	850 MHz (WCDMA, B5)
	850 MHz (WCDMA, B6)
	900 MHz (WCDMA, B8)
	800 MHz (WCDMA, B19)
	1900 MHz (TD-SCDMA-GSM/EDGE, PCS)
	1800 MHz (TD-SCDMA-GSM/EDGE, DCS)
	900 MHz (TD-SCDMA-GSM/EDGE, E-GSM)
	850 MHz (TD-SCDMA-GSM/EDGE, GSM)

Data rate	≤ 150 Mbps (LTE, DL)
	≤ 50 Mbps (LTE, UL)
Number	2
Connection method	SMA (female)
Impedance	50 Ω
SIM Interface	1.8 V, 3 V, mini SIM (2FF)
LTE	CAT4
Country support	Global

Dimensions

Dimensional drawing	
Width	45 mm
Height	130 mm
Depth	127 mm

Material specifications

Color (Upper housing part)	light gray (RAL 7035)
Material (Housing)	Polycarbonate

Mechanical tests

Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	Operation: 5g, 10...150 Hz, 2.5 h, in XYZ direction
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	Operation: 15g

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 70 °C (Maximum transmission power 5 dBm)
	-40 °C ... 60 °C (Maximum transmission power 23 dBm)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 5000 m (For restrictions, see the manufacturer's declaration for altitude operation)
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)

Approvals

CE

Certificate	CE-compliant

Wireless approval, Europe

Note	RED 2014/53/EU

UL, USA

Identification	Class I, Zone 2, AEx ec IIC T4 Gc
	Class I, Div. 2, Groups A, B, C, D T4

UL, Canada

Identification	Ex ec IIC T4 Gc X

Corrosive gas test

Identification	ISA-S71.04-1985 G3 Harsh Group A

Wireless approval USA, FCC

Certificate	XMR202212EG25GL

Wireless approval Canada, IC

Certificate	10224A-2022EG25GL

Approval for Japan, RT, MIC

Identification	003-230115
	P250279003

EMC data

Electromagnetic compatibility	Conformance with RED Directive 2014/53/EU
Noise immunity	EN 61000-6-2

Electrostatic discharge

Standards/regulations	EN 61000-4-2

Electrostatic discharge

Contact discharge	± 6 kV (Test Level 3)
Discharge in air	± 8 kV (Test Level 3)
Comments	Criterion B

Electromagnetic HF field

Standards/regulations	EN 61000-4-3

Electromagnetic HF field

Frequency range	80 MHz ... 3 GHz (Test Level 3)
Field intensity	10 V/m
Comments	Criterion A

Fast transients (burst)

Standards/regulations	EN 61000-4-4

Fast transients (burst)

Input	± 2 kV (Test Level 3)
Signal	± 2 kV (Ethernet)
Comments	Criterion B

Surge current load (surge)

Standards/regulations	EN 61000-4-5

Surge current load (surge)

Input	± 0.5 kV (symmetrical)
	± 1 kV (asymmetrical)
Signal	± 1 kV (Data line, asymmetrical)
Comments	Criterion B

Conducted interference

Standards/regulations	EN 61000-4-6

Conducted interference

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

Emitted interference

Standards/regulations	EN 61000-6-4
Radio interference voltage in acc. with EN 55011	Class B, area of application: Industry and residential
Emitted radio interference in acc. with EN 55011	Class B, area of application: Industry and residential

