



OMNEX
TRUSTED WIRELESS

OMNEX Control Systems Inc.

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RAD-ISM-900-SET-UD/AC/DC

One-way wireless system for one 4-20mA and two digital signals



The RAD-ISM-900-SET Series is an integrated radio & I/O module designed to eliminate cable and conduit for one 4-20 mA current loop and two digital signals in harsh industrial environments. This radio utilizes OMNEX's Trusted 902-928MHz ISM band spread spectrum frequency hopping technology to guarantee a license free, interference free link between remote devices and the control room.

Industrial Wireless Solutions

www.omnexcontrols.com | sales@omnexcontrols.com

RAD-ISM-900-SET 2.0

OMNEX Industrial Wireless is:

Reliable

Cost Effective

License Free

Interference Free (FHSS)

Maintenance Free

Easy to Use

OMNEX will save you money by:

Eliminating Cable, Conduit & Pendants

Eliminating Permits, Delays & Labor

Restarting Stalled Projects

Increasing Monitoring/Control Accuracy

FEATURES

- 1 watt transmit power
- Wireless conduit for one 4-20 mA and two digital signals
- Easy to use, wire in – wire out, no setup or programming
- Range: 600 – 1000 feet in-plant no line-of-sight, 20+ miles with an engineered path
- Class I, Div. 2 UL approved for hazardous area installation

APPLICATIONS

- SCADA Systems • Tank Level/Pressure/ Temperature Monitoring • Utilities
- PLC/RTU extensions • Petro-Chem • Pump Control • Mills/Quarries/Factories • Water/Wastewater • Oil & Gas • Sensor Monitoring • Irrigation systems



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One-way wireless system for one 4-20mA and two digital signals

Transmit Power	1 watt
Range	600-1000 feet (180m-300m) in plant, no line-of-sight 4-5 miles (6-8km), line-of-sight, flat terrain, raised antennas 20+ miles (30km +), line-of-sight, flat terrain, professional propagation study, installation and directional antennas
Frequency	902 to 928MHz - ISM band 2.4 - 2.483GHz (DIN-rail mounted RAD-ISM-2400-SET-UD)
Power Source	<i>RAD-ISM-900-SET-UD</i> 9 to 30VDC <i>RAD-ISM-900-SET-DC-UD</i> 9 to 30VDC <i>RAD-ISM-900-SET-AC-UD</i> 85to240VAC (transmitter only - receiver is 9-30VDC)
Power Consumption	<i>Transmitter</i> 8.4 watts peak, 1.8 watts average (75mA @ 24VDC average) <i>Receiver</i> 3 watts (125mA @ 24VDC)
Transmitter Inputs	<i>RAD-ISM-900-SET-UD & RAD-ISM-900-SET-DC-UD</i> 2 x 5to 30VAC/DC digital inputs (for 120VAC digital inputs use relays to convert to specified voltage levels. Consult factory for relay options) <i>RAD-ISM-900-SET-AC-UD</i> 2 x 85 to 240 VAC digital inputs
Receiver	1 x 4-20mA analog (12-bit resolution) <i>Outputs</i> 3 x 120VAC 0.5A digital (dry contact) <i>Max Loop Impedance</i> 450 to 1350 Ohms for power supply voltages of 12-30VDC <i>Repeatability</i> 0.02% <i>Accuracy</i> 0.2% of full scale
General Specifications	
Temperature Range	-40 °F to 158 °F (-40 °C to 70 °C)
Dimensions	4" x 4.5" x .7" (102mm x 114mm x 17.5mm)
Approvals	UL listed (Class I Div 2, Groups A, B, C, & D)

Ordering Information

Part Description	Part Number
RAD-ISM-900-SET-UD (antennas must be ordered separately)	28 67 018
RAD-ISM-900-SET-UD-ANT (2 x 1/4 wave omni antennas included)	28 67 102
RAD-ISM-900-SET-AC-UD (2 x 1/4 wave omni antennas included)	28 67 021
RAD-ISM-900-SET-DC-UD (2 x 1/4 wave omni antennas included)	28 67 034

Accessories

MINI-PS-100-240AC/24DC/1 (universal voltage input 1A, 24VDC power supply)	29 38 840
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Class I, Div 2 Approved Power Supplies

QUINT PS 120AC/24DC/1(1A,24VDC)	56 02 771
QUINT PS 120AC/24DC/2.5(2.5A,24VDC)	56 02 769
CM50-PS120/230/24DC/2.5IF	29 39 425
CM125-PS120/230/5IF	29 39 522

Class I, Div 2 Approved Signal Converters

MCR-T/UI-E (thermocouple or RTD to 4-20mA converter)	28 14 113
MCR-C/UI/UI-DCI (converters for current to voltage or vice versa)	28 10 913
MCR-S1/5/UI-SW-DCI-NC (transducer for 0-11A AC/DC)	28 14 731
MCR-S10/50/UI-SW-DCI-NC (current transducer for 0-55A AC/DC)	28 14 744
MCR-F/UI-DC (frequency converter for 0-120kHz)	28 14 605

Specifications subject to change without notice

Manufactured by



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INNOVATION IN INTERFACE

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