

## APPLICATIONS

The Wireless Room Controller (BMWC-M-1-BLE-SR) is Bluetooth® NLC certified and designed to fit into a Blue-tooth mesh system for wireless control of room lighting with an integral 20A relay and single channel of 0-10VDC dimming output.

With an input voltage of 120-277VAC, this unit is controlled wirelessly via a qualified Bluetooth SIG Mesh network, allowing for wireless dimming of lighting and seamless integration of Bluetooth® Mesh software solutions. The unit is suited for mounting to an electrical enclosure (via 1/2" knock-out) or to a fixture/luminaire (via mounting tabs). The BMWC-M-1-BLE-SR is rated for use in Plenums and offers additional features, including 12VDC auxiliary power supply for sensors or other products and load control input that operates the integral relay.

## OVERVIEW

- Bluetooth® NLC Certified
- Single Channel Controller with 0-10VDC Dimming Output
- Mounts to 1/2" Knockout (Light Fixture or Enclosure)
- Features High End Trim Adjustment, Zoning & Continuous Dimming
- Sensor/Control Input (Active High) for Relay/Load Control
- Switching Relay with Zero-Crossing
- Line Voltage Input (120-277 VAC)
- 12VDC Auxiliary Output
- Approved for Lighting and Plug Loads
- Approved for Use in Plenum Applications
- Conforms with DLC NLC5 Cybersecurity Standards

## SUMMARY

Product Type:

**Single Channel Wireless Room Controller**

Input Voltage

**120-277VAC 50/60Hz | 100 mA**

**Auxiliary Power Output: 12VDC 200mA (Input Voltage up to 200VAC)**

**12VDC 300mA (Input Voltage over 200VAC)**

**Sensor Control Input: Active High 10-14VDC, 30mA**

**0-10VDC Output: 100mA Current Sinking**

**Max Load Rating (20A Relay):**

**16A for Elec.Ballast, LED, CFL**

**20A for Resistive**

Height:

**Fixture Mount**

**1/2" Threaded Nipple to Fixture or**

**Electrical Enclosure**

**Max Bluetooth Range1: 100ft (30.4m)**

Operating Temperature:

**-40°F to 104°F (-40°C to 40°C)**

Storage Temperature:

**-40°F to 185°F (-40°C to 85°C)**

Relative Humidity:

**90-95% non-condensing**

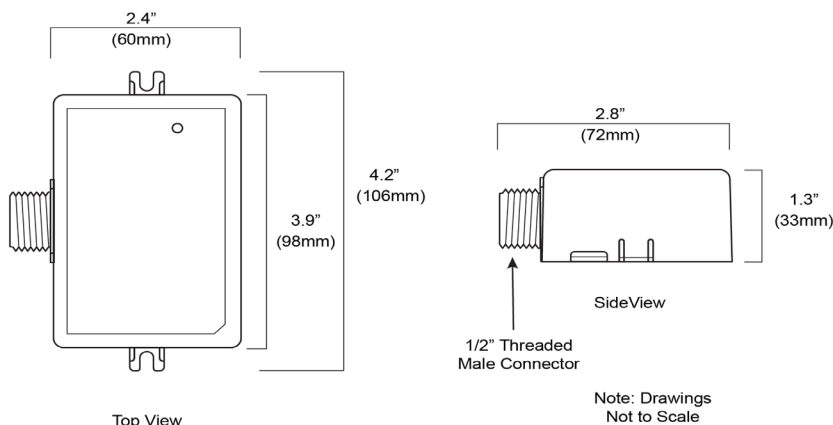
Color:

**White**

Note:

1. Bluetooth Range is highly dependent on the integration of fixtures, surrounding environment and conditions. It is recommended to conduct testing for range accuracy.

## PHYSICAL DIMENSIONS



## Wiring Table

| Wire            | Designation                           | Notes   | Size                                       |
|-----------------|---------------------------------------|---|--|
| Black           | Line Input (120-277VAC)               | Connect to Line Power (120 to 277 VAC, 50 or 60 Hz)           | #12 AWG, 180+/- 20mm, Strip 10, Tin Plated |
| White           | Neutral Input (120-277VAC)            | Connect to Neutral Power and Luminaire Power Input            |  |
| Red             | Load Output                           | Connect to Luminaire Power Input (Voltage matches Line Input) |  |
| Red/White       | Aux Power Output (12VDC+)             | Connect to Auxiliary Device Power Input (12VDC+)              | #22 AWG, 180+/-20mm, Strip 10mm Tin Plated |
| Black/White     | Aux Power Output (12VDC-)             | Connect to Auxiliary Device Power Input (12VDC-)              |  |
| Purple (Violet) | 0-10VDC+ Dim Output (Current Sinking) | Connect to Current Sourcing Luminaire Dim Input (0-10VDC+)    |  |
| Pink (or Gray)  | 0-10VDC- Dim Output (Current Sinking) | Connect to Current Sourcing Luminaire Dim Input (0-10VDC-)    |  |
| Yellow          | Load Control Input (12VDC)            | Connect to Sensor Output or Similar Device (Active High)      |  |

## OPERATION

### Bluemesh™ Controls:

The BMWC-M-1-BLE-SR controller is a Bluetooth NLC certified device by the Bluetooth SIG and offers true multi-vendor interoperability. Configuration of the device and mesh network is accomplished via the TruBlu web portal or iOS mobile app. The app is used for initial setup and subsequent parameter adjustment.

Advanced functionality such as energy monitoring, and demand response is available with the BlueMesh Gateway (sold separately).

