

## Multi-Point Wireless I/O Radio Kit

900 MHz: BM-0900-GM1K

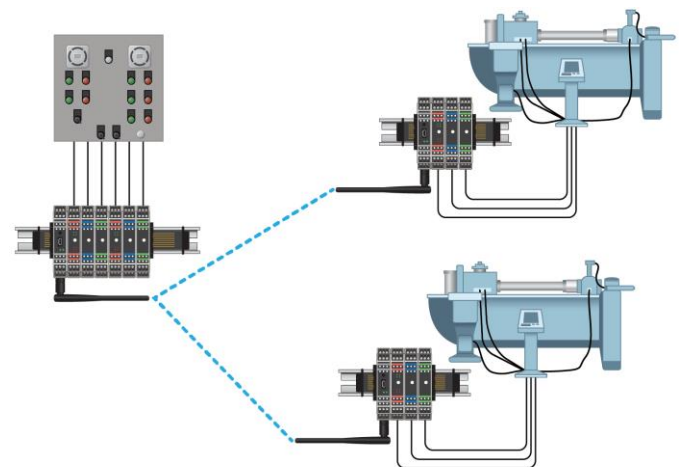
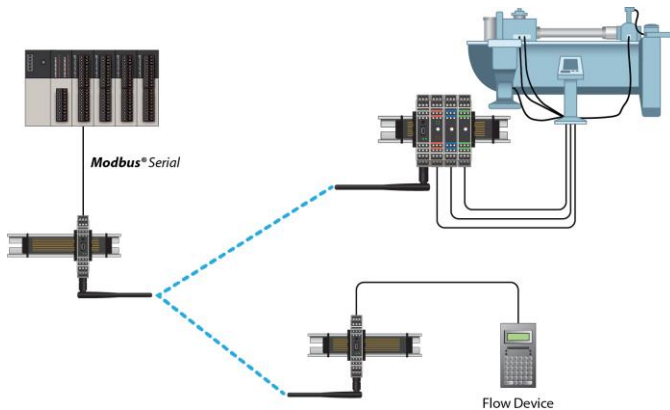
915 MHz: BM-0915-GM1K

868 MHz: BM-0868-GM1K

2.4 GHz: BM-2400-GM1K

ProSoft Technology's Multi-Point Wireless I/O system allows you to monitor I/O from multiple locations without running long wires. This secure, reliable system is scalable and deploys quickly, allowing you to skip trenching, conduit, and permits. Three module types: Analog 0-10 V, Analog 4-20 mA, and Digital/Discrete – give you the freedom to customize your setup based on your environment and needs.

The system can be used in different methods: I/O to I/O, I/O to Modbus serial communications, and Modbus® serial to Modbus Serial communications. This peer-to-peer system can move data from the I/O or Modbus devices to any other node. The digital input module can act as a counter and send the accumulated value to another location.



## Features

- ◆ Single power termination per station saves wiring time
- ◆ AES encryption ensures data is protected from intrusions
- ◆ Peer-to-peer communications allow data from any radio to any radio
- ◆ Scalable solution supports up to 1,000 nodes
- ◆ Supports up to 1,920 Modbus registers

# Specifications

## Hardware & System

Specification	Description
Device Functionality	Multipoint Wireless I/O Gateway
Embedded Controller	32-bit Low Power ARM7 Microcontroller with Internal FLASH (Field Upgradeable)
Serial Interfaces	RTU Port (RS232/RS485 Modbus Master or Slave) Terminal Block
Configuration	Mini-USB to Serial
Self-Diagnostics	Contains Comprehensive Self-Checking Software and Hardware for continuous Monitoring of Operation

## Radio

Specification	Description
Type: 900 MHz / 2.4 GHz	<ul style="list-style-type: none"><li>ISM Band, FSK (Frequency-Shift Keying), AES Encryption 256-bit (900 MHz), 128-bit (915 MHz)</li><li>900 MHz: FHSS (Frequency Hopping Spread Spectrum) / 50 Freq Ch x 10 Hopping Tables</li><li>Channel Size: 500 KHz for 1 W Radio</li><li>2.4 GHz: DSSS (Direct-Sequence Spread Spectrum), AES Encryption 128-bit</li><li>Channel Size: 5 MHz, Utilizes 12 out of 802.15.4 Standard 16 Channels</li></ul>
Frequency	863 to 870 MHz (Europe) / 902 to 928 MHz (North Am) / 915 to 928 MHz (Aus, Int'l) / 2.4 GHz (US/Int'l)
Bit Rate	868 MHz and 900 MHz: 9600 bps / 115.2 kbps 2.4 GHz: 250 kbps
Output Power	868 MHz: 10 to 25 mW 900 MHz: 1 mW to 1 W 2.4 GHz: 10 mW to 63 mW
Receiving Sensitivity	-110 dBm @ 9600 bps, -100 dBm @ 115.2 kbps, or -100 dBm @ 250 kbps
Range (Peer-to-Peer)	900 MHz: Up to 30 miles (48.3 km) 868 MHz and 2.4 GHz: Up to 3 miles (5 km)
Antenna Connector	SMA

## Physical

Specification	Description
DC Power Input	9 to 30 VDC
Average Power Input	2 Watt
Power Consumption	Idle: 100 mA Configuration: 110 mA Transmission: 350 mA
Dimensions (W x H x D)	0.7 x 3.9 x 4.5 in, 17.5 x 99 x 114 mm
Package Dimensions (W x H x D)	5.5 x 10.1 x 2.8 in, 140 x 257 x 72 mm
Weight	Net: 0.3 lbs / 136 g; Packaging: 0.8 lbs / 363 kg
Mounting Hardware	Requires DataRail™ and 35 mm DIN Rail
Operating Conditions	<ul style="list-style-type: none"><li>Temperature: Class I; Div 2: -40 °F to 176 °F (-40 °C to 80 °C) Ambient: -4 °F to 185 °F (-20 °C to 85 °C)</li><li>Humidity: 0 to 99 %, Non-Condensing</li></ul>
Warranty	2-Year Parts and Labor
Country of Origin	Made in USA

## Agency Approvals & Certifications

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## Ordering Information

To order this product, please use the following:

## Multi-Point Wireless I/O Radio Kit

### USA/North America

900 MHz: **BM-0900-GM1K**  
2.4 GHz: **BM-2400-GM1K**

### International

915 MHz: **BM-0915-GM1K** (Australia)  
868 MHz: **BM-0868-GM1K** (Europe)  
2.4 GHz: **BM-2400-GM1K** (non-E.U.)

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