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Bluetooth PROFIBUS SET, pre-configured: PROFIBUS point-to-point, PROFIBUS baud rate: 187.5 kbps, integrated path diagnostics: bar graph + two digital outputs, contents: 2 x Bluetooth converter + 2 x antenna

#### **Product Description**

The products are offered exclusively for export outside the EU and the European Economic Area.

#### Your advantages

- PROFIBUS data rate of 187.5 kbps
- ☑ Plug and play startup without configuration
- ☑ Wireless diagnostics by means of bar graph and digital outputs



## **Key Commercial Data**

Packing unit	1 pc
GTIN	4 046356 568913
GTIN	4046356568913
Weight per Piece (excluding packing)	500.000 g
Custom tariff number	85176200
Country of origin	Germany

### Technical data

#### Note

Trade restriction	The products are offered exclusively for export outside the EU and the European Economic Area.

#### **Dimensions**

01/03/2021 Page 1 / 11



## Technical data

#### **Dimensions**

Width	22.5 mm
Height	99 mm
Depth	116 mm

#### Ambient conditions

Ambient temperature (operation)	-20 °C 60 °C
Ambient temperature (storage/transport)	-40 °C 85 °C
Permissible humidity (operation)	10 % 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % 95 % (non-condensing)
Altitude	$\leq$ 5000 m (For restrictions, see the manufacturer's declaration for altitude operation)
Degree of protection	IP20
Noise immunity	EN 61000-6-2:2005

### General

Electrical isolation	VCC // Bluetooth, RS-232, RS-422, RS-485, USB
Test voltage data interface/power supply	1.5 kV AC (50 Hz, 1 min.)
Electromagnetic compatibility	Conformance with R&TTE directive 1999/5/EC
Noise emission	EN 55011
Net weight	479.7 g
Housing material	PA 6.6-FR
Color	green
MTBF	1153 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	262 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))
MTTF	2115 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	850 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	346 Years (SN 29500 standard, temperature 40°C, operating cycle 100%)
Wireless licences	Switzerland
	Turkey (The device may only be operated with Phoenix Contact antennas in accordance with the "Short Range Radio Devices (SRD) Regulations" Gazette No. 26464 dated March 16, 2007.)
	USA
	Belarus (Maximum transmission power of 25 mW (14 dBm) outside of buildings)
	South Korea

## Power supply

Nominal supply voltage	24 VAC ±20% (via pluggable COMBICON screw terminal block)

01/03/2021 Page 2 / 11



## Technical data

## Power supply

	24 VDC ±20% (as an alternative or redundant, via backplane bus contact and system current supply)
Supply voltage range	10 VDC 30 VDC (via pluggable COMBICON screw terminal block)
	19 VAC 29 VAC (via pluggable COMBICON screw terminal block)
Typical current consumption	≤ 100 mA (24VDC)

#### Interfaces

Interface 1	RS-485 interface, in acc. with EIA/TIA-485, DIN 66259-4/RS-485 2-wire
Interface	preconfigured
Connection method	COMBICON screw terminal block
File format/coding	8 data, 1 stop, 1 parity, 11 bit character length
Transmission length	≤ 1200 m
Termination resistor	390 $\Omega$ - 150 $\Omega$ - 390 $\Omega$ (can be connected)
Serial transmission speed	Preconfigured
	187500 bps

#### Wireless interface

Interface description	Bluetooth2.1 + EDR
Frequency range	2.402 GHz 2.48 GHz (ISM bandwidth)
Transmission method	1.6 kHz (FHSS)
Channel distance	1 MHz
Transmit capacity, minimum	0 dBm
Transmit capacity, maximum	14 dBm (Outside of Europe, adjustable via software)
	10 dBm (Europe, can be set via software)
	10 dBm (Default setting, adjustable)
Minimum receiver sensitivity	-91 dBm
Antenna	External
Connection method	MCX
Country support	Switzerland
	Turkey (The device may only be operated with Phoenix Contact antennas in accordance with the "Short Range Radio Devices (SRD) Regulations" Gazette No. 26464 dated March 16, 2007.)
	USA
	Belarus (Maximum transmission power of 25 mW (14 dBm) outside of buildings)
	South Korea

## Standards and Regulations

Electromagnetic compatibility	Conformance with R&TTE directive 1999/5/EC
Type of test	Free fall in acc. with IEC 60068-2-32