Criteria

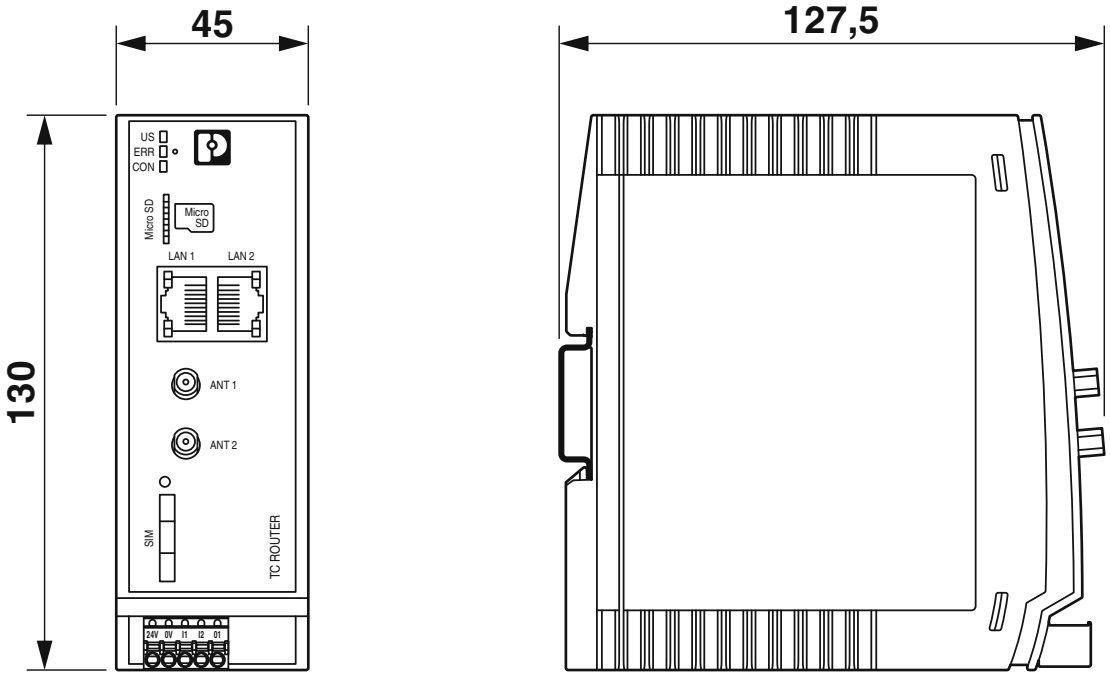
Criterion A	Normal operating behavior within the specified limits.
Criterion B	Temporary impairment to operational behavior that is corrected by the device itself.

Mounting

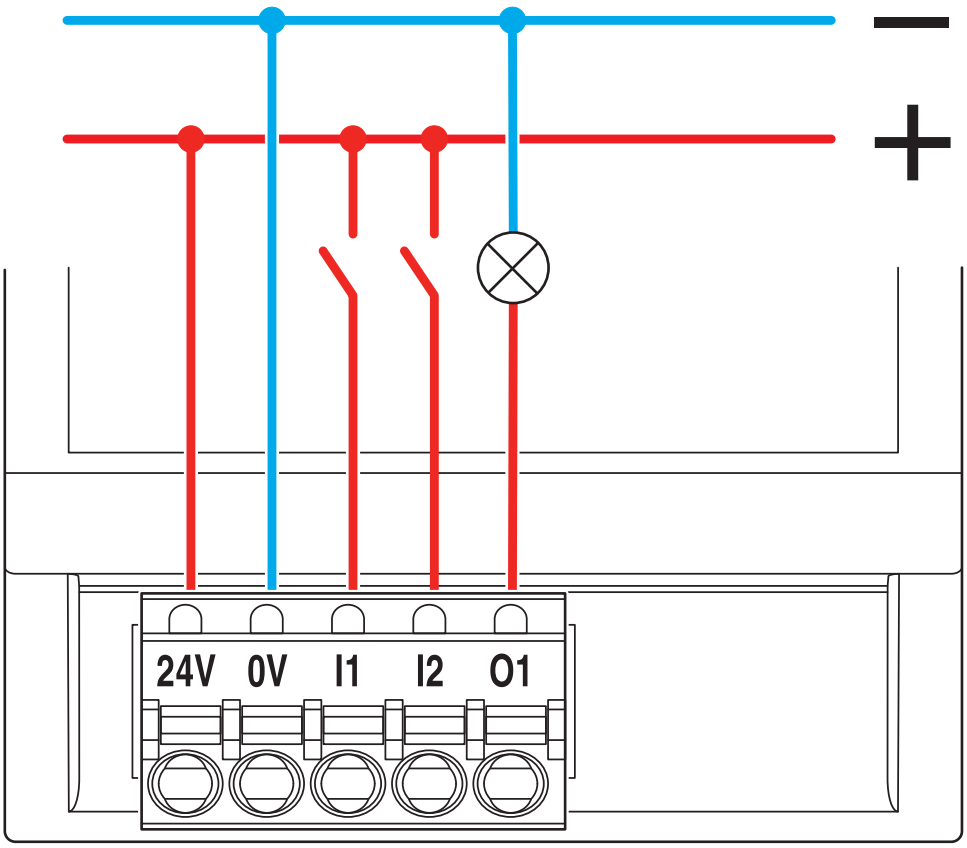
Mounting type	DIN rail mounting
Assembly note	Indoor installation
Mounting position	Vertical (horizontal DIN rail)

