

# TC ROUTER 5004T-5G EU - Router



1439475

<https://www.phoenixcontact.com/gb/products/1439475>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Industrial 5G router (5G NR, SA/NSA), EU device, fallback to 4G (LTE Advanced Pro) and 3G (HSPA+), 4-port switch, firewall, NAT, IPsec and OpenVPN, 4x SMA-F antenna sockets, SMS and email transmission, 4 DI, 2 DO

## Your advantages

- Cellular router for public and private 5G networks (SA/NSA)
- Stateful inspection firewall for dynamic filtering
- Alert sent via SMS or email directly via the integrated switching input
- IPsec and OpenVPN
- VPN remote start via call or SMS
- Configuration via web-based management or microSD card
- 4 switching inputs and 2 switching outputs
- 4 local Ethernet connections
- Integrated logbook
- Extended temperature range of -40 °C ... +70 °C
- Comprehensive diagnostic functions
- Switchable energy-saving mode

## Commercial data

Item number	1439475
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DNC422
Product key	DNC422
GTIN	4063151818258
Weight per piece (including packing)	399.4 g
Weight per piece (excluding packing)	240 g
Country of origin	DE

# TC ROUTER 5004T-5G EU - Router



1439475

<https://www.phoenixcontact.com/gb/products/1439475>

## Technical data

### Product properties

Product type	Cellular router
Application	Ethernet
MTTF	378 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	164 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	65 Years (SN 29500 standard, temperature 40°C, operating cycle 100%)

### Electrical properties

Electrical isolation	Ethernet // PE
Maximum power dissipation for nominal condition	7.2 W
Mains type	Cellular communication

### Supply

Supply voltage range	10 V DC ... 30 V DC (Via pluggable Push-in terminal block)
Typical current consumption	300 mA (24 V DC)
	90 mA (24 V DC, with activated energy-saving mode)
Connection method	Push-in spring connection

### Function

Management	Web-based management
	SNMPv1/v2/v3
	SSHv2

### Input data

#### Digital

Description of the input	Digital input
Number of inputs	4
Voltage input signal	10 V DC ... 30 V DC
Switching level "0" signal	< 8 V DC
Switching level "1" signal	10 V DC ... 30 V DC

### Output data

#### Signal

Output name	Digital output
Number of outputs	2
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

# TC ROUTER 5004T-5G EU - Router



1439475

<https://www.phoenixcontact.com/gb/products/1439475>

## Supply

Connection method	Push-in spring connection
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>
Conductor cross section, flexible	0.14 mm <sup>2</sup> ... 1.50 mm <sup>2</sup>
Conductor cross section, rigid	0.14 mm <sup>2</sup> ... 1.50 mm <sup>2</sup>
Conductor cross section AWG	26 ... 16
Stripping length	9 mm

## Interfaces

Data: Ethernet interface, 10/100/1000Base-T(X) in accordance with IEEE 802.3

Serial transmission speed	10/100/1000 Mbps, auto negotiation
Connection method	RJ45 jack, shielded
No. of channels	4
Transmission length	100 m (shielded twisted pair)
Protocols supported	TCP/IP, UDP/IP, HTTP(S), (S)FTP VPN: IPsec, OpenVPN, GRE
Auxiliary protocols	ARP, DHCP, DNS, DynDNS, PING (ICMP), SMTP(S), NTP, SSL/TLS, STARTTLS, SMS

## Wireless

Interface description	5G (NR) / 4G (LTE Advanced Pro) / 3G (HSPA+)
Operating mode	LTE (CAT16) 5G NR (3GPP R15)
Frequency range	2100 MHz (5G NR NSA, n1) 1800 MHz (5G NR NSA, n3) 850 MHz (5G NR NSA, n5) 2600 MHz (5G NR NSA, n7) 900 MHz (5G NR NSA, n8) 800 MHz (5G NR NSA, n20) 700 MHz (5G NR NSA, n28) 2600 MHz (5G NR NSA, n38) 2300 MHz (5G NR NSA, n40) 2600 MHz (5G NR NSA, n41) 3700 MHz (5G NR NSA, n77) 2100 MHz (5G NR SA, n1) 1800 MHz (5G NR SA, n3) 850 MHz (5G NR SA, n5) 2600 MHz (5G NR SA, n7) 900 MHz (5G NR SA, n8) 800 MHz (5G NR SA, n20) 700 MHz (5G NR SA, n28) 2600 MHz (5G NR SA, n38)

