

Router - TC MGUARD RS2000 3G VPN - 2903441

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Security device with mobile phone interface. SD card slot. 2 VPN tunnels, 2-click firewall for easy configuration, router with NAT/1:1 NAT. 4-port switch. 2 SIM card slots. GPS receiver.

Product Features

- Maximum security
- Maximum performance
- Central management tool



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	980.0 g
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	45 mm
Height	130 mm
Depth	114 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Altitude	5000 m (For restrictions see manufacturer's declaration)

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Technical data

Ambient conditions

Degree of protection	IP20
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General

Electrical isolation	VCC // PE
Test voltage data interface/data interface	1 kV (50 Hz, 1 min.)
Test voltage data interface/power supply	1 kV (50 Hz, 1 min.)
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Net weight	949 g
Housing material	Metal
Color	silver
MTTF	634 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	295 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))
	125 Years (Telcordia standard, temperature 40 °C, operating cycle 100 % (7 days a week, 24 hours a day))
Conformance	CE-compliant
UL, USA	Class I, Zone 2, AEx nA IIC T4
UL, USA / Canada	Class I, Div. 2, Groups A, B, C, D
UL, Canada	Class I, Zone 2, Ex nA IIC T4 Gc X

Power supply

Supply voltage range	11 V DC ... 36 V DC (via pluggable COMBICON screw terminal block)
Max. current consumption	< 800 mA (at 11 V DC (incl. 3 x 50 mA for the outputs))
Typical current consumption	< 200 mA (24 V DC)
	< 90 mA (stand by)
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

Serial interface

Interface 1	Ethernet interface, 10/100BASE-T(X) in acc. with IEEE 802.3u
Interface	Ethernet
Connection method	RJ45
Transmission length	100 m (shielded twisted pair)
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²

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Serial interface

Conductor cross section AWG min.	24
Conductor cross section AWG max.	14
Protocols supported	TCP/IP, UDP/IP, FTP, HTTP
Auxiliary protocols	ARP, DHCP, PING (ICMP), SNMP V1, SMTP
Basic functions	Router with simplified 2-click firewall and VPN for 2 tunnels (fixed), metal housing, slot for any SD memory card
Interface 2	V.24 (RS-232) interface in acc. with ITU-T V.28, EIA/TIA-232, DIN 66259-1
Interface	RS-232
Connection method	D-SUB-9 plug
File format/coding	UART/NRZ: 8 Data, 1/2 Stop, None/Even/Odd Parity
Transmission length	15 m
Data flow control/protocols	Software handshake, Xon/Xoff or hardware handshake RTS/CTS
Serial transmission speed	9.6; 19.2; 38.4; 57.6; 115.2 kbps

Radio interface

Interface description	GSM / GPRS / EDGE / UMTS / CDMA2000
Frequency	850 MHz (2 W (EGSM))
	900 MHz (2 W (EGSM))
	1800 MHz (1 W (EGSM))
	1900 MHz (1 W (EGSM))
	800 MHz (0.25 W (UMTS))
	850 MHz (0.25 W (UMTS))
	900 MHz (0.25 W (UMTS))
	1900 MHz (0.25 W (UMTS))
	2100 MHz (0.25 W (UMTS))
	800 MHz (CDMA2000 EV-DO)
	1900 MHz (CDMA2000 EV-DO)
Data rate	≤ 14.4 Mbps (HSDPA)
	≤ 5.7 Mbps (HSUPA)
	≤ 3.1 Mbps (DL CDMA2000)
	≤ 1.8 Mbps (UL CDMA2000)
Antenna	50 Ω impedance SMA antenna socket
SIM interface 1	1.8 volt, 3 volt
SIM interface 2	1.8 volt, 3 volt
GPRS	Class 12, Class B
	CS1 ... CS4
EDGE	Multislot Class 12
UMTS	HSPA 3GPP R6

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Radio interface

Network function	4 time slots for receiving data, 4 time slots for transmitting data. The PIN is saved in the modem. After a voltage interruption, there is automatic redialing into the network. Integrated TCP/IP stack, firewall and VPN support, independent connection establishment.
Network check	LED bar graph to display receive quality
Protocols supported	GPS (Global Positioning System), GLONASS

Function

Management	Web-based management, SNMP
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Digital outputs

Output name	Digital output
Number of outputs	3
Voltage output signal	10 V DC ... 30 V DC (depending on the operating voltage)
Current output signal	≤ 250 mA (Short-circuit-proof)

Digital inputs

Description of the input	Digital input
Number of inputs	3
Voltage input signal	10 V DC ... 30 V DC
Current input signal	5 mA

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Type of test	Free fall in acc. with IEC 60068-2-32
Test result	1 m
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	Operation: 15g, 11 ms period, half-sine shock pulse
Type of test	Shock in acc. with EN 60068-2-27/IEC 60068-2-27
Test result	Storage: 30g, 11 ms period, half-sine shock pulse
Free from substances that could impair the application of coating	according to P-VW 3.10.7 57 65 0 VW-AUDI-Seat central standard
Standards/regulations	EN 61000-4-2
	EN 61000-4-3
	EN 61000-4-4
	EN 61000-4-5
	EN 61000-4-6
Conformance	CE-compliant
UL, USA	Class I, Zone 2, AEx nA IIC T4