Drawings

Dimensional drawing

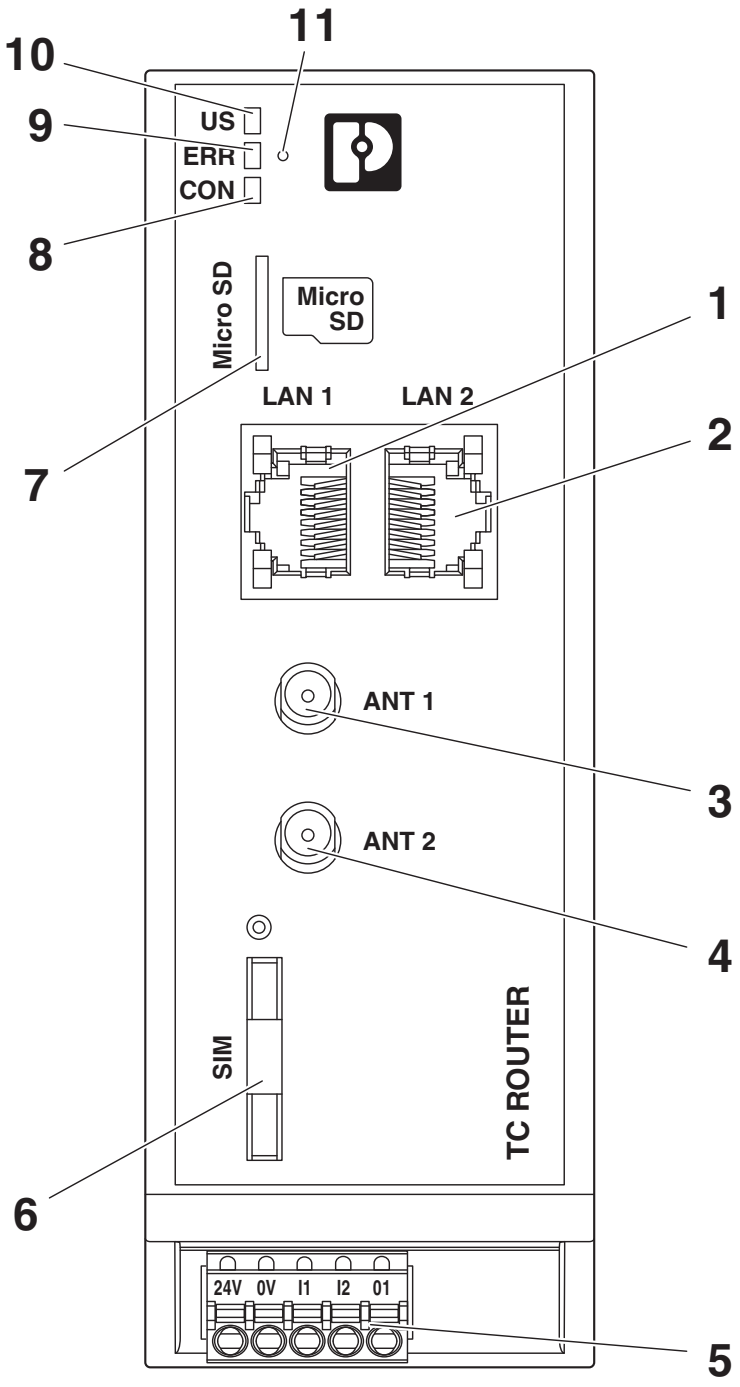


Connection diagram



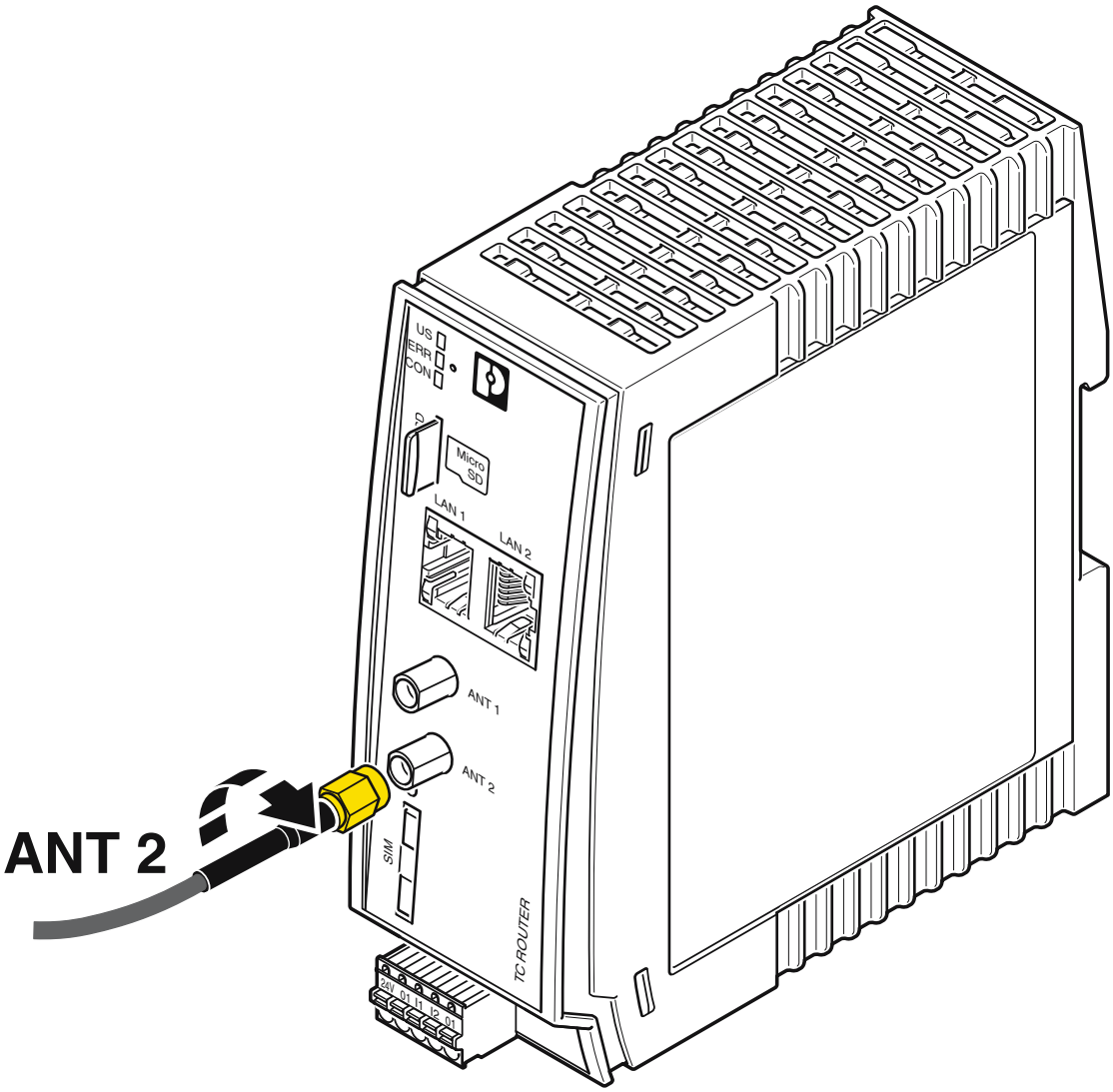
Switching inputs

Schematic diagram



