

RAD-ISM-900-SET-UD-ANT - Wireless module



2867102

<https://www.phoenixcontact.com/us/products/2867102>

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Unidirectional, wireless, 900 MHz transmission system (America), made up of a transmitter (Tx) and a receiver (Rx) and two antennas with connecting cable



Your advantages

- Frequency hopping spread spectrum
- Conducted transmitters can either be supplied with 24 V DC or 120/240 V AC
- The receiver for DIN rail mounting is supplied with 24 V DC
- Two omnidirectional antennas
- Operates in the license-free 902 MHz ... 928 MHz ISM band
- The transmitter can be installed on a DIN rail or outdoors (IP65)
- Two pre-programmed transceivers that automatically communicate with each other

Commercial data

Item number	2867102
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	DN26
Product key	DNC651
Catalog page	Page 466 (C-8-2013)
GTIN	4017918929558
Weight per piece (including packing)	748 g
Weight per piece (excluding packing)	654.4 g
Customs tariff number	85176990
Country of origin	CA

Technical data

Product properties

Product type	Wireless module
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Electrical properties

Supply Receiver

Supply voltage	24 V DC (at U_B)
Supply voltage range	12 V DC ... 30 V DC
Typical current consumption	85 mA
Max. current consumption	125 mA

Supply Transmitter

Supply voltage	24 V DC
Supply voltage range	12 V DC ... 30 V DC
Typical current consumption	75 mA
Max. current consumption	350 mA

Input data

Digital

Input voltage range	5 V AC/DC ... 30 V AC/DC
Switching threshold "0" signal, voltage	max. 1.5 V DC
Switching threshold "1" signal voltage	min. 5 V DC

Analog

Description of the input	Current input (analog input)
Current input signal	4 mA ... 20 mA
Input resistance current input	< 150 Ω

Analog

Description of the input	Voltage input (digital input)
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Output data

Digital

Output name	2x relay output + 1 x RF link
Contact switching type	3 floating changeover contacts
Contact material	Ag, gold-plated
Maximum switching voltage	30 V DC 120 V AC
Limiting continuous current	0.5 A
Service life electrical	8x 10 ⁵ cycles at a switching current of 0.5 A
Mechanical service life	1x 10 ⁷

Analog

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Output name	Current output
Current output signal	4 mA ... 20 mA
Load/output load current output	700 Ω (at $U_B = 24$ V, $R_B = [U_B - 10$ V] / 20 mA)

Connection data

Connection method	Screw connection
Stripping length	8 mm
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section rigid	0.2 mm ² ... 2.5 mm ²
Cross section AWG	24 ... 14
Screw thread	M3

Interfaces

Wireless

Direction	Uni-directional
Number of channel groups	4
Number of channels per group	63

Wireless

Direction	Uni-directional
Frequency range	902 MHz ... 928 MHz
Number of channel groups	4
Number of channels per group	63
Transmission power	1 W

Wireless

Frequency band	900 MHz
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Dimensions

Width	17.5 mm
Height	99 mm
Depth	114.5 mm

Material specifications

Color	green
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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
	IP20
	IP20
Ambient temperature (operation)	-40 °C ... 70 °C
	-40 °F ... 158 °F
Ambient temperature (storage/transport)	-40 °C ... 85 °C

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Approvals

Conformity/Approvals

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

EMC data

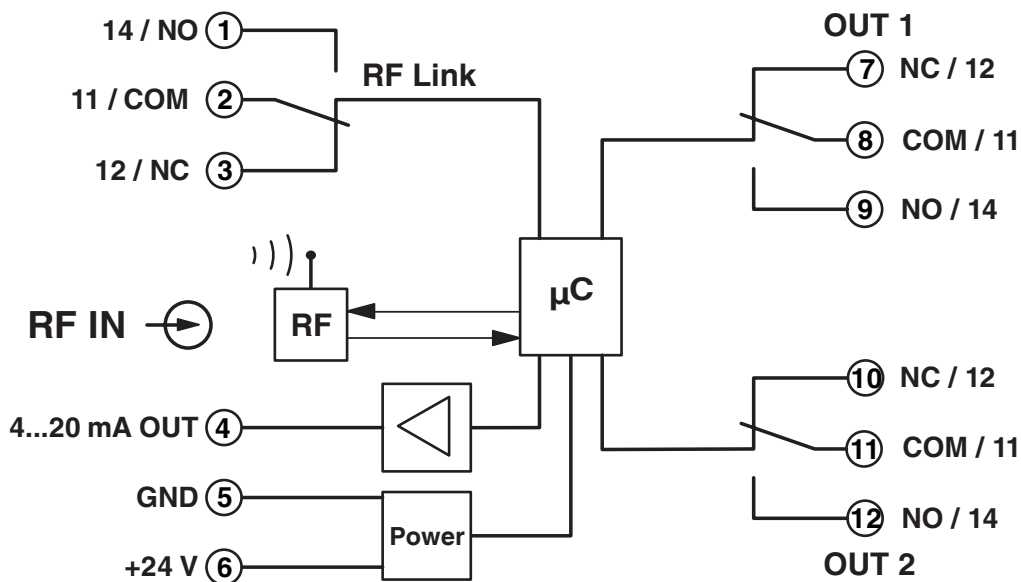
Electromagnetic compatibility	FCC Part 15.247 / ISC RSS 210
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Mounting

