

# Wireless module - RAD-ISM-900-EN-BD-BUS - 2900017

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Wireless transceiver (transmitter and receiver) with Ethernet, RS-232, RS-485 interfaces and bus foot, for 900 MHz ISM band (America).  
This product is exclusively for export outside of the European Economic Area (EEA).


The figure shows version 2900016  
RAD-ISM-900-EN-BD

## Your advantages

- ✓ Secure data transmission with 128/192/256-bit AES encryption
- ✓ Includes a transmitter that can be set from 10 mW ... 1 W
- ✓ Supports TCP/IP, UDP, and IPv4 protocols
- ✓ Operates in the license-free 902 - 928 MHz ISM band
- ✓ Can be programmed for point-to-point, point-to-multipoint, and multipoint-to-point configurations
- ✓ Provides an interface for data transmission between a 900 MHz wireless transmission system and Ethernet, RS-232, RS-422 or RS-485 interfaces
- ✓ Frequency hopping spread spectrum



## Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 490115
GTIN	4046356490115
Weight per Piece (excluding packing)	380.100 g
Custom tariff number	85176200
Country of origin	United States
Note	Made to Order (non-returnable)

## Technical data

### Note

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

# Wireless module - RAD-ISM-900-EN-BD-BUS - 2900017

## Technical data

### Dimensions

Width	52 mm
Height	99 mm
Depth	115 mm

### Ambient conditions

Ambient temperature (operation)	-40 °C ... 65 °C
Ambient temperature (storage/transport)	-40 °C ... 75 °C
Degree of protection	IP20

### Wireless set

Set contents	1 transceiver
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### Wireless path

Direction	Bi-directional
Frequency range	902 MHz ... 928 MHz
Transmission power	1 W (adjustable in 1 dBm increments)
Transmit capacity, minimum	10 dBm
Transmit capacity, maximum	30 dBm

### Serial interface

Designation	RS-232
Data rate	300 ... 57,6 kBit/s
Connection method	D-SUB-9 female connector
File format/coding	Asynchronous
Data flow control/protocols	RTS/CTS
Designation	RS-485
Connection method	COMBICON plug-in screw terminal block

### Supply

Supply voltage	24 V DC
Supply voltage range	11 V DC ... 30 V DC
Max. current consumption	250 mA (at 24 V DC)

### General

Mounting position	any
Assembly instructions	on standard DIN rail NS 35 in accordance with EN 60715
Housing material	Polyamide PA non-reinforced with aluminum heatsink

### Connection data

Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	4 mm <sup>2</sup>
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	14

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### Connection data

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3

### Standards and Regulations

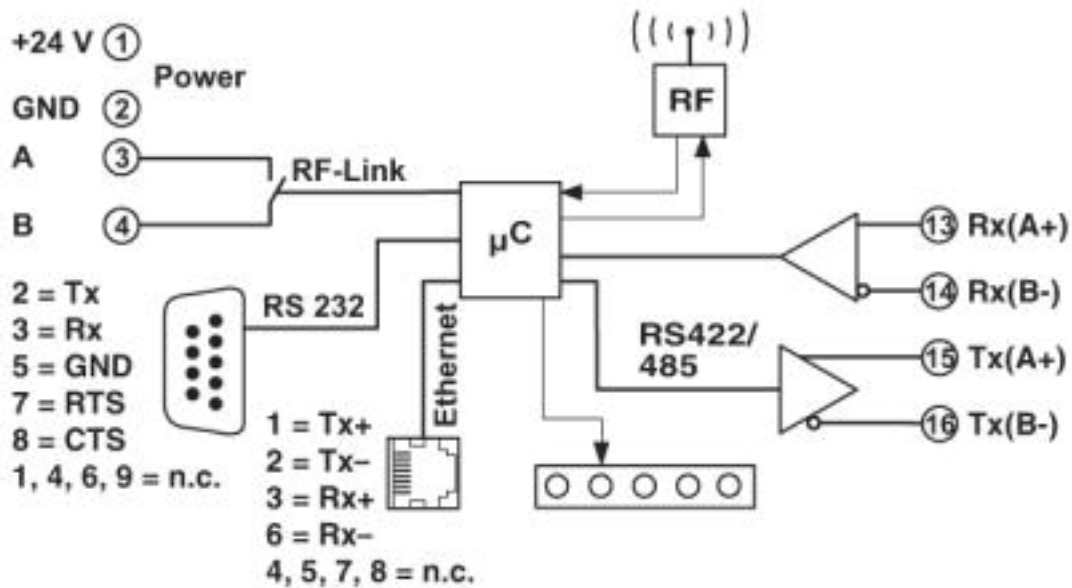
Conformance	FCC Directive, Part 15.247
	ISC Directive RSS 210
UL, USA/Canada	Class I, Div. 2, Groups A, B, C, D

### Environmental Product Compliance

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

## Drawings

Block diagram



## Classifications

eCl@ss

eCl@ss 10.0.1	19179290
eCl@ss 4.0	27250312
eCl@ss 4.1	27250312
eCl@ss 5.0	27242208
eCl@ss 5.1	27242200
eCl@ss 6.0	19179200

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## Classifications

### eCl@ss

eCl@ss 7.0	19179290
eCl@ss 8.0	19179290
eCl@ss 9.0	19179290

### ETIM

ETIM 2.0	EC000310
ETIM 3.0	EC000310
ETIM 4.0	EC000310
ETIM 5.0	EC000310
ETIM 6.0	EC000310
ETIM 7.0	EC000310

### UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	43223108
UNSPSC 11	39121008
UNSPSC 12.01	43223108
UNSPSC 13.2	43222604
UNSPSC 18.0	43222604
UNSPSC 19.0	43222604
UNSPSC 20.0	43222604
UNSPSC 21.0	43222604

## Accessories

### Accessories

#### Adapter cable

Antenna cable - RAD-CON-MCX90-N-SS - 2885207



Antenna cable, outside diameter: 2.5 mm (0.1 in.), inner conductor: stranded, attenuation: 0.9 dB at 900 MHz, connection: 90° MCX (male) -> N (male), cable length: 1.2 m (4 ft.)

### Antenna

Antenna - RAD-ISM-900-ANT-OMNI-0-6 - 2867160



Omnidirectional antenna, 900 MHz, gain: 2 dBi, polarization: linear, opening angle: h 360°, degree of protection: IP65, connection: MCX (male), incl. 2 m / 6.5 ft. connecting cable and mounting bracket for wall mounting

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#### Antenna - RAD-ISM-900-ANT-OMNI-FG-3-N - 2867791

Omnidirectional antenna, 900 MHz, gain: 5 dBi, polarization: linear, opening angle: h/v 360°/28°, degree of protection: IP65, connection: N (female), incl. mounting bracket and mast clips



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#### Antenna - RAD-ISM-900-ANT-YAGI-6.5-25-AS - 2867827

Panel antenna with surge protection, adapter cable MCX->N and assembly material, IP65 protection, gain 8.5 dBi, cable length 7.6 m, connection N (female)



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#### Antenna - RAD-ISM-900-ANT-YAGI-6.5-50-AS - 2867830

Panel antenna with surge protection, adapter cable MCX->N and assembly material, IP65 protection, gain 8.5 dBi, cable length 15.2 m, connection N (female)



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### Coaxial cable

#### Antenna cable - RAD-CAB-RG213-25 - 2867597

Antenna extension cable, length: 25 ft



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### Control box

#### Control cabinet - RAD-SYS-NEMA4X-900 - 2917188



NEMA 4X enclosure for wireless systems

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