# TC ROUTER 5004T-5G EU - Router



1439475

<https://www.phoenixcontact.com/gb/products/1439475>

	2300 MHz (5G NR SA, n40)
	2600 MHz (5G NR SA, n41)
	3700 MHz (5G NR SA, n77)
	3500 MHz (5G NR SA, n78)
	2100 MHz (LTE (FDD), B1)
	1800 MHz (LTE (FDD), B3)
	850 MHz (LTE (FDD), B5)
	2600 MHz (LTE (FDD), B7)
	900 MHz (LTE (FDD), B8)
	800 MHz (LTE (FDD), B20)
	700 MHz (LTE (FDD), B28)
	1500 MHz (LTE (FDD), B32)
	2600 MHz (LTE (TDD), B38)
	2300 MHz (LTE (TDD), B40)
	2500 MHz (LTE (TDD), B41)
	3500 MHz (LTE (TDD), B42)
	3700 MHz (LTE (TDD), B43)
	2100 MHz (WCDMA, B1)
	850 MHz (WCDMA, B5)
	900 MHz (WCDMA, B8)
Data rate	2.1 Gbps (5G NR SA, DL)
	900 Mbps (5G NR SA, UL)
	2.5 Gbps (5G NR NSA, DL)
	650 Mbps (5G NR NSA, UL)
	1 Gbps (LTE, DL)
	200 Mbps (LTE, UL)
Number	4
Connection method	SMA (female)
Impedance	50 Ω
SIM Interface	1.8 volt, 3 volt
	Micro SIM (3FF)
Country support	Europe

## Dimensions

Dimensional drawing	
Width	45 mm
Height	130 mm
Depth	130 mm

1439475

<https://www.phoenixcontact.com/gb/products/1439475>

## Material specifications

Material	Polycarbonate
----------	---------------

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 70 °C
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
-------------	--------------

## EMC data

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

### 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)

--	--

# TC ROUTER 5004T-5G EU - Router



1439475

<https://www.phoenixcontact.com/gb/products/1439475>

Standards/regulations	EN 61000-4-5
-----------------------	--------------

## Surge current load (surge)

Input	$\pm 0.5$ kV (symmetrical) $\pm 1$ kV (asymmetrical)
Signal	$\pm 1$ 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

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 instructions	To achieve all frequency combinations and maximum reception quality, always use four antennas.

