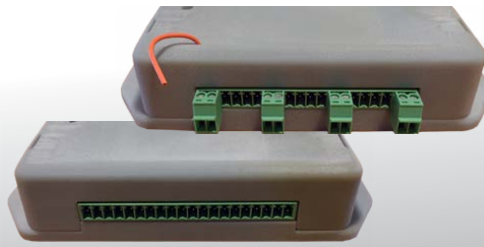
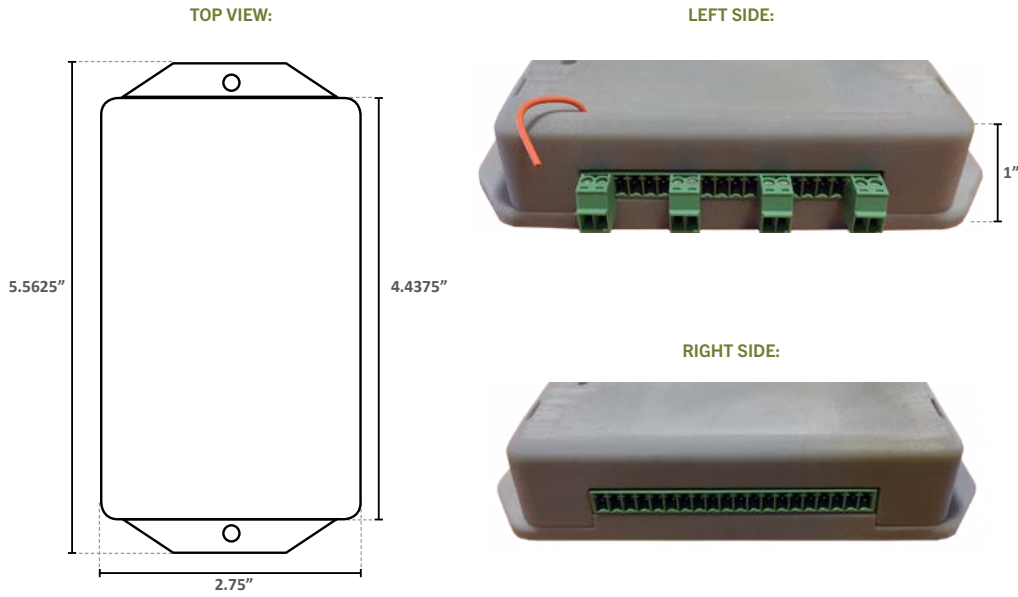


Mx-RSB-12

Sensor Control Board



PRODUCT CASING & DIMENSIONS



TECHNICAL DATA

*PATENT PENDING

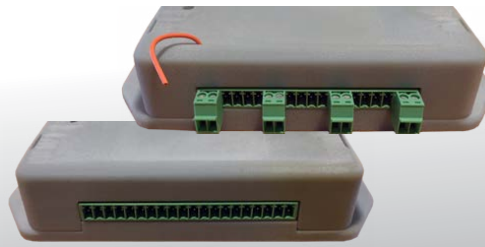
Part Numbers (Frequency Dependant)	M9-RSB-12 (902 MHz - North America) M8-RSB-12 (868 MHz - Europe and China) MJ-RSB-12 (928 MHz - Japan)
Input Power	24 VAC
Digital Relay Output Channels	(3) N.O. Dry Contracts Rated for 24 VAC 2A
Analog Output Channels	(1) 0-10 VDC Rated for 30mA
Digital Input Channels	(2) (24 VAC / 24 DC) (Source / Sink)
Pressure Measurement	(2) (3 Wire / Pressure Transducer) (Source / Sink)
Temperature Measurement	(9) (2 Wire NTC 10K)
Humidity Measurement	(1) (3 Wire / Humidity Sensor 0-100%) (Source / Sink)
Wireless Protocol	EnOcean Wireless Standard
Wireless Range	150ft (50ft-150ft typical)
Enclosure	ABS Plastic
Dimensions	5.5625" x 2.75" x 1"
Operating Temperature	-40°F to 125°F (-40°C to 51.667°C)
Storage Temperature	32°F to 104°F (0°C to 32°C)

