

## Router - TC CLOUD CLIENT 1002-4G VZW - 2702887

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Industrial VPN gateway for mGuard Secure Cloud, IPsec communication via 4G (LTE), Verizon Wireless (US), 2-port switch, 1 digital input, 1 digital output

### Product Description

The TC CLOUD CLIENT 4G product range offers cost-effective field devices for secure remote maintenance scenarios via the 4G LTE mobile network. The devices are optimized for use with the mGuard Secure Cloud. For this reason, all CLOUD CLIENT devices support Virtual Private Networks (VPNs) as standard.


A scope of functions optimized for the mGuard Secure Cloud enables quick startup of the devices in the field.

### Your advantages

- Secure communication via IPsec
- Configuration via web-based management or microSD card
- Cloud-based VPN infrastructure from Phoenix Contact
- Turnkey VPN infrastructure for operators, machine builders, and systems manufacturers
- Secure and reliable, thanks to industry-proven mGuard security technology
- Support for cellular iOS-based devices such as Apple iPads and iPhones



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 378626
GTIN	4055626378626
Weight per Piece (excluding packing)	340.000 g
Custom tariff number	85176200
Country of origin	Germany

### Technical data

Note

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## Technical data

### Note

Utilization restriction	Use in potentially explosive areas is not permitted in China.
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### Dimensions

Width	45 mm
Height	130 mm
Depth	126 mm

### Ambient conditions

Ambient temperature (operation)	0 °C ... 60 °C
Ambient temperature (storage/transport)	0 °C ... 60 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)
Degree of protection	IP20 (Manufacturer's declaration)
Noise immunity	EN 61000-6-2

### General

Electrical isolation	VCC // LTE // Ethernet // PE
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Mounting type	DIN rail mounting
Net weight	347 g
Housing material	Plastic
Color	gray
MTTF	383 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	184 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	78 Years (SN 29500 standard, temperature 40°C, operating cycle 100%)
Degree of pollution	2
Wireless licences	USA

### Power supply

Supply voltage range	10 V DC ... 30 V DC (SELV)
Typical current consumption	< 200 mA (24 V DC)
	65 mA (With activated energy-saving mode)
Conductor cross section flexible max.	1.50 mm <sup>2</sup>
Conductor cross section flexible min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	1.50 mm <sup>2</sup>
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section AWG max.	16
Conductor cross section AWG min.	26

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## Technical data

### Interfaces

Interface 1	Ethernet interface, 10/100Base-T(X) in accordance with IEEE 802.3
Interface	Ethernet
Operating mode	Indoor use only
No. of ports	2 (SELV)
Connection method	RJ45 jack, shielded
Transmission length	100 m (shielded twisted pair)
Protocols supported	TCP/IP, UDP/IP, FTP, HTTP
Auxiliary protocols	ARP, DHCP, PING (ICMP), SNMP V1, SMTP
Serial transmission speed	10/100 Mbps, auto negotiation

### Wireless interface

Interface description	LTE (FDD)
Frequency range	700 MHz (LTE B13)
	1700 MHz (LTE B4)
Data rate	≤ 150 Mbps (LTE (DL))
	≤ 50 Mbps (LTE (UL))
Antenna	50 Ω impedance SMA antenna socket
SIM interface 1	1.8 volt, 3 volt
LTE	CAT4
Country support	USA

### Function

Web-based management	yes
Management	Web-based management, SNMP
Number of VPN tunnels	1
Security functions	Supported 3DES, AES-128, -192, -256 ESP tunnel X.509v3, PSK MD5, SHA-1 RFC 3706

### Digital outputs

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)

### Digital inputs

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

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### Conformance/approvals

Designation	UL, USA/Canada
Identification	Class I, Zone 2, AEx nA IIC T4 / Ex nA IIC T4 Gc
	Class I, Div. 2, Groups A, B, C, D T4
Designation	Corrosive gas test
Identification	ISA-S71.04-1985 G3 Harsh Group A

### Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Type of test	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6
Test result	5g, 10...150 Hz, 2.5 h, in XYZ direction
Type of test	Shock in acc. with EN 60068-2-27/IEC 60068-2-27
Test result	15g
Noise immunity	EN 61000-6-2
Standards/regulations	EN 61000-4-2
Contact discharge	± 6 kV (Test Level 3)
Standards/regulations	EN 61000-4-3
Frequency range	80 MHz ... 3 GHz (Test Level 3)
Standards/regulations	EN 61000-4-4
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

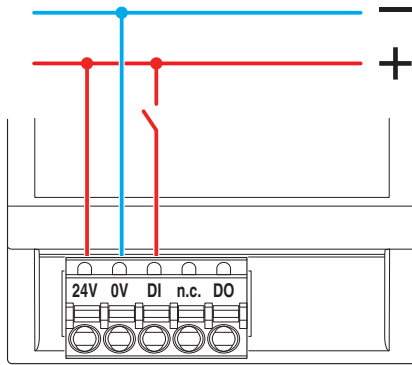
### Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