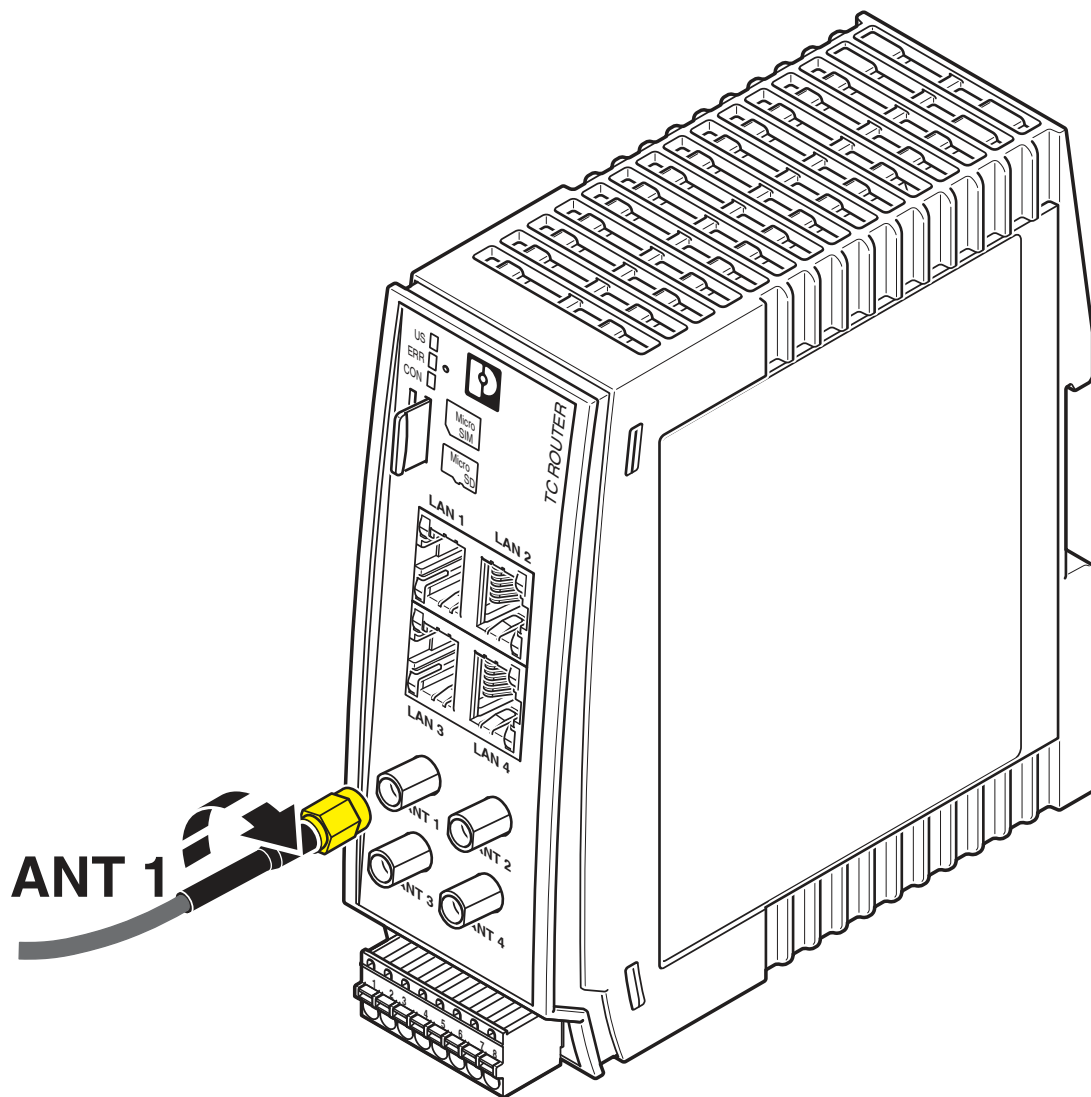
# TC ROUTER 5004T-5G EU - Router

1439475

<https://www.phoenixcontact.com/gb/products/1439475>

## Drawings

Schematic diagram

