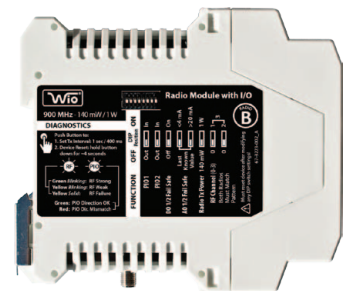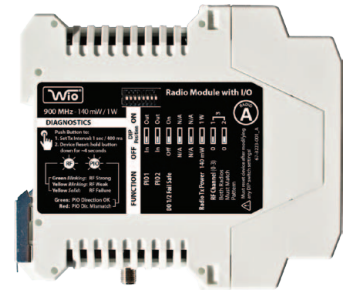## I/O & HARDWARE FEATURES

Analog 4-20 mA Communication	Uni-Directional (Radio A to B Only)
Digital/Discrete Communication	Bi-Directional (Configurable Using DIP Switches)
DIO Mismatch Indication - Right LED	Green = OK / Red = Mismatch
DIN Rail Mounting Compatibility	35 mm Standard DIN Rail (Direct Mount)
Built-In Mounting Hardware	Spring-Loaded Clip-On System
Wire Gauge	Solid / Stranded (AWG) 28-12 Gauge
Wire Rating (Recommended)	300 V RMS, 80 °C and 300 V, 105 °C
Supply Voltage Range	9 - 30 Vdc (±5 %)
Reverse Polarity Protection	Yes
Power Consumption	TBD
Packaging Dimensions (WxHxD)	4.8 x 5.1 x 2.8-in / 123 x 129 x 72 mm
Net Dimensions	0.7 x 3.9 x 4.5-in / 17.5 x 99 x 114 mm
Packaging Weight	Single: 0.5 lbs / 227 g; Double: 0.8 lbs / 363 g
Net Weight (Single Radio)	0.3 lbs / 136 g
Warranty	2-Year Limited

RADIO FEATURES

Communication Type	Point-to-Point Wireless I/O Communication System
Radio Frequency (RF)	868 MHz | 902-928 MHz | 2.4 GHz License-Free ISM Band
RF Security	128-bit AES Encryption
Antenna Connector Type	SMA (Female Connector)
Default Transmission Speed / Response Time	1 Second
Turbo Transmission Speed / Response Time	400 ms
Line of Sight Maximum RF Range[1]	868 MHz: TBD
	900 MHz: Up to 40 Miles (64.4 Km)
	2.4 GHz: Up to 5.7 Mile (9.2 Km)
RF Transmit Power	868 MHz: 25 mW (14 dBm)
	900 MHz: 140 mW/1 W (22 or 30 dBm - DIP Switch Selectable)
	915 MHz: 140 mW/1 W (22 or 30 dBm - DIP Switch Selectable)
	2.4 GHz: 63 mW (18 dBm)
	2.4 GHz Low Power: 10 mW (10 dBm)
Receiver Sensitivity	868 MHz: -101 dBm / 900 MHz: -101 dBm / 2.4 GHz: -100 dBm
Spread Spectrum	900 MHz: FHSS / 2.4 GHz DSSS
RF Link Indication - Left LED	Green = OK / Solid Yellow = Failed
RF Timeout Trigger	10 Seconds
RF Response Time	Flashing Normal (1 sec) / Flashing Fast (400ms)
RF Signal Quality	Flashing Green = Strong / Flashing Yellow = Weak
RF ID 900 MHz	FCC: MCQ-XBPSX / IC: 1846A-XBPSX
RF ID 2.4 GHz	FCC: OUR-XBEEPRO / IC: 4214A-XBEEPRO
RF ID 868 MHz	TBD

ANALOG INPUTS (RADIO A ONLY)

2x Analog Inputs	4 mA to 20 mA (16-bit Resolution)
Accuracy	< 0.2 % of Full Scale
Internal Loop Power	+13.5 Vdc
AI Input Impedance (loop)	250 ohm

ANALOG OUTPUTS (RADIO B ONLY)

2x Analog Outputs	4 mA to 20 mA (16-bit Resolution)
AO Terminal Voltage Range	10 Vdc Min. / 31.5 Vdc Max.
RF Fail-Safe Output Modes	Last Known Value (Def.), <4 mA, >20 mA (DIP)

DIGITAL I/O (CONFIGURABLE) BOTH RADIO MODULES A + B

IO Channel Count	2x Available on Each Radio Module
Signal Direction	Any Direction, Any Combination (If A = In; B = Out)
	Signal Direction Controlled via DIP Switches
Input Voltage Range	3-30 VDC
Input Voltage Threshold	Signal ("H"): > 2.3 VDC (TBD)
	0 Signal ("L"): < 1.1 VDC
Output Rating	1 A Sink Current for
	Open-Drain Outputs / NPN
RF Fail-Safe Output Modes	On or Off (DIP Switch Controlled)

SAFETY & COMPLIANCE

Operational Temperature	-40 °C to 80 °C / -40 °F to 176 °F
Ambient Temperature	-20 °C to 80 °C / -4 °F to 176 °F
Humidity	0 to 99 %, Non-condensing
Degree of Protection	IP20 / Plastic
RF Emissions	FCC Part 15/IC

ORDERING INFORMATION

868 MHz System	BR-0868-RM4 (Includes Radio A and B)
900 MHz System	BR-0900-RM4 (Includes Radio A and B)
2.4 GHz System	BR-2400-RM4 (Includes Radio A and B)

[1]The maximum RF range data was collected under optimal test conditions, including a clear line of sight between antennas. Actual wireless RF range may vary depending on location, RF interference, weather, antenna type, cable type, and line of sight.

MADE IN USA