Assembly instructions	on standard DIN rail NS 35 in accordance with EN 60715
Mounting position	any
Connection method	Screw connection

Drawings

Block diagram



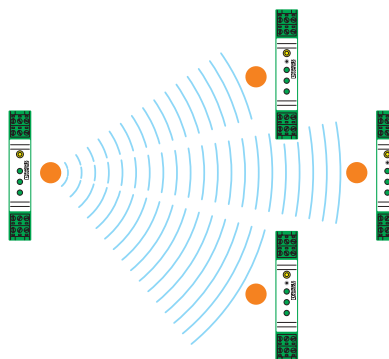
Receiver module

Application drawing

Point-to-point



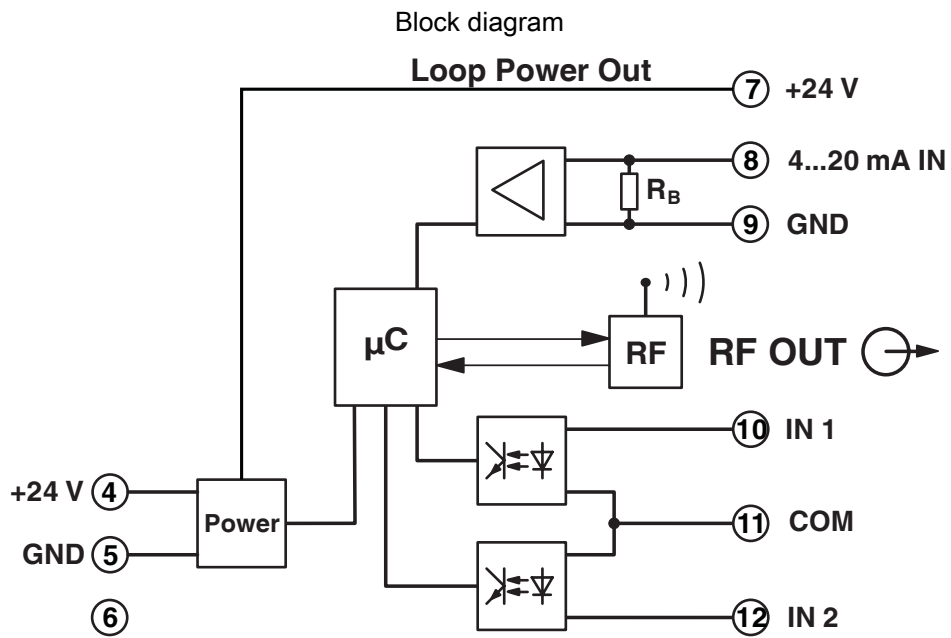
Point-to-multipoint



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Transmitter module

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Environmental product compliance

China RoHS	Environmentally Friendly Use Period = 50 years For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"
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Accessories

RAD-ISM-900-ANT-OMNI-5 - Antenna

2867199

<https://www.phoenixcontact.com/us/products/2867199>

Omnidirectional antenna, 900 MHz, gain: 7 dBi, polarization: linear, opening angle: h/v 360°/30°, degree of protection: IP65, connection: N (female), incl. mounting bracket and mast clips



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

2867791

<https://www.phoenixcontact.com/us/products/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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RAD-ISM-900-ANT-YAGI-3-N - Antenna

2867801

<https://www.phoenixcontact.com/us/products/2867801>



Directional antenna, 868 MHz / 900 MHz, gain: 5 dBi, polarization: linear, opening angle: h/v 168°/78°, degree of protection: IP65, connection: N (female), incl. mounting bracket and mast clips

RAD-ISM-900-ANT-YAGI-6.5-N - Antenna

2867814

<https://www.phoenixcontact.com/us/products/2867814>



Directional antenna, 868 MHz / 900 MHz, gain: 8.5 dBi, polarization: linear, opening angle: h/v 100°/62°, degree of protection: IP65, connection: N (female), incl. mounting bracket and mast clips