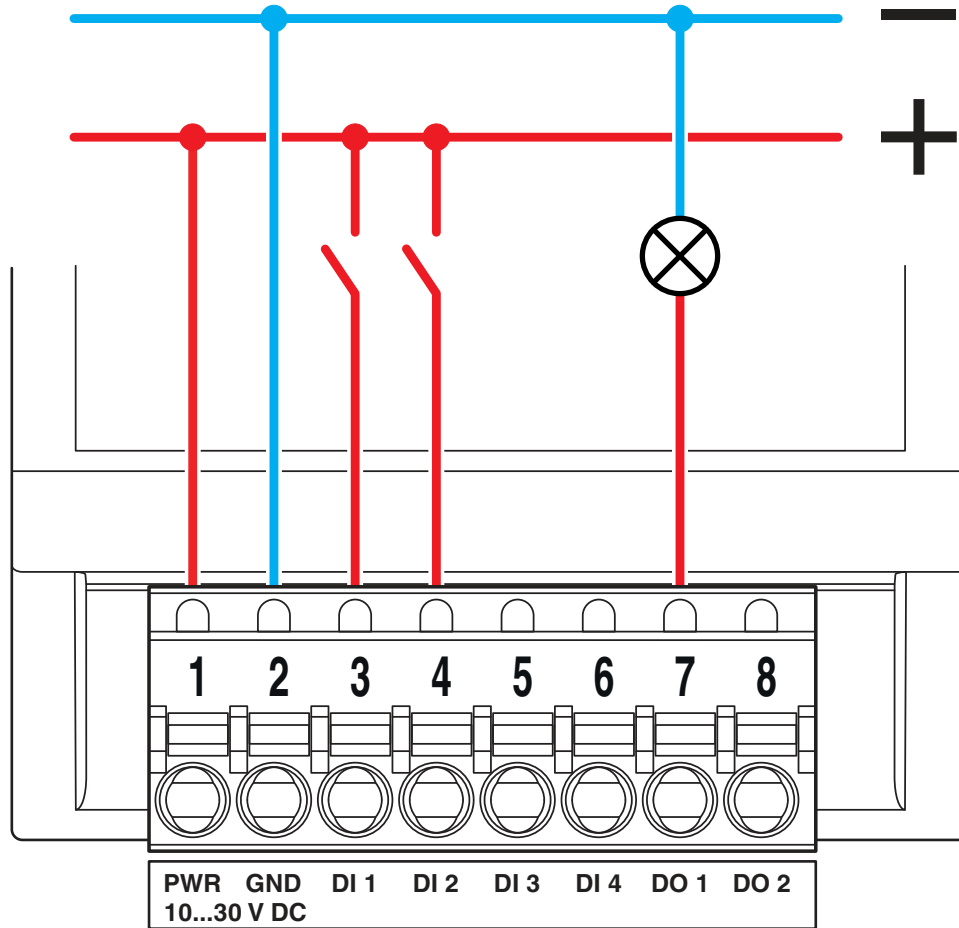


Connect the antenna

1439475

<https://www.phoenixcontact.com/gb/products/1439475>

Connection diagram



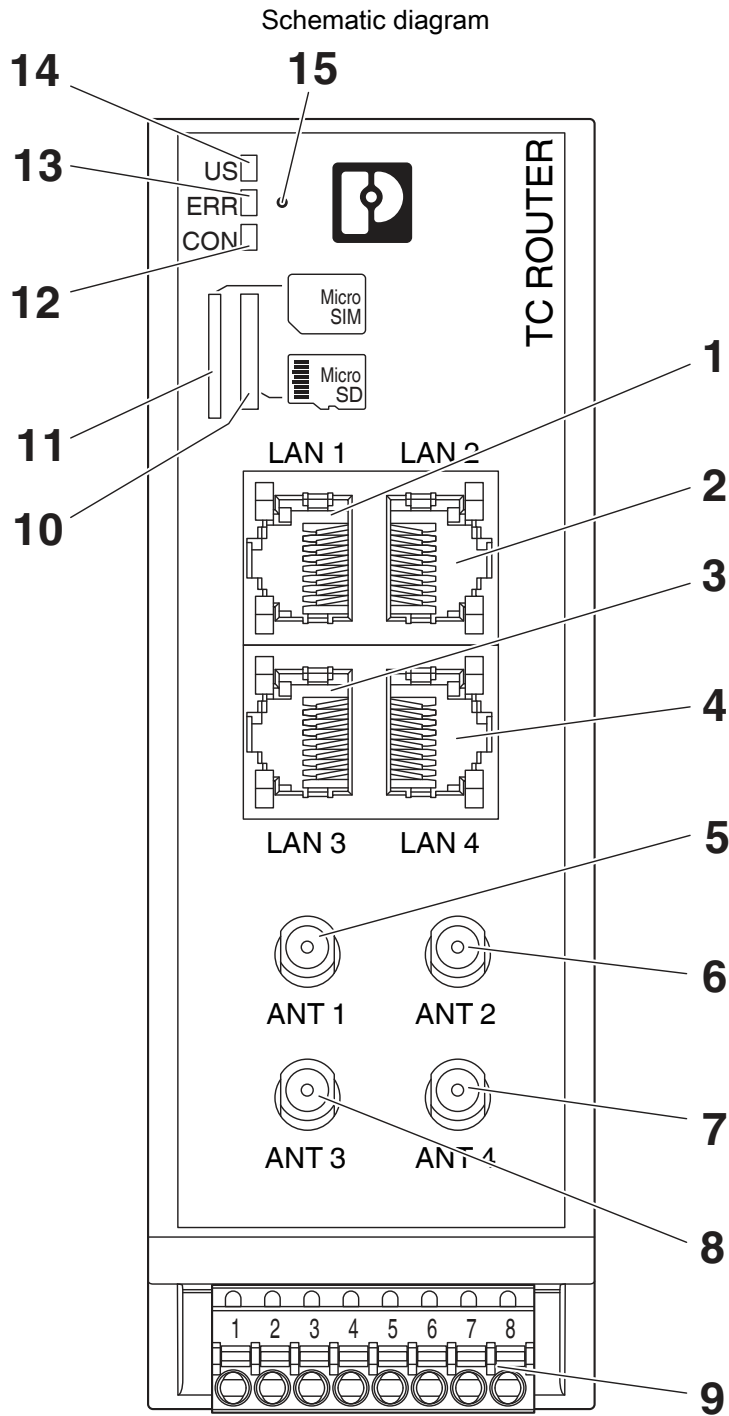
