Description
Detcon Model Series RXT-320 SmartWireless® transceivers are ideal for transmitting signal data in a wide range of industrial detection and alarm system applications. The transceiver operates at a universally accepted frequency of 2.4 GHz and is able to transmit signal data from 4-20 mA DC or serial MODBUS inputs. Wireless installations eliminate the cost of point-to-point wiring and can be as simple as a single field device communicating with a controller, or as complex as 32 field device nodes forming a seamless network with a controller, remote display, and audio/visual alarm stations.

Wireless network integrity, security, and reliability are accomplished using direct sequence spread spectrum wireless mesh technology. Every device in the network is capable of functioning as a router and repeater for all other devices in the network. This means that subscribers can “hop” through neighboring devices to communicate with each other, thus widening network access points. This innovative technology creates a robust network that automatically routes around congestion and RF line-of-sight obstacles. Throughput improves as device density increases.

Features
- Universally Acceptable Frequency 2.4 GHz
- Low Power Requirement
- 1 Mile Line-of-Sight Range
- Robust Mesh Network Topology
- Network Capacity up to 32 Devices
- Flexible I/O options

Applications
- Oil and Gas Drilling Rigs
- Oil and Gas Production Sites
- Wastewater Treatment Plants
- Food and Beverage Processing
- Pulp and Paper Mills
- Refining and Petrochemical
Model RXT-320 ▪ SmartWireless® Transceiver

System Specifications

Input/Output
Two Analog 4-20mA
RS-485 Modbus™ RTU (9600bps)

Outputs
Four Open Collector Outputs

Channel Capacity
32

Electrical Classification
Class I; Division 1; Groups D, C

Safety Approvals

- cETLus Class I, Division 1, Groups C, D
- ATEX II 2 G Ex d [ib] ib IIB T6 + H2 T4 (pending)
- CE Marking (pending)

Warranty
One Year

Environmental Specifications

Operating Temperature Range
-40°C to +85°C; -40°F to +185°F

Mechanical Specifications

Dimensions
8.4"H x 2.4"Dia.; 213mmmH x 61mm Dia. (transceiver only)
15.7"H x 10"W x 4.3"D; 399mmH x 254mmW x 109mmD (with J-Box)
15.7"H x 10"W x 8"D; 399mmH x 254mmW x 203mmD (with J-Box & battery)

Weight
2 lbs/0.90 kilograms (transceiver only)
8 lbs/3.62 kilograms (with aluminum J-box)
11 lbs/4.98 kilograms (with SS J-box)
10 lbs/4.53 kilograms (with aluminum J-box & battery)
13 lbs/5.89 kilograms (with SS J-box & battery)

Accessories
Solar Charging Panel

Order Guide

Part Number Description
976-000320-000 Model RXT-320 Wireless Transceiver
976-000321-000 Model RXT-320 w/Aluminum J-Box & Terminal Board
976-000322-000 Model RXT-320 w/Stainless Steel J-Box & Terminal Board
976-000327-000 Model RXT-320 w/Extended lid aluminum junction box and smart battery pack
976-000327-100 Model RXT-320 w/Extended lid aluminum junction box and high output smart battery pack
976-0003FF-000 SmartWireless® Network Configuration Tool

Electrical Specifications

Power Input
7-30 VDC

Power Consumption
Base RXT-320 unit: <500mW, 20 mA max at 24VDC
Total Power is dependent on com update rate between RXT transceivers

Baud Rate
9600 BPS (9600,N,8,1 Half Duplex)

RF
Outdoor RF Line of Sight (with standard antenna): 1.5 Miles
Throughput Data Rate: 19,200bps
RF Data Rate: 250,000bps
Transceiver Sensitivity: -102dBm
Frequency: 2.40-2.48GHz
RF Channels: 16, each 5Mz Wide
Output Power: 63mW (18dBm) EIRP

Modulation: 0-QPSK
Spread Spectrum: DSSS (Direct Sequence Spread Spectrum)

Supported Network Topologies: Mesh, Point-to-Point
Encryption: AES-128 Available

Antenna
Connector: Internal F-Type Antenna
Impedance: N/A

I/O Protection
Over-voltage, Miswiring, EMI/RFI Immunity

Specifications subject to change without notice

Order Guide

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976-000327-000 Model RXT-320 w/Extended lid aluminum junction box and smart battery pack
976-000327-100 Model RXT-320 w/Extended lid aluminum junction box and high output smart battery pack
976-0003FF-000 SmartWireless® Network Configuration Tool

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