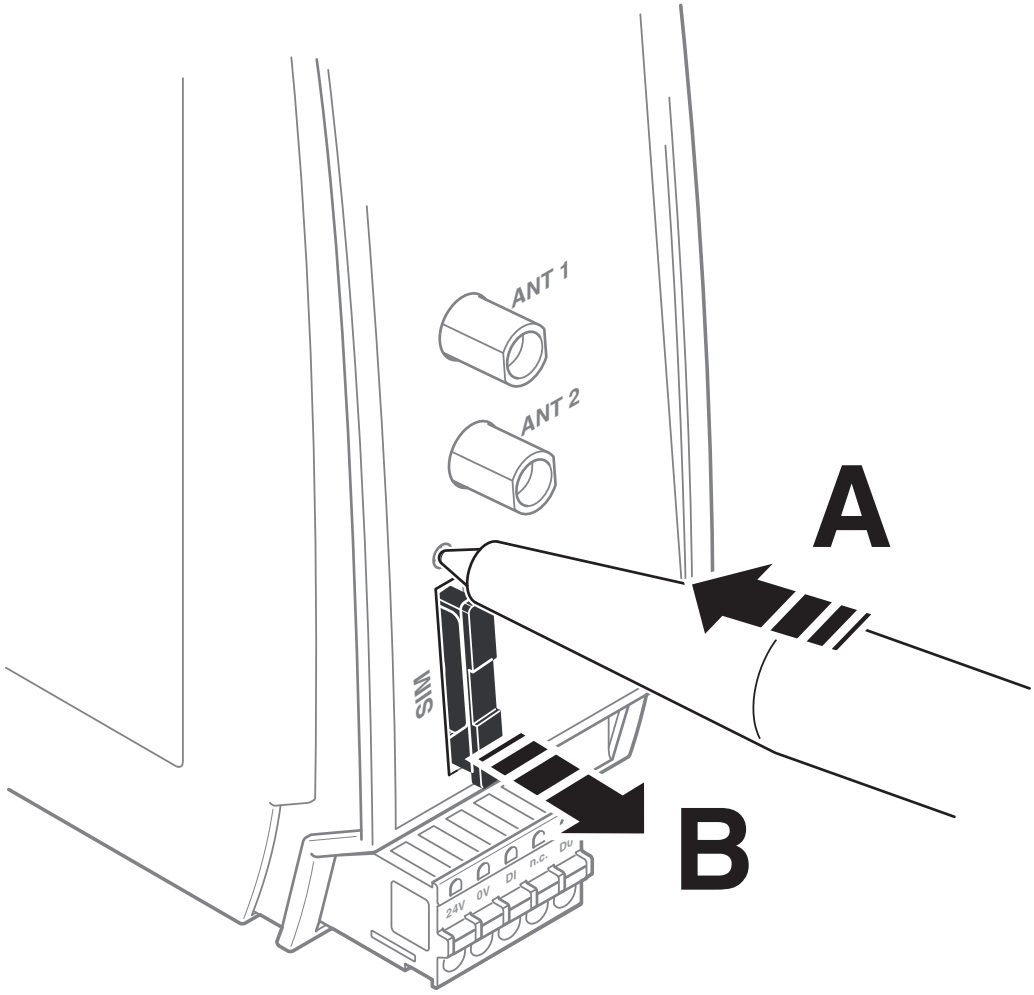
Front view

Schematic diagram



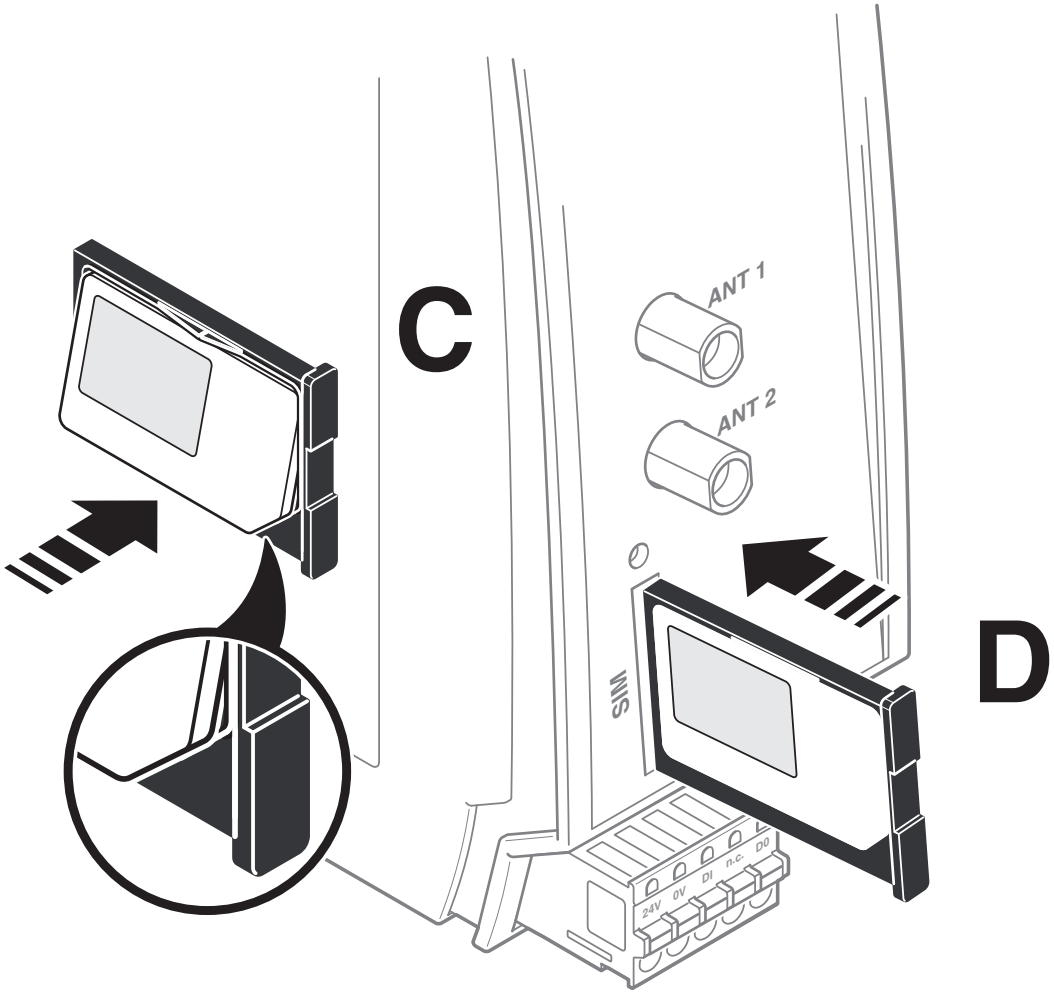
Connect the antenna

Schematic diagram



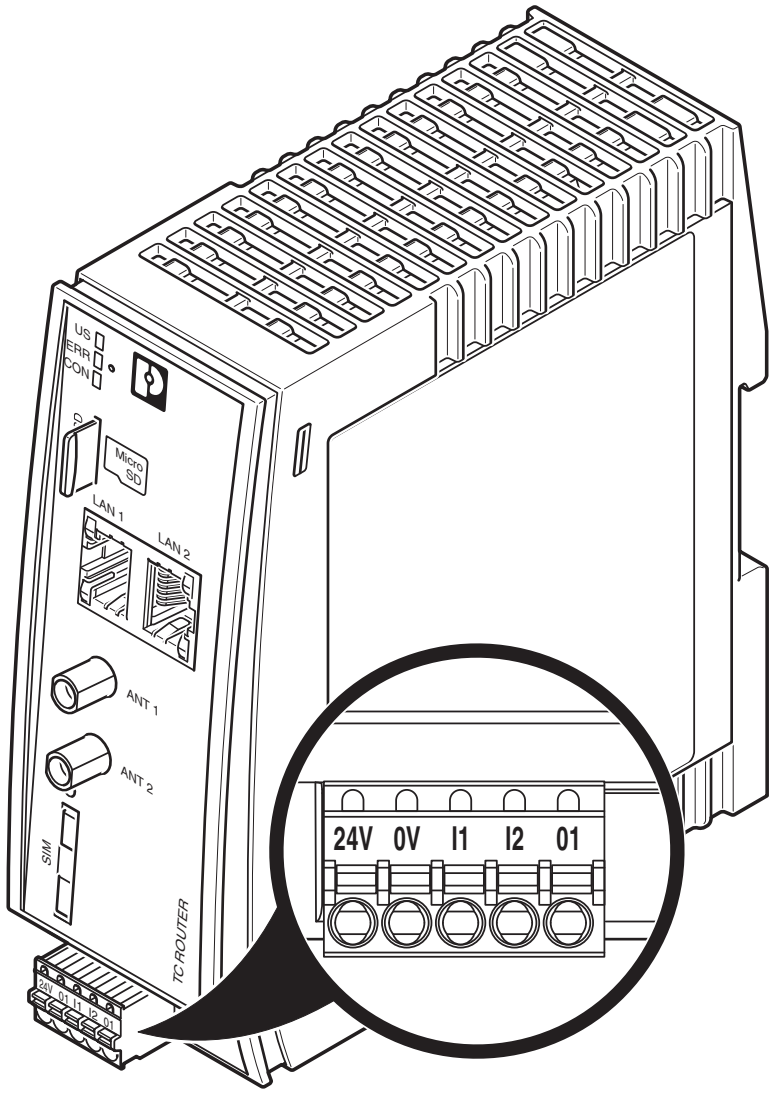