Switching inputs and outputs



# TC ROUTER 5004T-5G EU - Router

1439475

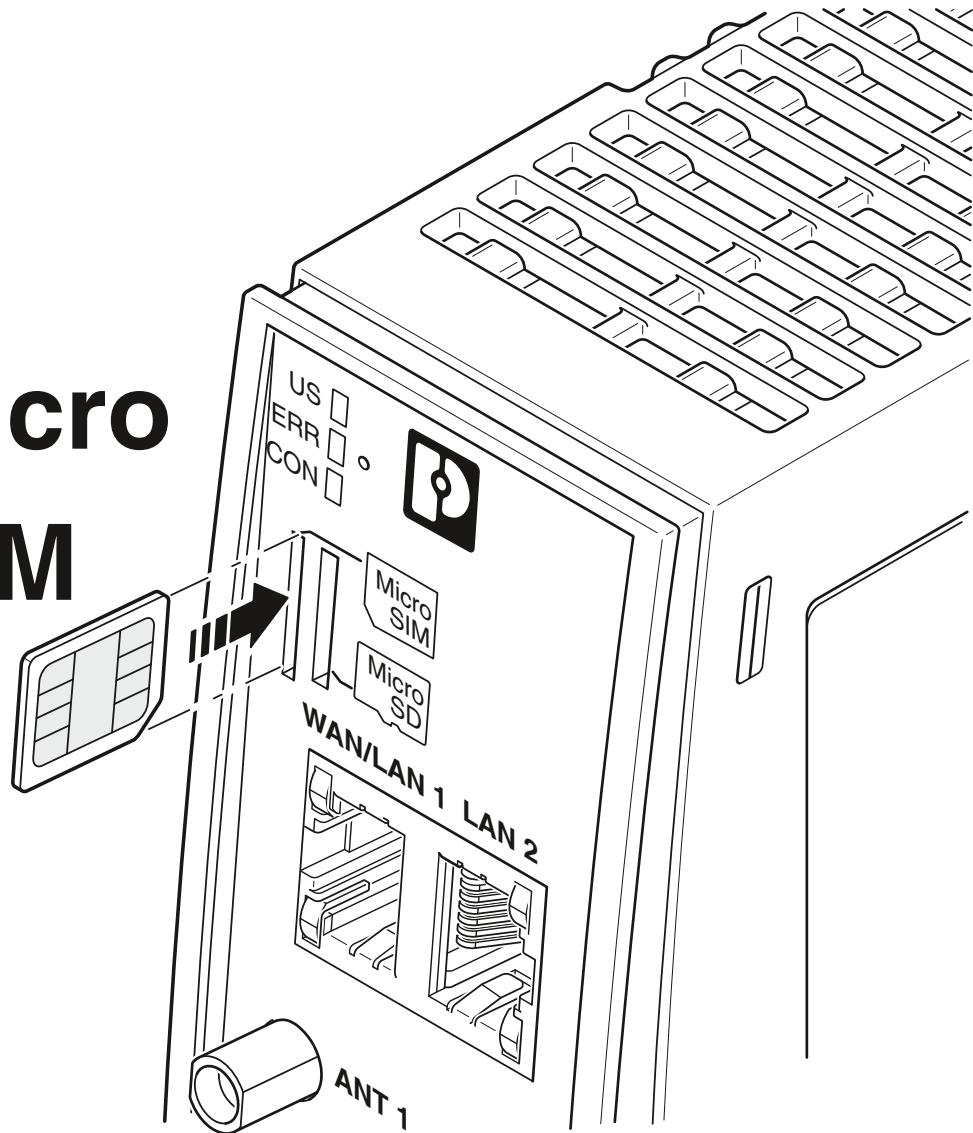
<https://www.phoenixcontact.com/gb/products/1439475>



