



# Detcon MODEL RXT-300

## WIRELESS MODBUS™ GATEWAY

ISO 9001: 2000  
Certified

888-367-4286  
713-559-9200  
fax 281-292-2860  
www.detcon.com  
sales@detcon.com

### DESCRIPTION

Detcon Model Series RXT-300 wireless transceivers are ideal for use in transmitting signal data in a wide range of industrial detection and alarm system applications. Signal data can be analog 4-20 maDC or serial MODBUS. The transceivers operate at 2.4 GHZ and conform to non licensed radio frequency appliance usage around the world. Wireless network integrity and security is accomplished using direct sequence spread spectrum wireless mesh technology. Wireless applications can be as simple as a single field device communicating with a host controller or any number of field devices forming a network of subscribers. Each device in the network is assigned a Network ID. Processing power is shared among all devices, which enables every device in the network to act 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 thereby widening network access points. This unique and innovative technology is designed to create a robust network that automatically routes around congestion and line-of-sight obstacles, while improving throughput as subscriber device density increases.

### FEATURES

- ▷ Universally Acceptable Frequency 2.4 GHz
- ▷ Low Power Requirement
- ▷ 3 Mile Line-of-Sight Range
- ▷ Robust Mesh Network Topology
- ▷ Network Capacity up to 32 Devices
- ▷ Flexible I/O options

### SPECIFICATIONS

#### Electrical Classification

Class I; Division 1; Groups B, D, C

#### Dimensions

8.4"H x 2.4"Dia.

#### Weight

1.85 lbs/0.839 kilograms

#### Power Requirements

Power Supply Voltage: 10-30VDC  
Transmit Current: 115mA  
Sleep Power Down: 3µA  
Idle Current Cyclic Sleep 16s: 1.1mA  
Idle Current Cyclic Sleep 8s: 1.3mA  
Idle Current Cyclic Sleep 4s: 1.8mA  
Idle Current Cyclic Sleep 2s: 2.7mA  
Idle Current Cyclic Sleep 1s: 4.6mA

#### Inputs

Analog: 4-20mA (2)  
Digital: Battery Monitor (2), RS-485

#### Outputs

Analog: Requires Digital to Analog Converter Module

#### Operating Temperature Range

-40°C to +85°C; -40°F to +185°F

#### Performance

Transmit Power Output: 18dBm

#### Warranty

One year

#### Range Limits

Indoor/ No Line of Sight: 1,000ft  
Outdoor RF Line of Sight (with standard antenna): 3 Miles  
Outdoor RF Line of Sight (with high gain antenna): Up to 15 Miles  
(requires RF coupler to high gain antenna)  
Interface Data Rate: 9,600bps  
Throughput Data Rate: 19,200bps  
RF Data Rate: 250,000bps  
Transceiver Sensitivity: -102dBm

#### Networking and Security

Frequency: 2.4GHz ISM  
Spread Spectrum: DSSS (Direct Sequence Spread Spectrum)  
Modulation: 0-QPSK  
Supported Network Topologies: Mesh, Point-to-Point  
Channel Capacity: 32  
Encryption: AES-128 Available

#### Antenna

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

### ORDER GUIDE

PN 976-000300-000	Model RXT-300 Wireless Transceiver
PN 976-000301-000	Model RXT-300 w/Aluminum J-Box & Terminal Board
PN 976-000302-000	Model RXT-300 w/Stainless Steel J-Box & Terminal Board



[www.detcon.com](http://www.detcon.com)