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Technical data

Standards and Regulations

UL, USA / Canada	Class I, Div. 2, Groups A, B, C, D
UL, Canada	Class I, Zone 2, Ex nA IIC T4 Gc X

Classifications

eCl@ss

eCl@ss 4.0	27230207
eCl@ss 4.1	27230207
eCl@ss 5.0	27230207
eCl@ss 5.1	27230207
eCl@ss 6.0	27230207
eCl@ss 7.0	27230207
eCl@ss 8.0	19170103

ETIM

ETIM 3.0	EC000310
ETIM 4.0	EC000740
ETIM 5.0	EC001478

UNSPSC

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

Approvals

Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

UL Listed / cUL Listed / cULus Listed

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Approvals

Approvals submitted

Approval details

UL Listed 

cUL Listed 

cULus Listed 

Accessories

Accessories

Antenna

Antenna - TC ANT MOBILE/GPS - 2903590



Combined mobile phone GPS antenna with omnidirectional characteristic, 2 m antenna cable with SMA round plug (GSM/UMTS) and R-SMA round plug (GPS)

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



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

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Accessories

Antenna - TC ANT MOBILE WALL 5M - 2702273



Multiband mobile phone antenna with mounting bracket for outdoor installation. 5 m antenna cable with SMA round plug

Coaxial cable

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



GSM/UMTS antenna cable, 5 m long; SMA (male) -> SMA (female), 50 Ohm impedance

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



GSM/UMTS antenna cable, 10 m long; SMA (male) -> SMA (female), 50 Ohm impedance

Media converter

FO converters - FL MC EF 1300 MM SC - 2902853



FO converter with SC duplex fiber optic connection (1300 nm), for converting 10/100Base-T(X) to multi-mode fiberglass (50/125 μm). Auto negotiation and auto MDI(X) function. Comprehensive link diagnostics. DIN-rail mountable, 18 ... 30 V DC supply.

Parameterization memory

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Accessories

Memory - SD FLASH 512MB - 2988146



Program and configuration memory, plug-in, 512 Mbyte.

Patch cable

Patch cable - FL CAT5 PATCH 0,5 - 2832263



Patch cable, CAT5, assembled, 0.5 m

Patch cable - FL CAT5 PATCH 2,0 - 2832289



Patch cable, CAT5, assembled, 2.0 m

Patch cable - FL CAT5 PATCH 10,0 - 2832629



Patch cable, CAT5, assembled, 10.0 m

Plug

RJ45 connector - FL PLUG RJ45 GR/2 - 2744856



RJ45 connector, shielded, with bend protection sleeve, 2 pieces, gray for straight cables, for assembly on site. For connections that are not crossed, it is recommended that you use the connector set with gray bend protection sleeve.

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Accessories

RJ45 connector - FL PLUG RJ45 GN/2 - 2744571



RJ45 connector, shielded, with bend protection sleeve, 2 pieces, green for crossed cables, for assembly on site. For connections that are crossed, it is recommended that the connector set with green bend protection sleeves is used.

Protective cap

Dust protection - FL RJ45 PROTECT CAP - 2832991



Dust protection caps for RJ45 socket

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.

Universal tools

Assembly tool - FL CRIMPTOOL - 2744869

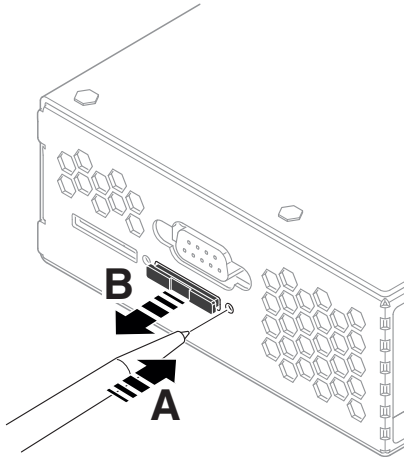


Crimping pliers, for assembling the RJ45 plugs FL PLUG RJ45..., for assembly on site

Drawings

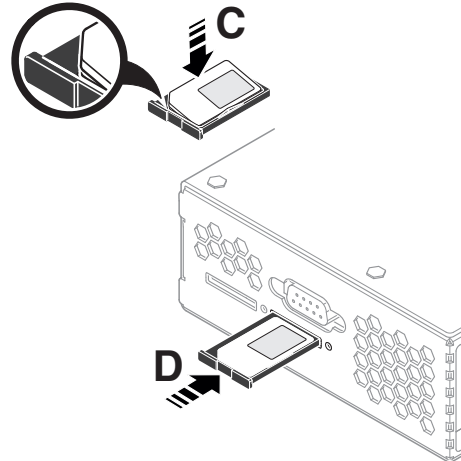
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Schematic diagram



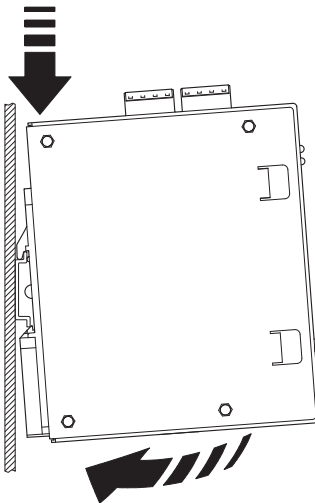
Remove SIM card holder

Schematic diagram



Insert the SIM card

Schematic diagram



Assembly