Front view

Schematic diagram

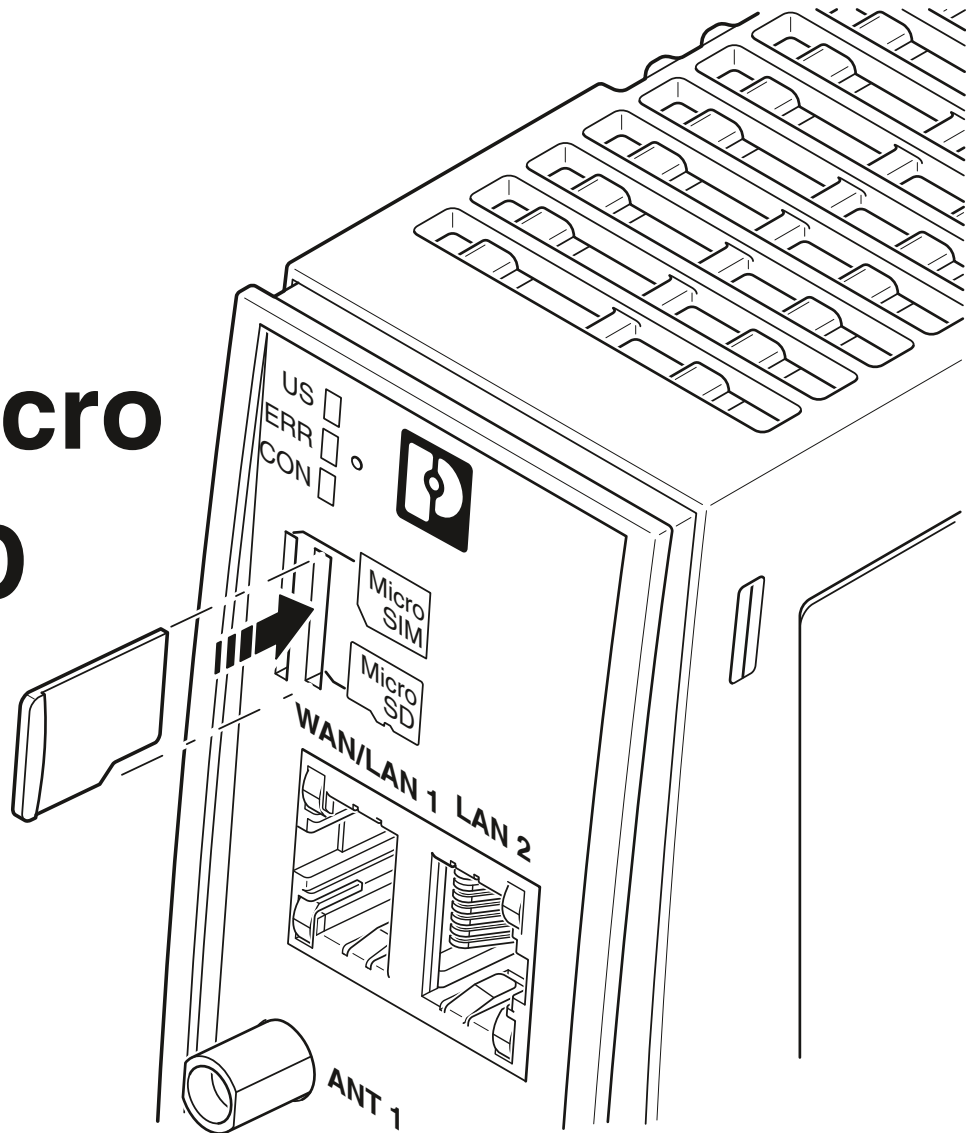
# Micro SIM



Insert SIM card

Schematic diagram

# Micro SD



Insert SD card

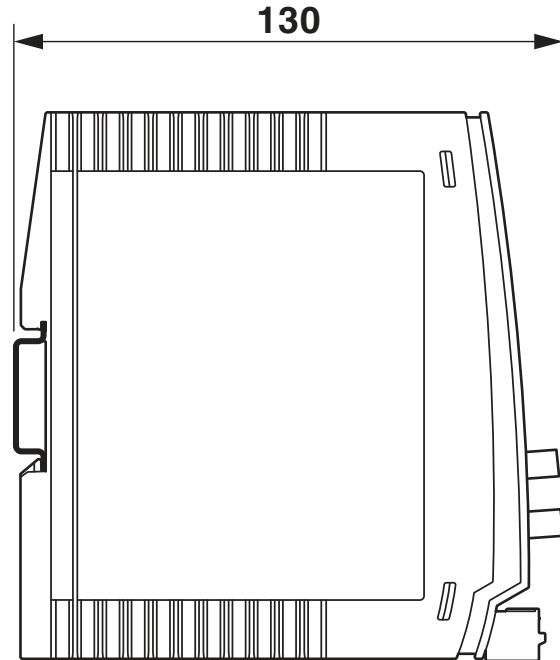
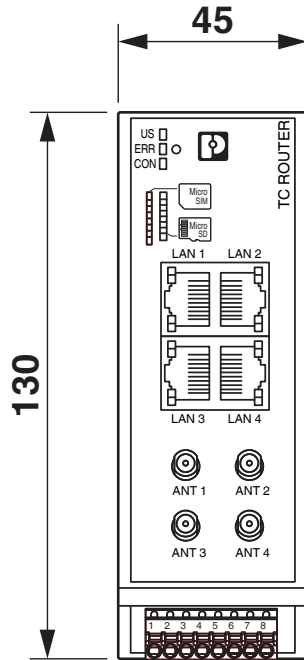
# TC ROUTER 5004T-5G EU - Router