All content subject to change

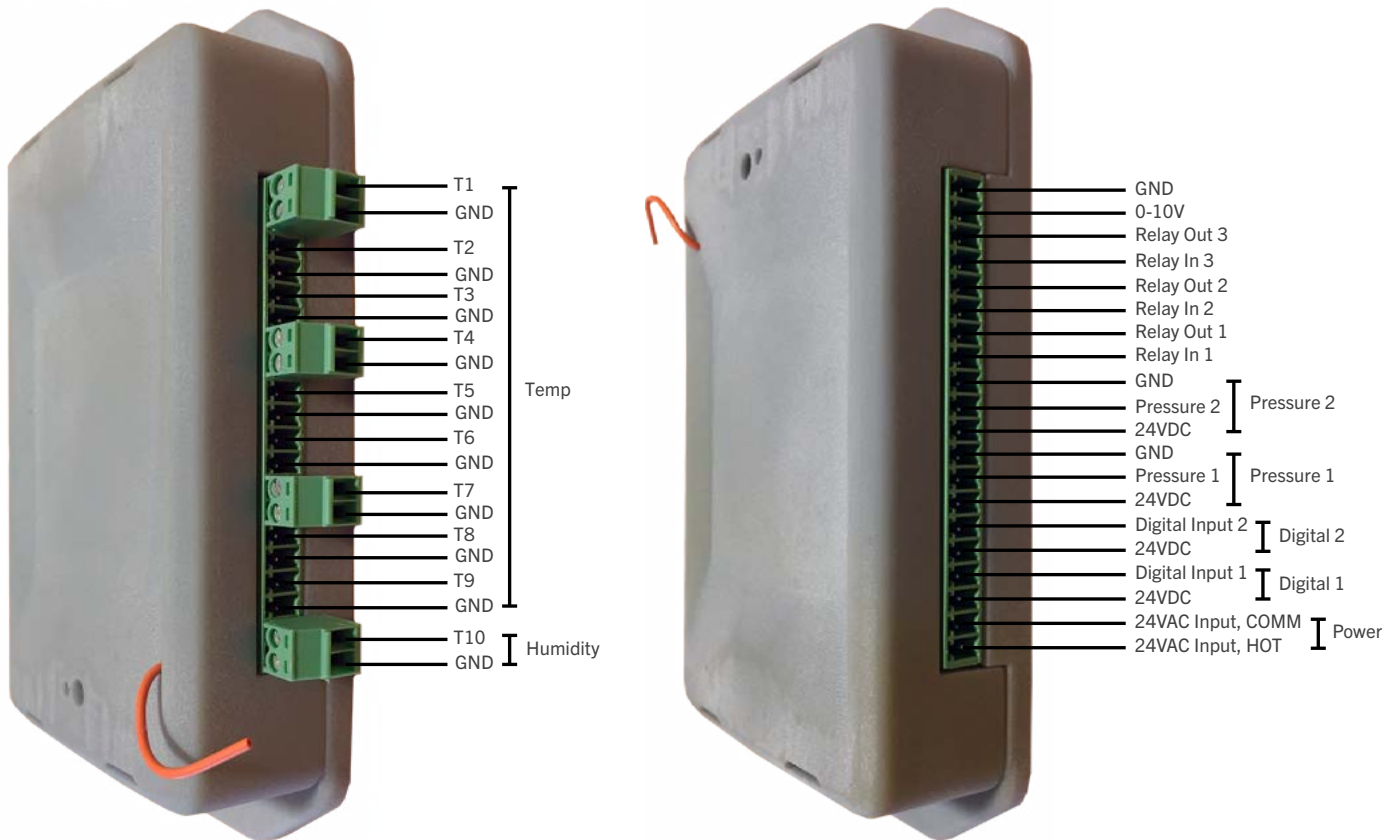
ver:030125

Mx-RSB-12

Sensor Control Board



INPUT / OUTPUT OVERVIEW:



CONNECTING INPUTS & OUTPUTS

- BEFORE INSERTING ANY SENSORS OR WIRES INTO DEVICE, BE SURE TO LOOSEN SCREWS THROUGH THE HOLES ON THE TOP OF THE DEVICE.
- INSERT WIRES INTO CORRECT RECEPTACLE ON THE SIDE OF THE DEVICE (see images above), AND THEN TIGHTEN SCREWS TO SECURE THE WIRES.