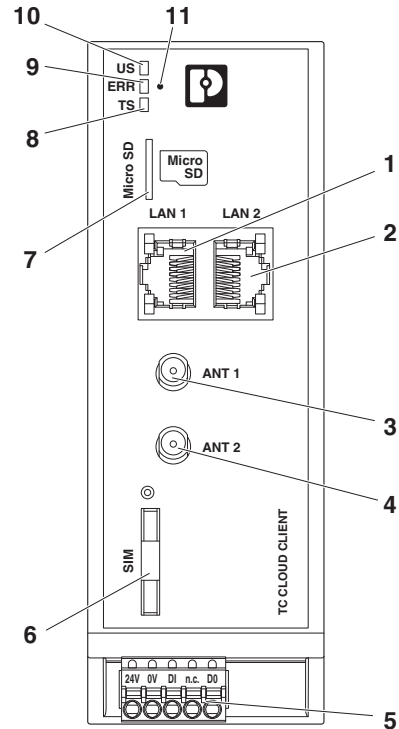
# Router - TC CLOUD CLIENT 1002-4G VZW - 2702887

Connection diagram



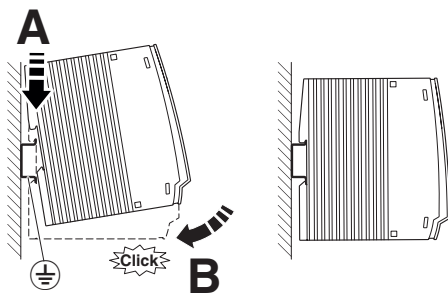
Switching input and switching output

Schematic diagram



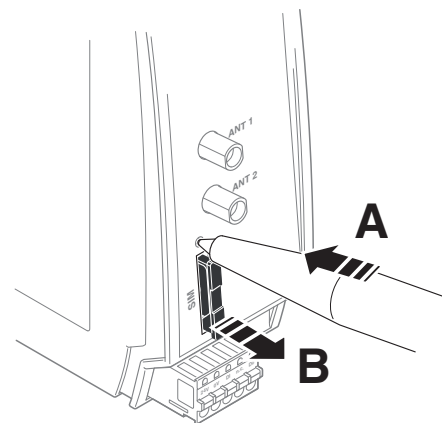
Front view

Schematic diagram



DIN rail mounting

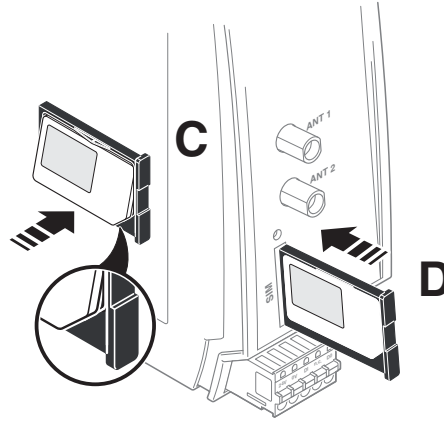
Schematic diagram



Remove SIM card holder

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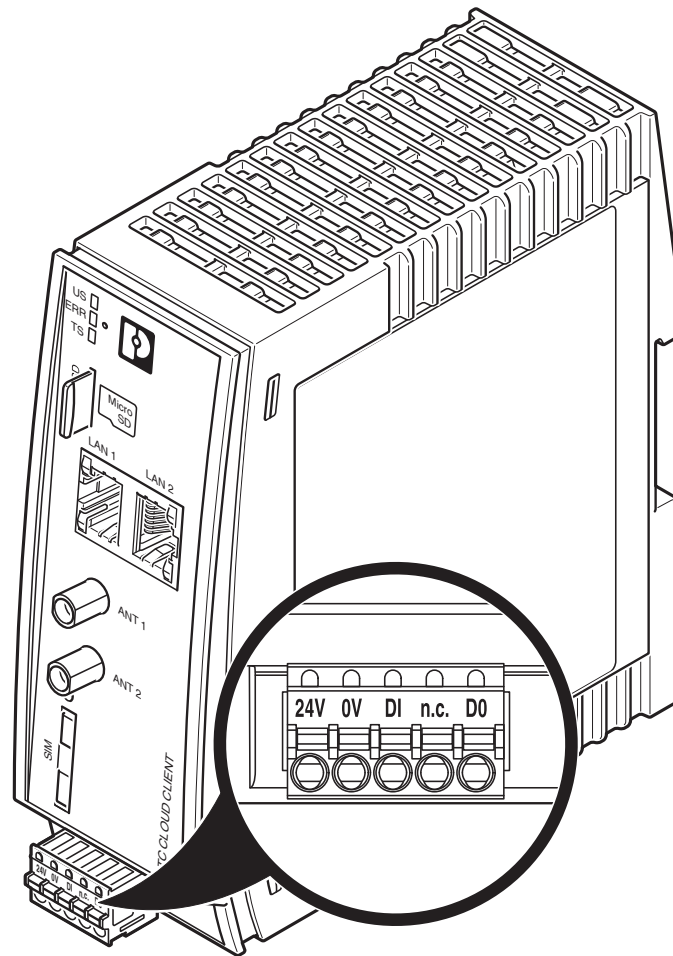
Schematic diagram