1439475

<https://www.phoenixcontact.com/gb/products/1439475>

Dimensional drawing



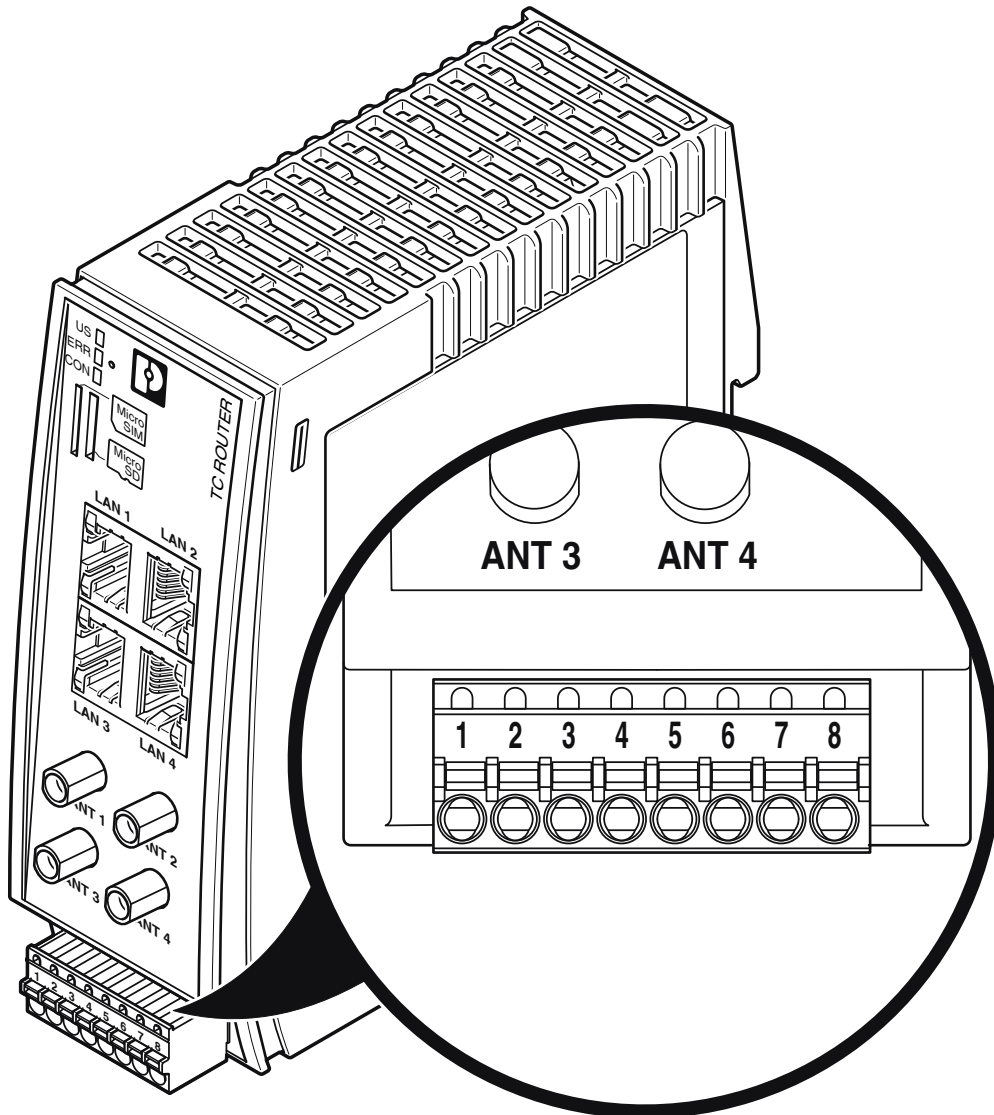
Dimensions

# TC ROUTER 5004T-5G EU - Router

1439475

<https://www.phoenixcontact.com/gb/products/1439475>

Schematic diagram



Device connections

# TC ROUTER 5004T-5G EU - Router



1439475

<https://www.phoenixcontact.com/gb/products/1439475>

## Classifications

### ECLASS

ECLASS-11.0	19170502
ECLASS-12.0	19170502
ECLASS-13.0	19170502

# TC ROUTER 5004T-5G EU - Router



1439475

<https://www.phoenixcontact.com/gb/products/1439475>

## Accessories

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

2903147

<https://www.phoenixcontact.com/gb/products/2903147>



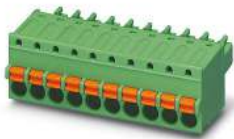
Primary-switched TRIO POWER power supply with push-in connection for DIN rail mounting, input: 1-phase, output: 24 V DC/3 A C2LPS

---

### FK-MCP 1,5/ 8-ST-3,81 GY7035 - PCB connector

1713311

<https://www.phoenixcontact.com/gb/products/1713311>



PCB connector, nominal cross section: 1.5 mm<sup>2</sup>, color: light grey, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, 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: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

## TC ROUTER 5004T-5G EU - Router

1439475

<https://www.phoenixcontact.com/gb/products/1439475>



## MGUARD SECURE VPN CLIENT LIC - License

2702579

<https://www.phoenixcontact.com/gb/products/2702579>



License for mGuard Secure VPN Client v11.x

---

## TC ANT MOBILE WALL 5M - Antenna

2702273

<https://www.phoenixcontact.com/gb/products/2702273>



Multiband omnidirectional antenna for wall or mast mounting, 0.6 GHz ... 6 GHz, gain: 3 dBi ... 7 dBi, degree of protection: IP66, connection: SMA (male), incl. 5 m connecting cable, mounting bracket, and mast clamps



# TC ROUTER 5004T-5G EU - Router

1439475

<https://www.phoenixcontact.com/gb/products/1439475>

## ANT-OMNI-0671-01 - Antenna

1396316

<https://www.phoenixcontact.com/gb/products/1396316>



Multiband omnidirectional antenna for wall or mast mounting, 0.6 GHz ... 7.1 GHz, gain: 1 dBi ... 3 dBi, degree of protection: IP67, seawater-resistant, connection: N (female), incl. mounting bracket and mast clamps

---

## ANT-OMNI-0671-02 - Antenna

1396318

<https://www.phoenixcontact.com/gb/products/1396318>



Multiband omnidirectional antenna with protection against vandalism for control cabinet mounting, frequency band: 0.6 GHz ... 7.1 GHz, gain: 2 dBi ... 4 dBi, degree of protection: IP67, shockproof: IK10, seawater-resistant, connection: N (female)

# TC ROUTER 5004T-5G EU - Router

1439475

<https://www.phoenixcontact.com/gb/products/1439475>

## ANT-OMNI-0671-03 - Antenna

1565400

<https://www.phoenixcontact.com/gb/products/1565400>



Multiband omnidirectional antenna for installation in plastic control cabinets not visible from the outside, frequency band: 0.6 GHz ... 7.1 GHz, gain: 1 dBi .... 2 dBi, connection: SMA (male), antenna connector with 90° articulated joint

---

## NBC-COX-CNM/0.5-S/COX-CKM - Coaxial cable

1340139

<https://www.phoenixcontact.com/gb/products/1340139>



Coaxial cable, 50  $\Omega$ , length: 0.5 m, N(m) - SMA(m), external cable diameter: 2.8 mm, transmission frequency:  $\leq 7.25$  GHz, typical attenuation: 800 MHz 0.4 dB, 2.4 GHz 0.7 dB, 5.8 GHz 1.1 dB, 7.25 GHz 1.5 dB