Remove SIM card holder

Schematic diagram



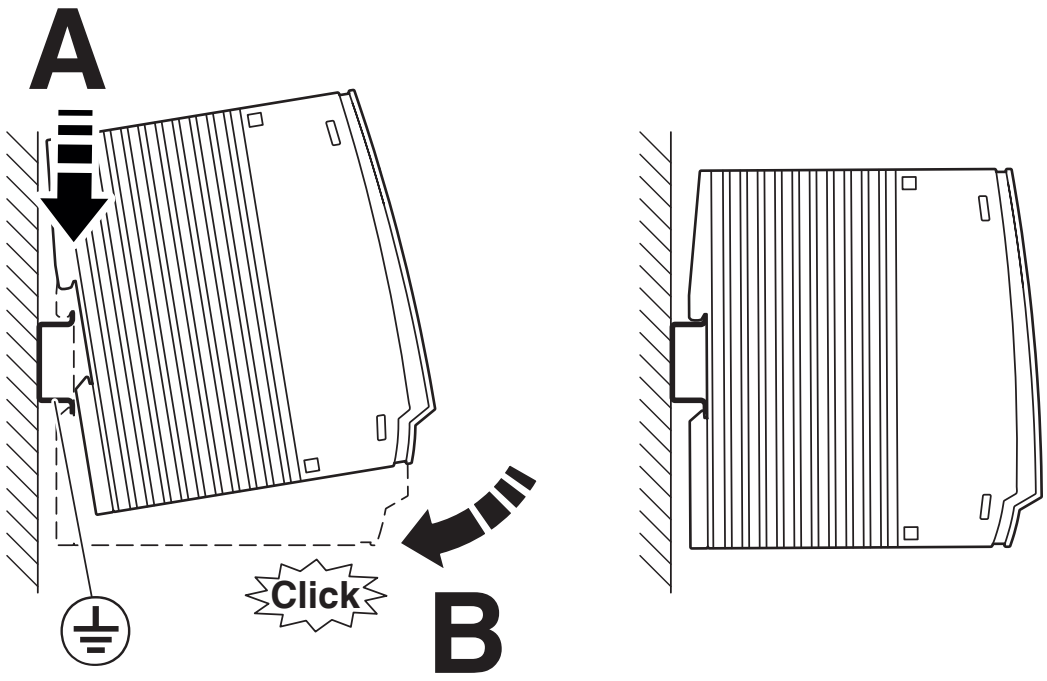
Insert the SIM card

Schematic diagram



Device connections

Schematic diagram



Mounting

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1632697

cULus Listed
Approval ID: E238705

MIC
Approval ID: P250279003

Classifications

ECLASS

ECLASS-13.0	19170502
ECLASS-15.0	19170502

ETIM

ETIM 10.0	EC001478

UNSPSC

UNSPSC 21.0	43222600

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	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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