

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

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Bluetooth converter, wireless transmission: V.24 (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, cross-wiring of 24 V DC and RS-485 2-wire

### Product Features

- ✓ Local configuration via USB interface without separate power supply unit
- ✓ Multipoint with up to seven slaves
- ✓ Suitable for worldwide use thanks to adjustable transmission power (-28 ... 14 dBm)
- ✓ Wireless path diagnostics using integrated bar graphs and 2 digital outputs
- ✓ Secure and tamper-proof data transmission thanks to password protection, encryption, plus fixed and invisible device pairing
- ✓ Coexistence with other wireless systems due to the adaptive frequency hopping (AFH) method
- ✓ Can be used for RS-232/RS-422/RS-485 2-wire interfaces up to 187.5 kbps
- ✓ Transceiver for distances of up to 150 m
- ✓ Installation of parallel wireless paths by cross-wiring 24 V DC and RS-485



### Key commercial data

Packing unit	1 PCE
GTIN	 4 046356 567572
Custom tariff number	85176200
Country of origin	GERMANY

### Technical data

#### Dimensions

Width	22.5 mm
Height	99 mm
Depth	116 mm

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## Technical data

### Serial interface

Interface 1	V.24 (RS-232) interface in acc. with ITU-T V.28, EIA/TIA-232, DIN 66259-1
Interface	V.24 (RS-232)
Connection method	D-SUB-9 male connector
File format/coding	Serial asynchronous UART/NRZ, 8 data, 1/2 stop, 1 parity, 10/11-bit character length
Transmission length	≤ 15 m
Data flow control/protocols	Software handshake, Xon/Xoff, or hardware handshake RTS/CTS, 3964 compatible
Serial transmission speed	1.2; 2.4; 4.8; 7.2; 9.6; 19.2; 31.25; 38.4; 57.6; 75; 93.75; 115.2 kbps
Interface 2	RS-422 interface in acc. with ITU-T V.11, EIA/TIA-422, DIN 66348-1
Interface	RS-422
Connection method	Pluggable screw connection
Transmission length	≤ 1200 m
Termination resistor	390 Ω (configurable)
Termination resistor	180 Ω
Termination resistor	390 Ω
Serial transmission speed	1.2; 2.4; 4.8; 7.2; 9.6; 19.2; 31.25; 38.4; 57.6; 75; 93.75; 115.2; 136; 187.5 kbps
Interface 3	RS-485 interface, in acc. with EIA/TIA-485, DIN 66259-4/RS-485 2-wire
Interface	RS-485 2-wire
Connection method	Pluggable screw connection
Transmission length	≤ 1200 m
Termination resistor	390 Ω (configurable)
Termination resistor	180 Ω
Termination resistor	390 Ω
Serial transmission speed	1.2; 2.4; 4.8; 7.2; 9.6; 19.2; 31.25; 38.4; 57.6; 75; 93.75; 115.2; 136; 187.5 kbps
Interface 4	USB interface
Interface	USB
Connection method	Mini-USB B, socket

### Radio interface

Interface description	Bluetooth 2.0
Frequency range	2.402 GHz ... 2.48 GHz (ISM bandwidth)
Transmission method	1.6 kHz (FHSS)
Transmit capacity, minimum	-28 dBm (Can be set via software)
Transmit capacity, maximum	14 dBm (Can be set via software)
Minimum receiver sensitivity	-91.00 dBm
Antenna	External

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## Technical data

### Radio interface

Connection method	MCX socket
Range	≤ 150 m (14 dBm)
Bluetooth Multidrop master/slave	1/7

### Power supply

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

### General

Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (no condensation)
Permissible humidity (storage/transport)	5 % ... 95 % (no condensation)
Altitude	5000 m (For restrictions see manufacturer's declaration)
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
Noise immunity	EN 61000-6-2:2005
Degree of protection	IP20
Net weight	120 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))
MTBF	262 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))
Conformance	CE-compliant
UL, USA / Canada	cULus listed UL 508
FCC	Part 15, RSS 210

## Classifications

### ETIM

ETIM 3.0	EC001467
ETIM 4.0	EC001467

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## Classifications

### ETIM

ETIM 5.0	EC001467
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### UNSPSC

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

### eCl@ss

eCl@ss 4.0	27250313
eCl@ss 4.1	27250313
eCl@ss 5.0	27242214
eCl@ss 5.1	27242214
eCl@ss 6.0	19050110
eCl@ss 7.0	19050110

## Approvals

### Approvals

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Approvals

UL Listed / cUL Listed / cULus Listed

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Ex Approvals

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Approvals submitted

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### Approval details

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

### Approvals



### Accessories

#### Accessories

#### Antennas

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



Omnidirectional antenna, 2.4 GHz, 2 dBi, linear vertical, 1.5 m cable, MCX (male), IP65, 50  $\Omega$  impedance

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



Panel antenna, degree of protection IP55, 8 dBi gain, linear vertical, SMA (female), impedance 50 ohms, apex angle h/v 75°/70°

#### Cable/conductor

Data cable - PSM-KA9SUB9/BB/2METER - 2799474



RS-232 cable, 9-pos. D-SUB socket on 9-pos. D-SUB socket, 9-wire, 1:1

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### Accessories

Data cable - PSM-KA 9 SUB 25/BB/2METER - 2761059



RS-232 cable, 9-pos. D-SUB socket 25-pos on D-SUB socket

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Adapter cable - PSM-KAD-IL RS232/9SUB/B/0,8M - 2319200



Adapter cable to connect the IB IL RS232 and IB IL RS232-PRO Inline communication terminals to the interface converter, e.g. modem, Com server, Bluetooth or fiber optics.

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Cable for programming - PSI-CA-USB A/MINI B/1METER - 2313575



USB 2.0 cable, USB A male plug to mini-USB B male plug, length: 1 m

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### Plug/Adapter

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



Adapter cable, pigtail 100 cm MCX (male) -> SMA (male), insertion attenuation 1.5 dB at 2.4 GHz; impedance 50 ohms;

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



DIN rail power supply unit, primary-switched mode, slim design, output: 24 V DC / 1.5 A

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### Accessories

Cable - ME 22,5 TBUS 1,5/ 5-ST-3,81 GN - 2707437



DIN rail connector for current transducers, gold-plated contacts, for DIN rail mounting, 5-pos.

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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, cross-wiring of 24 V DC and RS-485 2-wire, contents: 2 x Bluetooth converter + 2 x antenna

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USB Bluetooth adapter - PSI-WL-PLUG-USB/BT - 2313083



Bluetooth-USB adapter for direct assembly on USB type A ports and wireless transmission from USB interfaces

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### Drawings

Functional drawing

