



### PRODUCT HIGHLIGHTS

- Ideal Solution for Dry Contact Switches and Monitoring Alarm Conditions
- Wirelessly Monitors On/Off Status
- High Performance Wireless Connectivity
- Provides 2 Inputs for Dry Contact Relay or Open-Drain Output Devices
- Seamless Integration with Third-Party Devices
- Direct or Pipe-Mount Versions for Integration Flexibility
- License-Free 900 MHz/2.4 GHz Band, Secure Data Transmission
- Intrinsically Safe for Use in Hazardous Locations
- Self-Contained Battery Operation
- Easy-to-Install, Configure and Use
- User-Friendly BreeZ® Configuration Software



SM5000-DS1 / SM5000-DJ1



### APPLICATIONS

- Oil & Gas, Pipeline, Petro-Chem, Water/Wastewater, Utilities, Irrigation Systems, Mining, SCADA Systems, On/Off Status, 3A Sanitary, Pharmaceuticals, Biotechnology, and Much More



### WIRELESS SENSOR NETWORK

- Reliable, Robust Wireless Performance
- Eliminates Costly Conduits and Wiring
- Monitor / Control Process Conditions 24/7
- License-Free ISM Band, FSK & FHSS Technologies
- Reduces Labor, Installation and Maintenance Costs
- Helps Meet Regulatory Requirements
- Industrial Strength Performance & Durability

Wireless Discrete Monitoring

2 Discrete Inputs

Multi-Vendor Compatible

Direct or Pipe-Mount Version

Exception Reporting Device

902-928 MHz ISM License-Free Band

Self-Contained Battery Operation

Up to 10-Year Battery Life

Class I; Division 1

# Technical Specifications

## DISCRETE TRANSMITTER




### HARDWARE FEATURES

Device Functionality	· Discrete Input Wireless Transmitter
Embedded Controller	· Ultra-Low Power RISC Microcontroller with Internal FLASH (Field Upgradeable)
Device Interface	· Standard RS232 Serial
I/O Interface	· 2 Inputs for Dry Contact Relay or Open-drain Output Devices
Power Source	· Self-Contained, Internal 3.6 V Lithium Battery
Internal Battery Life	· Up to 10 Years, Based on Usage
Self-Diagnostics	· Contains Comprehensive Self-Checking Software and Hardware for Continuous Monitoring of Operation

### WIRELESS COMMUNICATIONS

Type: 900 MHz	· ISM Band, FSK (Frequency-Shift Keying), FHSS (Frequency Hopping Spread Spectrum)
Frequency	· 902 to 928 MHz (North America); 915-928 MHz (Aus, Int'l)
Data Rate	· 9600 bps / 115.2 kbps
Output Power	· 1 mW or 10 mW
Receiving Sensitivity	· -110 dBm @ 9600 bps or -100 dBm @ 115.2 kbps
Range	· Up to 7500 Feet (2.3 km) with Clear Line of Sight

### CERTIFICATIONS & COMPLIANCE

FCC		· FCC Part 15
Industry Canada (IC)		· ICES-003
Safety	 	· Class I Division 1, Groups A, B, C, D T3C · Class 1 Zone 0 AEx ia IIC T3 Ga; Class 1 Zone 0 Ex ia IIC T3 Ga · ATEX: Sira 13ATEX2142X; Ex ia IIC T3 Ga; II 1 G · IECEx: SIR 13.0054X; Ex ia IIC T3 Ga

### MECHANICAL SPECIFICATIONS

Dimensions	· 5" (W) x 8.75" (H) x 4.25" (D) / 127 mm (W) x 222 mm (H) x 108 mm (D)
Dim. with Junction Box	· 5" (W) x 12.8" (H) x 4.25" (D) / 127 mm (W) x 325 mm (H) x 108 mm (D)
Package Dimensions	· 10.25" (W) x 14" (H) x 6.5" (D) / 260 mm (W) x 356 mm (H) x 165 mm (D)
Weight	· Net: 2.75 lbs / 1.4 kg; Packaging: 4.75 lbs / 2.2 kg
Weight with Junction Box	· Net: 4.75 lbs / 2.1 kg; Packaging: 6.5 lbs / 2.9 kg
Mounting Hardware	· Direct or Pipe Mount
Hardware Connection	· W/O Junction Box: 3/4" NPT Male; W/Junction Box: 3/4" NPT Female
Enclosure Casing Material	· Type 4X Aluminum; IP66

### GENERAL SPECIFICATIONS

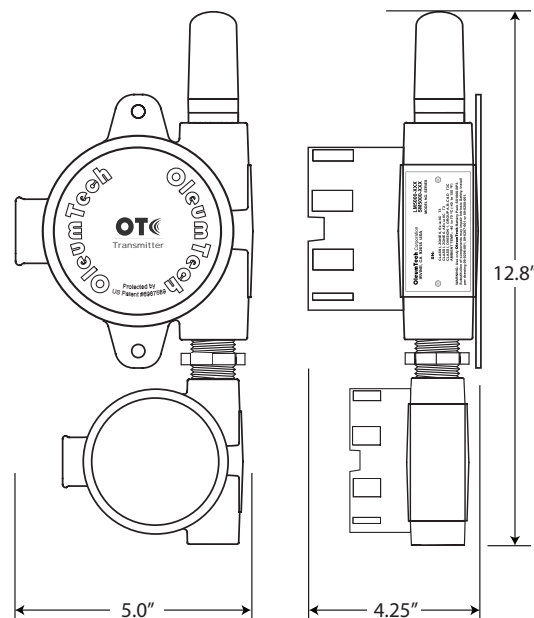
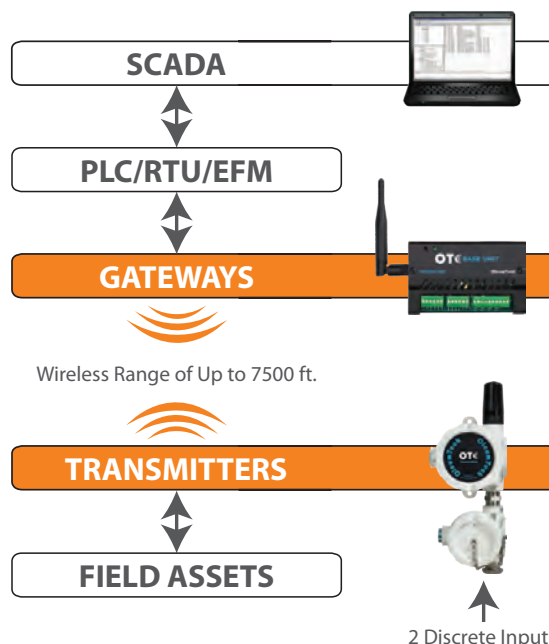
Operating Conditions	· Ambient Temperature (Class I; Division 1): -40 °F to 158 °F (-40 °C to 70 °C) · Ambient Temperature (Non-Hazardous Applications): -40 °F to 185 °F (-40 °C to 85 °C) · Humidity: 0 to 99 %, Non-Condensing
Warranty	· 2-Year Parts and Labor
Country of Origin	· Made in USA

### ORDERING INFORMATION

Model Number(s)	· 900 MHz: SM5000-DS1, SM5000-DJ1 (with Junction Box)
Wirelessly Connects To	· Gateways: Base Unit (WM2000-002) or DH2 (SR5000-DH2)



### BASIC NETWORKING DIAGRAM



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SM5000-DS1 / SM5000-DJ1

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