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

2867827

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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)

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

2867830

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

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<https://www.phoenixcontact.com/us/products/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

RAD-CAB-RG58-10 - Antenna cable

2867364

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Antenna extension cable, length: 10 ft



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RAD-CAB-RG58-20 - Antenna cable

2867212

<https://www.phoenixcontact.com/us/products/2867212>

Antenna extension cable, length: 20 ft



RAD-CAB-RG213-25 - Antenna cable

2867597

<https://www.phoenixcontact.com/us/products/2867597>

Antenna extension cable, length: 25 ft



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RAD-CAB-RG213-40 - Antenna cable

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Antenna cable, outside diameter: 10 mm (0.4 in.), inner conductor: solid, attenuation: 2.9 dB at 900 MHz, connection: 2 x N (male), cable length: 12 m (40 ft.)

RAD-CAB-RG213-50 - Antenna cable

2867225

<https://www.phoenixcontact.com/us/products/2867225>



Antenna cable, outside diameter: 10 mm (0.4 in.), inner conductor: solid, attenuation: 3.5 dB at 900 MHz, connection: 2 x N (male), cable length: 15 m (50 ft.)

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RAD-CAB-PFP400-60 - Antenna cable

2867380

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Antenna cable, outside diameter: 10 mm (0.4 in.), inner conductor: solid, attenuation: 2.5 / 4.2 / 6.3 dB at 0.9 / 2.4 / 5.8 GHz, connection: 2x N (male), cable length: 18 m (60 ft.)

RAD-CAB-PFP400-80 - Antenna cable

2867393

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Antenna cable, outside diameter: 10 mm (0.4 in.), inner conductor: solid, attenuation: 3.3 / 5.6 / 8.4 dB at 0.9 / 2.4 / 5.8 GHz, connection: 2x N (male), cable length: 24 m (80 ft.)

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RAD-CAB-PFP400-100 - Antenna cable

2867238

<https://www.phoenixcontact.com/us/products/2867238>

Antenna cable, outside diameter: 10 mm (0.4 in.), inner conductor: solid, attenuation: 4.1 / 6.9 / 10.4 dB at 0.9 / 2.4 / 5.8 GHz, connection: 2x N (male), cable length: 30 m (100 ft.)



RAD-CAB-LMR600-125 - Antenna cable

2885210

<https://www.phoenixcontact.com/us/products/2885210>

Antenna extension cable, length: 125 ft



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RAD-CAB-PFP600-150 - Antenna cable

2885184

<https://www.phoenixcontact.com/us/products/2885184>

Antenna cable, outside diameter: 15 mm (0.6 in.), inner conductor: solid, attenuation: 3.9 / 6.8 / 10.4 dB at 0.9 / 2.4 / 5.8 GHz, connection: 2x N (male), cable length: 45 m (150 ft.)



RAD-CAB-PFP900-200 - Antenna cable

2885197

<https://www.phoenixcontact.com/us/products/2885197>

Antenna extension cable, length: 200 ft



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RAD-CON-MCX-N-SB - Antenna cable

2867717

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



RAD-CON-SMA-N-SS - Antenna cable

2867403

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



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RAD-CON-MCX-MCX-SS - Antenna cable

2867607

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Antenna cable, outside diameter: 2.8 mm (0.11 in.), inner conductor: stranded, attenuation: 0.9 dB at 900 MHz, connection: MCX (male) -> MCX (male), cable length: 0.3 m (1 ft.)



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

2885207

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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.)



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RAD-ISM-900-ANT-4 - Antenna splitter

2867050

<https://www.phoenixcontact.com/us/products/2867050>



4-way distributor for antenna signals (antenna splitter), MCX connection (female)

RAD-ISM-900-ANT-OMNI-FG-6-N - Antenna

2885579

<https://www.phoenixcontact.com/us/products/2885579>



Omnidirectional antenna, 900 MHz, gain: 8 dBi, polarization: linear, opening angle: h/v 360°/15°, degree of protection: IP65, connection: N (female), incl. mounting bracket and mast clips

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RAD-CON-MCX-RPSMA-EX - Antenna cable

2885621

<https://www.phoenixcontact.com/us/products/2885621>



Antenna barrier, installation: Class I, Div. 1, Grps. A, B, C, D; Class II, Div. 1, Grps. F, G, frequency range: 0.3G Hz ... 6 GHz, connection: RSMA (male) -> MCX (male), incl. 0.7 m / 2.3 ft. connection cable, UL HazLoc approval

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