Insert the SIM card

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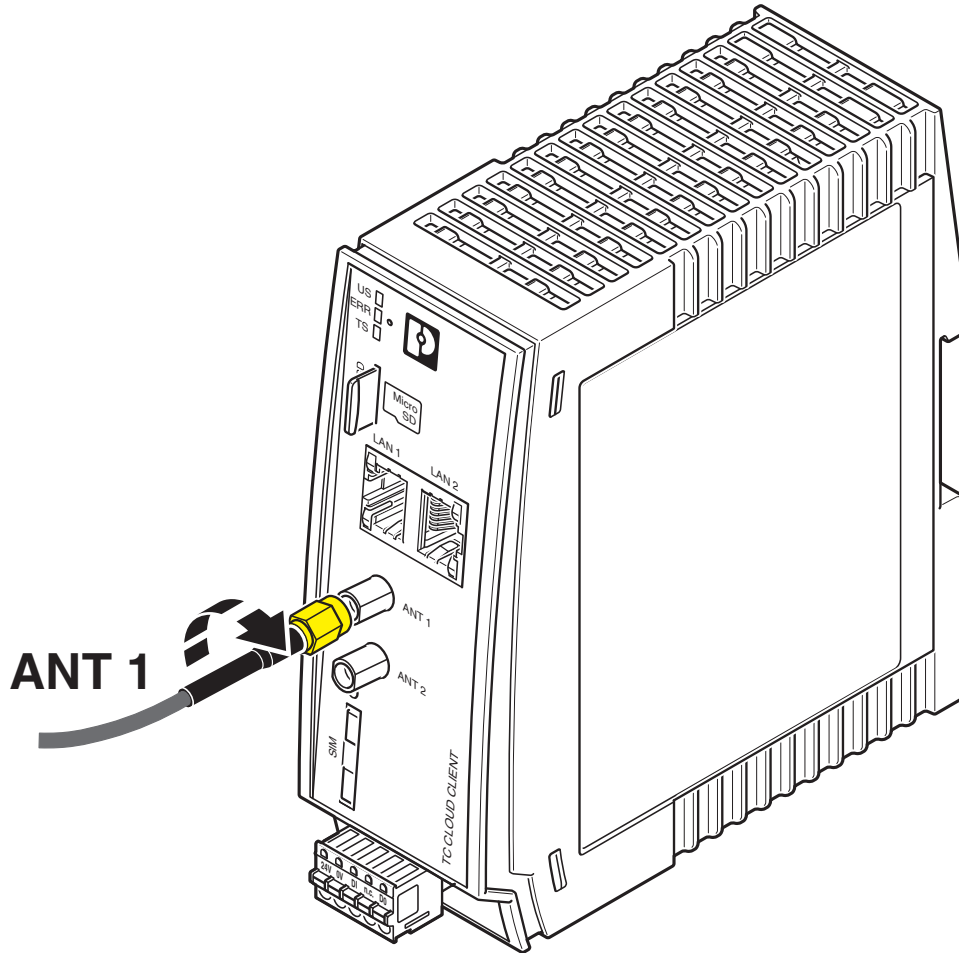
Schematic diagram



Connecting the supply voltage

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Schematic diagram



Connect the antenna

## Classifications

eCl@ss

eCl@ss 10.0.1	19170502
eCl@ss 11.0	19170502
eCl@ss 5.0	19030100
eCl@ss 5.1	19030100
eCl@ss 6.0	19170100
eCl@ss 7.0	19170103
eCl@ss 9.0	19170103

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## Classifications

### ETIM

ETIM 6.0	EC001478
ETIM 7.0	EC001478

## Approvals

### Approvals

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#### Approvals

cULus Listed

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Ex Approvals

UL Listed / cUL Listed / cULus Listed

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### Approval details

cULus Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
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## Accessories

### Accessories

#### Antenna

Antenna - TC ANT MOBILE WALL 0,5M - 2702274



Multiband cellular antenna for wall mounting, 0.5 m antenna cable, with SMA circular connector, suitable for LTE/4G

#### Coaxial adapter

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### Accessories

Adapter - RAD-ADP-SMA/F-SMA/M-90 - 2917324



Antenna adapter, frequency range: 0.3 GHz ... 6 GHz, connection: SMA (female) -> SMA (male), angled 90°

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### Coaxial cable

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



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

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



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

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### PCB plug

PCB connector - FK-MCP 1,5/ 5-ST-3,81GY35BD-D0 - 1105116



PCB connector, nominal cross section: 1.5 mm<sup>2</sup>, color: light gray, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Female connector, Number of rows: 1, Number of positions per row: 5, product range: FK-MCP 1,5/...-ST, pitch: 3.81 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, plug-in system: MINI COMBICON, Locking: without, mounting: without, type of packaging: packed in cardboard

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### Power supply

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### Accessories

Power supply unit - TRIO-PS-2G/1AC/24DC/3/C2LPS - 2903147



Primary-switched TRIO POWER power supply with push-in connection for DIN rail mounting, input: 1-phase, output: 24 V DC/3 A C2LPS

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### Surge protection for transceiver systems

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.