01/03/2021 Page 3 / 11



## Technical data

## Standards and Regulations

Test result	1 m
Type of test	Vibration resistance in acc. with EN60068-2-6/IEC60068-2-6
Test result	5g, 10150 Hz, 2.5 h, in XYZ direction
Type of test	Shock in acc. with EN60068-2-27/IEC60068-2-27
Test result	15g, 11 ms period, half-sine shock pulse
Noise emission	EN 55011
Noise immunity	EN 61000-6-2:2005
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
Contact discharge	± 6 kV
Standards/regulations	EN61000-4-3
Frequency range	80 MHz 3 GHz
Standards/regulations	EN61000-4-4
Comments	Criterion B
Standards/regulations	EN61000-4-5
Signal	± 1 kV
Standards/regulations	EN55032
	EN61000-4-6
	FCC Part 15.247 / ISC RSS 210
	•

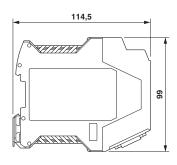
## **Environmental Product Compliance**

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

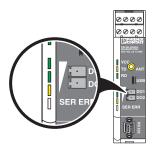
## Drawings

### Dimensional drawing





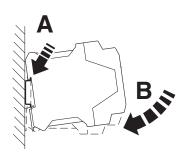
### Schematic diagram



Diagnostic and status indicators



#### Schematic diagram



Mounting

#### Articles in set

Bluetooth converter - PSI-WL-RS232-RS485/BT/2DO - 2313805

Bluetooth converter, wireless transmission: RS-232/RS-422/RS-485 2-wire, mounting on EN DIN rails, MCX connection for external antenna, integrated path diagnostics: bar graph + two digital outputs

#### Antenna - RAD-ISM-2400-ANT-OMNI-2-1 - 2867461



Omnidirectional antenna, 2.4GHz, gain: 2dBi, polarization: linear, opening angle: h/v 360°/75°, degree of protection: IP65, connection: MCX (male), incl. 1.5m / 5ft. connecting cable and mounting bracket for wall mounting

### Classifications

### eCl@ss

eCl@ss 4.0	27250313
eCl@ss 4.1	27250313
eCl@ss 5.0	27242214
eCl@ss 5.1	27242200
eCl@ss 6.0	19179200
eCl@ss 7.0	19179290
eCl@ss 8.0	19179290
eCl@ss 9.0	19179290

01/03/2021 Page 5 / 11



#### Classifications

#### **ETIM**

ETIM 3.0	EC001467
ETIM 4.0	EC001467
ETIM 5.0	EC000310
ETIM 6.0	EC000310

#### **UNSPSC**

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	43222604
UNSPSC 19.0	43222604

#### Accessories

#### Accessories

#### Antenna

#### Antenna - RAD-ISM-2400-ANT-OMNI-2-1 - 2867461



Omnidirectional antenna, 2.4GHz, gain: 2dBi, polarization: linear, opening angle: h/v 360°/75°, degree of protection: IP65, connection: MCX (male), incl. 1.5m / 5ft. connecting cable and mounting bracket for wall mounting

#### Antenna - RAD-ISM-2400-ANT-VAN- 3-1-MCX - 2885702



Omnidirectional antenna with protection against vandalism, 2.4GHz, gain: 3dBi, polarization: linear, opening angle: h/v 360°/85°, degree of protection: IP55, connection: MCX (male), for control cabinet mounting (optional wall mounting), incl. 1.5m / 5ft. connecting cable

#### Antenna - RAD-ISM-2400-ANT-OMNI-6-0 - 2885919



Omnidirectional antenna, 2.4GHz, gain: 6dBi, polarization: linear, opening angle: h/v 360°/30°, degree of protection: IP67, seawater-resistant, connection: N (female), incl. mounting bracket and mast clamps, ATEX and IECEx approval

01/03/2021 Page 6 / 11



#### Accessories

Antenna - ANT-DIR-2459-01 - 2701186



Directional antenna, 2.4 GHz/5 GHz, gain: 9 dBi, polarization: linear, opening angle: h/v 75°/55°, degree of protection: IP67, seawater-resistant, connection: N (female), incl. mounting bracket and mast clips, ATEX and IECEx approval

### Antenna - RAD-ISM-2400-ANT-PAN- 8-0 - 2867610



Directional antenna, 2.4 GHz, gain: 8 dBi, polarization: linear, opening angle: h/v 75°/70°, degree of protection: IP55, connection: SMA (female), incl. mounting bracket and mast clips

#### Antenna - RAD-ISM-2400-ANT-PAR-19-0 - 2867885



Directional antenna, 2.4 GHz, gain: 19 dBi, polarization: linear, opening angle: h/v 17°/11°, degree of protection: IP65, connection: N (female), incl. mounting bracket and mast clips

#### Arrester test system

Cable - CM-KBL-RS232/USB - 2881078



Connecting cable D-9-SUB to USB, with adapter D-9-SUB to D-25-SUB.

