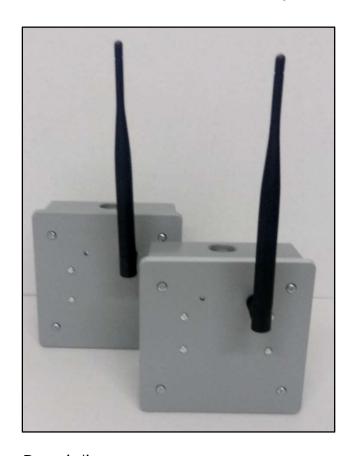




Wireless RTD (PT100) Transmitter / Receiver Set



FEATURES & BENEFITS

Wireless Bridge Between RTD Sensor and Instrument Models for RTD (PT100) Sensors
Receiver Models 0-5, 0-10V DC or 4-20mA Output
Up To 1 Mile Line-of-site Transmit/Receive Distance
Powered by any 12V-24V DC Supply
NEMA 4X Rugged Enclosures
Pre-configured, Ready-To-Operate
Sold As Transmitter/Receiver Matched Set
License Free Radio Operation

APPLACATIONS

Temperature Measurement Signals
Remote Sensor Monitoring & Control

Description

XTR-SN24-RTD Series Wireless RTD (PT100) Transmitters feature a factory programmed transmitter / receiver matched set. The transmitter sends resistive temperature sensor measurements (RTD) to a base receiver up to 1 mile away using license free 2.4 GHz RF technology. The receiver base provides analog voltage or current (4-20ma) output. Each Transmitter/Receiver set is factory coded as a matched set and requires no field programming. Models can be solar powered.

Transmitter Operation

The wireless RTD transmitter reads analog voltage output from a PT100 sensor and then sends the measured data over the air to a remote location. The measured RTD signals are converted to digital packets and then transmitted via a license free radio transmission to a waiting control receiver.

Receiver Operation

The wireless RTD receiver decodes any incoming radio packets and converts them into linear voltage or current output signals for interfacing with PLCs, Controllers, Data Loggers or Process Measurement Instruments.

General Specifications

Radio Frequency: 2.4 GHz

Regulatory: FCC Part 15 (No license required)

Control Lines: 1

Antenna Connection: RP-SMA

Antennas: 5dbi, Omni-directional (Included)

Transmit/Receive Distance: with included antennas:

Indoor/Urban 100ft, Line-of-site 600ft

with optional antennas:

Indoor/Urban 300ft, Line-of-site 1 Mile

Transmitter/Receiver Code Matching: Factory set

Wire Connection: Terminal Blocks

Operating Temperature: -22 to 113 °F (-30 to 45 °C)

Enclosures: NEMA 4X, PVC

Transmitter Specifications

RF Power Output: 63mW

RF Output Impedance: 50 Ohm nominal

RF Data Rate: 250 kbps

Operating Power 12-24V DC @ 3W max

Input Type: RTD 3-Wire (PT100) 100 ohm, a= 0.00385

Measurement Range: See Model Table

Resolution: 10 Bits

Measurement Accuracy: +/- 3.6°F (2 °C) Sensor Break Result: Upscale Output

Receiver Specifications

Receive Sensitivity: -100 dBm

Operating Power: 12-24V DC @ 3W max Output: Analog, 0-5V DC, 0-10V DC or 4-20mA RF Signal Loss Result: Holds output at last reading. Series: XTR-SN24-RTD



Each Set Includes 5dbi Antennas and 9ft Antenna Extension Cables



Optional 1 Mile Distance Antenna Set

Regulatory Approvals

FCC(USA) - OUR-XBEEPRO IC (Canada) - 4214A-XBEEPRO

Model Number	Description	Measurement Range
XTR-SN24-RTD-140F-5	RTD Transmitter/Receiver, 0-5V DC Output	-40 to 140 °F (-40 to 60 °C)
XTR-SN24-RTD-140F-10	RTD Transmitter/Receiver, 0-10 DC Output	-40 to 140 °F (-40 to 60 °C)
XTR-SN24-RTD-140F-420	RTD Transmitter/Receiver, 4-20mA Output	-40 to 140 °F (-40 to 60 °C)
XTR-SN24-RTD-500F-5	RTD Transmitter/Receiver, 0-5V DC Output	0 to 500 °F (-18 to 260 °C)
XTR-SN24-RTD-500F-10	RTD Transmitter/Receiver, 0-10 DC Output	0 to 500 °F (-18 to 260 °C)
XTR-SN24-RTD-500F-420	RTD Transmitter/Receiver, 4-20mA Output	0 to 500 °F (-18 to 260 °C)

Additional ranges and custom models are available, contact us for more information. Note: RTD Sensor Not Included.

Available Options

Model Number	Description	
DRWC-24-LRANT	Optional Long-Distance Yagi Directional Antenna Set (up to 1 Miles line-of-site)	

Note: Continued product improvements make specifications subject to change without notice. Check www.imagineinstruments.com for the latest product information and updates

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