

RAD-ISM-900-SET-AC-UD

Wireless I/O Interface Transmitter Receiver Set with AC-powered Transmitter



INTERFACE

Data Sheet
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1 Description

The RAD-ISM-900-SET-AC-UD is an integrated radio and I/O module that eliminates cable and conduit for one 4-20 mA current loop and two digital signals in harsh, industrial environments. This unique addition to the Phoenix Contact signal conditioning line utilizes 900-928 MHz ISM band spread spectrum, frequency-hopping technology to guarantee a license free, interference free link between remote devices and the control room. Costly cable and conduit runs on new projects, or retrofitting of existing systems, are eliminated and replaced with a maintenance free, reliable and versatile wireless solution.

The set consists of an outdoor transmitter, receiver, and two antennas.

2 Features

- 1 W transmit power
- Wireless conduit for one 4-20 mA and two digital signals
- Interference free, frequency-hopping, spread spectrum technology
- License free 902-928 MHz band
- Easy to use, wire in/wire out, no setup or programming
- 180-300 m (600 to 1000 ft.) range in plant without line of sight
- Class I, Div. 2 approved for hazardous area

3 Applications

- SCADA systems
- Sensor monitoring
- PLC/RTU extensions
- Water/wastewater
- Oil/gas/petro-chemical industries
- Utilities



The products described in this data sheet are exclusively for export outside of the European Economic area.



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It can be downloaded at www.phoenixcontact.net/download.



This data sheet is valid for all products listed on the following page:

4 Ordering Data

Products

Description	Type	Order No.	Pcs./Pkt
Wireless set , includes transmitter, receiver, antennas	RAD-ISM-900-SET-AC-UD	2867021	1

Accessories

Description	Type	Order No.	Pcs./Pkt
Antenna , 7 dBi gain, omni-directional, IP65, connection N-type (female)	RAD-ISM-900-ANT-OMNI-5	2867199	1
Antenna , 3 dB gain, omni-directional fiberglass, type N connector (female)	RAD-ISM-900-ANT-OMNI-FG-3-N	2867791	1
Antenna , 5 dBi gain, panel, yagi-directional, IP65, 1.5 m cable length, type N connector (female)	RAD-ISM-900-ANT-YAGI-3-N	2867801	1
Antenna , 8.5 dBi gain, panel, yagi-directional, IP65, 1.5 m cable length, type N connector (female)	RAD-ISM-900-ANT-YAGI-6.5-N	2867814	1
Antenna , 6.5 dB gain, panel, yagi-directional, IP65, 7.6 m (25 ft.) LMR400 cable, type N connector (male) CN-UB, and MCX-to-N adapter	RAD-ISM-900-ANT-YAGI-6.5-25-AS	2867827	1
Antenna , 6.5 dB gain, panel, yagi-directional, IP65, 15.2 m (50 ft.) LMR400 cable, type N connector (male) CN-UB, and MCX-to-N adapter	RAD-ISM-900-ANT-YAGI-6.5-50-AS	2867830	1
Antenna , 8 dBi gain, omni-directional, type N connector (female)	RAD-ISM-900-ANT-OMNI-FG-6-N	2885579	1
Cable , 7.6 m (25 ft.) RG213 with type N connectors (male)	RAD-CAB-RG213-25	2867597	1
Cable , 15.2 m (50 ft.) RG213 with type N connectors (male)	RAD-CAB-RG213-50	2867225	1
Cable , 30.5 m (100 ft.) LMR400 with type N connectors (male)	RAD-CAB-LMR400-100	2867238	1
Adapter cable , 1.2 m (4 ft.) RG316 with type N (male) and MCX (male) connectors	RAD-CON-MCX90-N-SS	2885207	1
Adapter cable , 1.2 m (4 ft.) RG316 with type N (male) and SMA (male) connectors	RAD-CON-SMA-N-SS	2867403	1
Adapter cable , Ex zone, 0.9 m (3 ft.) RG316 with RPSMA (male) and MCX (male) connectors	RAD-CON-MCX-RPSMA-EX	2885621	1

5 Technical Data

General Data	Receiver	Transmitter
Supply voltage	12-30 V DC	100-240 V AC
Current consumption, typical	57 mA	85 mA
Current consumption, maximum	109 mA	125 mA
Temperature range, operating	-40°C...70°C	-40°C...70°C
Humidity, non-condensing	NA	0%...95%
Degree of protection	IP65	IP20
Dimensions (W x H x D)	57 x 280 x 57 mm	17.5 x 99 x 114.5 mm
Mounting	NS35	1/2-in NPT female

Wireless	Receiver	Transmitter
Frequency range	902-928 MHz	902-928 MHz
Transmission power	1 W	1W
Number of channels	4 x 63	4 x 63
Range with omni-directional antenna	6-8 km (4-5 mi.)	6-8 km (4-5 mi.)

Analog Inputs	Receiver	Transmitter
Number	-	1
Type	-	4-20 mA
Input resistance	-	< 170 Ω

Digital Inputs		
Number	-	2
Type	-	Digital
Signal range	-	85-240 V AC

Analog Outputs		
Number	1	-
Type	4-20 mA	-
Input resistance	< 250 Ω	-

Digital Outputs		
Number	2	-
Type	Digital	-
Signal range	30 V DC / 120 V AC	-
Switching current	0.5 A	-

Conformity/Approvals		
FCC	Part 15.247	
ISC	RSS 210	
cULus	Class I, Div. 2 Groups A, B, C, D	