#### Coaxial adapter



#### Accessories

Adapter - RAD-ADP-SMA/F-SMA/F - 2884541



Antenna adapter for control cabinet feed-through, frequency range: 0.3 GHz ... 6 GHz, connection: 2 x SMA (female)

Adapter - RAD-ADP-N/M-SMA/F - 2917036



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

#### Coaxial cable

Antenna cable - RAD-CAB-EF142-3M - 2884512



Antenna cable, outside diameter: 5mm (0.2in.), inner conductor: stranded, attenuation: 1.7 / 3.0 / 4.8dB at 0.9 / 2.4 / 5.8GHz, connection:  $2 \times SMA$  (male), cable length: 3m (10ft.)

Antenna cable - RAD-CAB-EF142-5M - 2884525



Antenna cable, outside diameter: 5mm (0.2in.), inner conductor: stranded, attenuation: 2.8 / 4.9 / 7.8dB at 0.9 / 2.4 / 5.8GHz, connection: 2 x SMA (male), cable length: 5m (16ft.)

Antenna cable - RAD-CAB-EF393- 3M - 2867649



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

01/03/2021 Page 8 / 11



#### Accessories

Antenna cable - RAD-CAB-EF393- 5M - 2867652



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

Antenna cable - RAD-CAB-EF393-10M - 2867665



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

Antenna cable - RAD-CAB-EF393-15M - 2885634



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

Antenna cable - RAD-PIG-EF316-MCX-SMA - 2867678

Antenna cable, external diameter: 3.2mm (0.126 in.), inner conductor: flexible, attenuation: 1.0 / 1.7 / 2.7dB at 0.9 / 2.4 / 5.8GHz, connection: MCX (male) -> SMA (male), cable length: 1m (4ft.)

Antenna cable - RAD-PIG-EF316-MCX-N - 2867681

Antenna cable, outside diameter: 3.2mm (0.126in.), inner conductor: stranded, attenuation: 0.6 / 1.0 / 1.4dB at 0.9 / 2.4 / 5.8GHz, connection: MCX (male) -> N (male), cable length: 0.5m (1.6ft.)

01/03/2021 Page 9 / 11



#### Accessories

Antenna cable - RAD-PIG-EF316-N-SMA - 2867694



Antenna cable, outside diameter: 3.2mm (0.126in.), inner conductor: stranded, attenuation: 0.5 / 0.7 / 0.9dB at 0.9 / 2.4 / 5.8GHz, connection: SMA (male) -> N (female), cable length: 0.3m (1ft.)

Antenna cable - RAD-PIG-EF316-N-N - 2867704

Adapter cable, 50 cm pigtail, N (male) -> N (female), 50 Ω impedance

#### Data plug

D-SUB bus connector - SUBCON 9/F-SH - 2761499



D-SUB plug, 9-pos. female connector, one cable entry < 35°, universal type for all systems, pin assignment: 1, 2, 3, 4, 5, 6, 7, 8, 9 to screw connection terminal block

#### DIN rail connector

DIN rail bus connectors - ME 17,5 TBUS 1,5/ 5-ST-3,81 GN - 2709561



DIN rail connector for DIN rail mounting. Universal for TBUS housing. Gold-plated contacts, 5-pos.

DIN rail bus connectors - ME 22,5 TBUS 1,5/ 5-ST-3,81 GN - 2707437



DIN rail connector, color: green, nominal current: 8 A (parallel contacts), rated voltage (III/2): 125 V, Number of positions per row: 5, pitch: 3.81 mm, mounting: DIN rail mounting, Locking: without, type of packaging: packed in cardboard, Item with gold-plated contacts, bus connectors for connecting with electronics housings, 5 parallel contacts

01/03/2021 Page 10 / 11



#### Accessories

Interface converter

Bluetooth converter - PSI-WL-PROFIB/BT-SET/2DO - 2313876

Bluetooth PROFIBUS SET, pre-configured: PROFIBUS point-to-point, PROFIBUS baud rate: 187.5 kbps, integrated path diagnostics: bar graph + two digital outputs, contents: 2 x Bluetooth converter + 2 x antenna

#### Mounting material

Weather protection tape - RAD-TAPE-SV-19-3 - 2903182



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

#### Power supply

Power supply unit - MINI-SYS-PS-100-240AC/24DC/1.5 - 2866983



Primary-switched MINI POWER supply for DIN rail mounting, input: 1-phase, output: 24 V DC/1.5 A

#### Surge protection for transceiver systems

Surge protection device - CN-LAMBDA/4-5.9-BB - 2838490



Attachment plug with Lambda/4 technology as surge protection for coaxial signal interfaces. Connection: N connectors socket-socket

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