# TC ROUTER 5004T-5G EU - Router

1439475

<https://www.phoenixcontact.com/gb/products/1439475>

## NBC-COX-CNM/1.0-M/COX-CKM - Coaxial cable

1340143

<https://www.phoenixcontact.com/gb/products/1340143>



Coaxial cable, 50  $\Omega$ , length: 1 m, N(m) - SMA(m), external cable diameter: 4.9 mm, transmission frequency:  $\leq 7.25$  GHz, typical attenuation: 800 MHz 0.5 dB, 2.4 GHz 0.8 dB, 5.8 GHz 1.2 dB, 7.25 GHz 1.4 dB

---

## NBC-COX-CNM/3.0-M/COX-CKM - Coaxial cable

1340144

<https://www.phoenixcontact.com/gb/products/1340144>



Coaxial cable, 50  $\Omega$ , length: 3 m, N(m) - SMA(m), external cable diameter: 4.9 mm, transmission frequency:  $\leq 7.25$  GHz, typical attenuation: 800 MHz 1.4 dB, 2.4 GHz 2.3 dB, 5.8 GHz 3.6 dB, 7.25 GHz 4.2 dB

# TC ROUTER 5004T-5G EU - Router



1439475

<https://www.phoenixcontact.com/gb/products/1439475>

## NBC-COX-CNM/5.0-M/COX-CKM - Coaxial cable

1340147

<https://www.phoenixcontact.com/gb/products/1340147>



Coaxial cable, 50  $\Omega$ , length: 5 m, N(m) - SMA(m), external cable diameter: 4.9 mm, transmission frequency:  $\leq 7.25$  GHz, typical attenuation: 800 MHz 2.3 dB, 2.4 GHz 3.8 dB, 5.8 GHz 6 dB, 7.25 GHz 7.3 dB

---

## RAD-CAB-EF393- 3M - Antenna cable

2867649

<https://www.phoenixcontact.com/gb/products/2867649>



Antenna cable, outside diameter: 10 mm (0.4 in.), inner conductor: stranded, attenuation: 1.0 / 1.8 / 3.1 dB at 0.9 / 2.4 / 5.8 GHz, connection: 2 x N (male), cable length: 3 m (10 ft.)

# TC ROUTER 5004T-5G EU - Router



1439475

<https://www.phoenixcontact.com/gb/products/1439475>

## RAD-CAB-EF393- 5M - Antenna cable

2867652

<https://www.phoenixcontact.com/gb/products/2867652>



Antenna cable, outside diameter: 10 mm (0.4 in.), inner conductor: stranded, attenuation: 1.6 / 2.9 / 5.0 dB at 0.9 / 2.4 / 5.8 GHz, connection: 2 x N (male), cable length: 5 m (16 ft.)

---

## RAD-CAB-EF393-10M - Antenna cable

2867665

<https://www.phoenixcontact.com/gb/products/2867665>



Antenna cable, outside diameter: 10 mm (0.4 in.), inner conductor: stranded, attenuation: 2.9 / 5.6 / 9.9 dB at 0.9 / 2.4 / 5.8 GHz, connection: 2 x N (male), cable length: 10 m (32 ft.)

# TC ROUTER 5004T-5G EU - Router



1439475

<https://www.phoenixcontact.com/gb/products/1439475>

## RAD-CAB-EF393-15M - Antenna cable

2885634

<https://www.phoenixcontact.com/gb/products/2885634>

Antenna cable, outside diameter: 10 mm (0.4 in.), inner conductor: stranded, attenuation: 4.3 / 8.3 / 14.8 dB at 0.9 / 2.4 / 5.8 GHz, connection: 2 x N (male), cable length: 15 m (50 ft.)



---

## CN-UB-70DC-6-BB - Surge protection device

2803166

<https://www.phoenixcontact.com/gb/products/2803166>

Attachment plug with surge protection for coaxial signal interfaces. Connection: N connector, female/female



# TC ROUTER 5004T-5G EU - Router

1439475

<https://www.phoenixcontact.com/gb/products/1439475>



## RAD-ADP-N/F-N/F - Adapter

2867843

<https://www.phoenixcontact.com/gb/products/2867843>

Antenna adapter for control cabinet feed-through, frequency range: 0.3 GHz ...  
6 GHz, degree of protection: IP65, connection: 2 x N (female)



## RAD-TAPE-SV-19-3 - Weather protection tape

2903182

<https://www.phoenixcontact.com/gb/products/2903182>

Vulcanizing sealing tape for external protection of adapters, cable connections,  
etc. against the effects of weather, roll length: 3 m



Phoenix Contact 2023 © - all rights reserved  
<https://www.phoenixcontact.com>

PHOENIX CONTACT Ltd  
Halesfield 13, Telford  
Shropshire, TF7 4PG  
01952 681700  
[info@phoenixcontact.co.uk](mailto:info@phoenixcontact.co.uk)