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Sensor Control Board



1 INTRODUCTION

The Magnum Temperature / Humidity / Pressure Sensor Control Board includes 2 digital inputs, 3 digital outputs and 1 analog output. When a 24 VAC power source is connected to the Magnum Sensor Control Board, the controller automatically makes the 3 relays, pressure sensors, 0-10 Volts, and two digital inputs available.

The Control Board Includes:

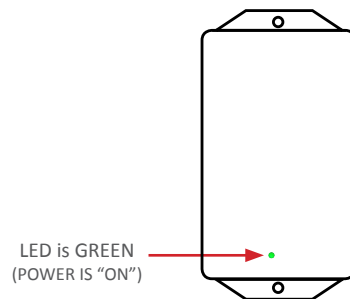
- 24VAC / 24 VDC power connections
- 9 NTC 10K Temperature sensor input channels / 1 Humidity
- 2 Digital inputs
- 3 Digital outputs
- 1 Analog output

2 INSTALLATION

1. **BEFORE POWERING DEVICE** , connect all sensors and digital inputs / outputs (**SEE INPUT / OUTPUT OVERVIEW BELOW**)

2. Connect device to a power source

(Green LED should light up to confirm device is powered "ON" as shown in image below)



3. Device Mounting:

NOTE: Mounting environment should have a typical ambient temperature (32°F - 104°F (0°C - 32°C) and relative humidity levels (20% - 95% non-condensing).

- Device can be wall mounted or mounted directly on the refrigeration case (on top or side of case)

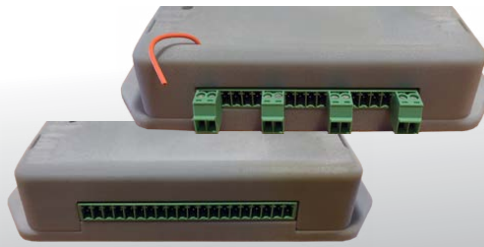
- Use 1/8" screws to mount device to desired location

- See image below for proper screw location on the plastic casing.



Mx-RSB-12

Sensor Control Board



3 DEVICE CONFIGURATION

AIRCONFIG™ IS REQUIRED TO CONFIGURE THIS DEVICE. PLEASE FOLLOW THE STEPS BELOW TO DOWNLOAD AIRCONFIG™ AND BEGIN YOUR DEVICE'S CONFIGURATION



Step One

- Download airConfig™, based on your operating system, to your computer at download.magnum-innovations.net



Step Two

- Insert USB stick, specifically programmed by Magnum Innovations, into your computer



Step Three

- Power up your device prior to configuration



Step Four

- Your laptop / computer (with provided USB stick) must be within radio range to configure device

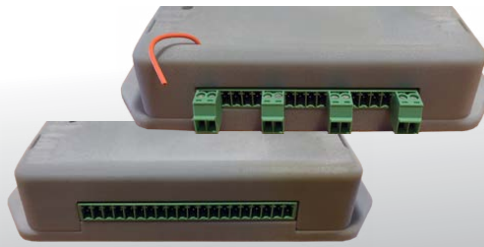


Step Five

- Start airConfig™ and select "Advanced" tab

Mx-RSB-12

Sensor Control Board



4 RESPONSIBILITY & RESIDUAL RISKS

Magnum First shall not be liable for damages caused by or attributed to the user including, but not limited to the following:

- Unauthorized installation and / or use that does not comply with the safety standards specified in applicable regulations and / or in this document.
- Use on equipment that does not guarantee adequate protection against electric shocks, water or dust when assembled.
- Use on equipment that allows dangerous parts to be accessed without the use of tools.
- Installation and / or use on equipment that is not compliant with the current standards and regulations in force.

5 DISCLAIMER

Magnum First shall not be liable for damages originated from the installation and / or use of the software that does not comply with the instructions of this manual.

While reasonable efforts have been made in the preparation of this document to ensure accuracy, Magnum Innovations assumes no liability resulting from the information contained herein.

To the maximum extent permitted by law, Magnum Innovations assumes no liability for special, accidental, direct, indirect, consequential, exemplary or punitive damages (including, without any limitation whatsoever, the loss of income or profits, interruption of work, loss of data or goodwill) originating from the use or failure of the software or equipment or from the supply or failure to supply technical support, even when informed of the likeliness of said damages.

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