**Single Channel Dimming:** allows for zone control of one 0-10VDC dimming channel.

**Power Multiple Sensors:** a 12VDC auxiliary device power output is available to power multiple devices including occupancy sensors.

See Bluemesh™ Commissioning User Manual for more information.

**Integral Relay:** features a 20A relay to control multiple fixtures in a lighting zone.

See the Bluemesh™ Commissioning User Manual for more information.

## ORDERING INFORMATION

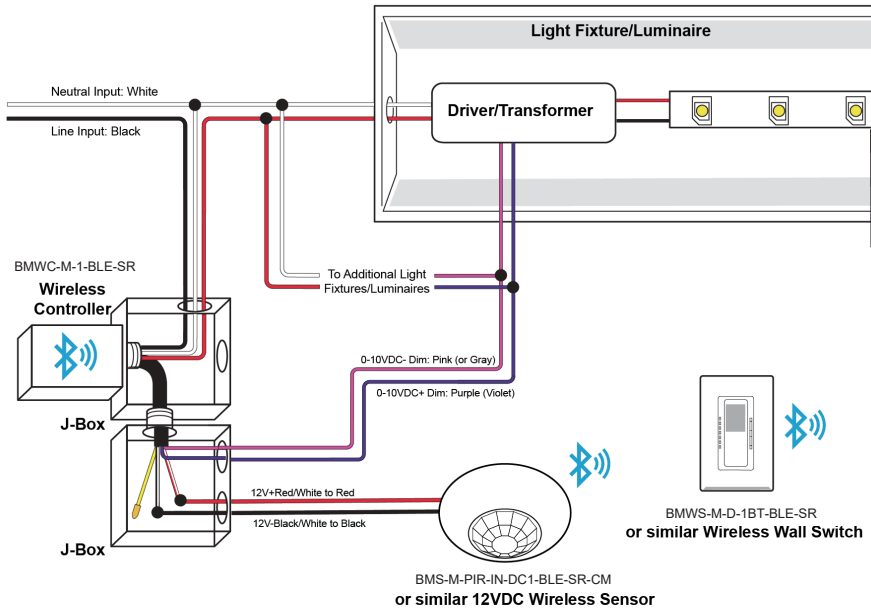
### Example: BMWC-M-1-BLE-SR

| Model No.       | Description   | Input Voltage | Relay | Dimming Output | Aux. Output | Sensor Input |
|-----------------|---|---------------|-------|----------------|-------------|--------------|
| BMWC-M-1-BLE-SR | Bluemesh™ Mesh Line Voltage Single Channel Wireless Room Controller with Integral Relay | 120-277VAC    | 20A   | 0-10V, 100mA   | 12V, 300mA  | YES          |

Design and specifications are subject to change without notice.

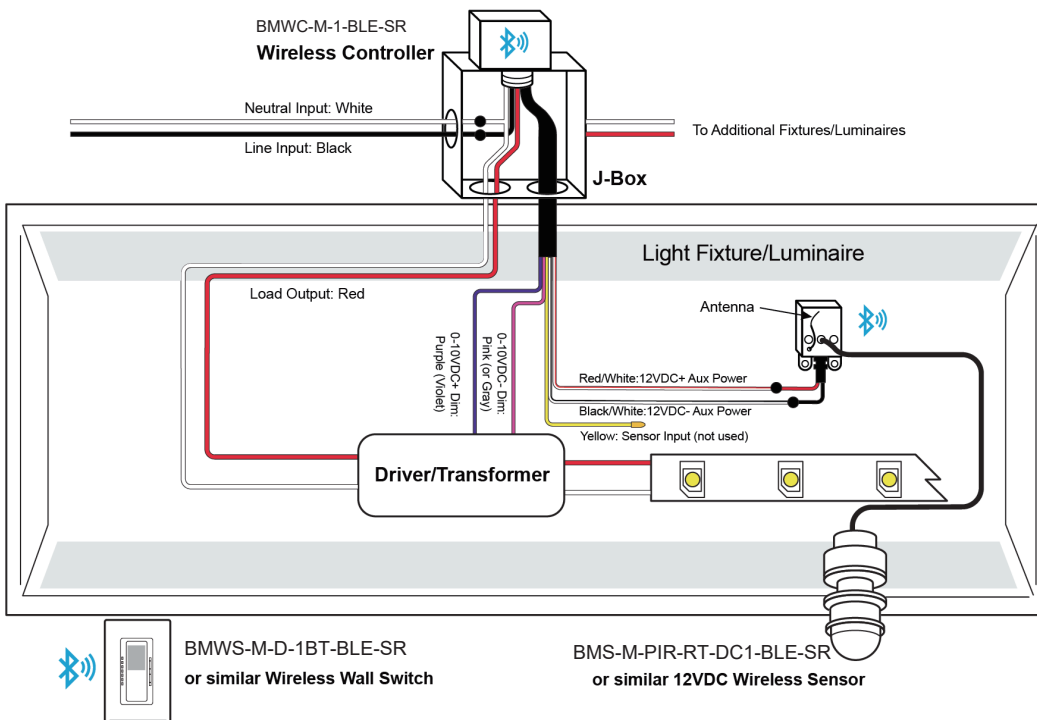
## WIRING DIAGRAM

### Wiring Application Example: Controller Installed in Electrical Enclosure with Wireless Sensor and Wireless Switch



Controller with Wireless Sensor, Wireless Wall Switch and 0-10V Driver

### Wiring Application Example: Controller Installed In Electrical Enclosure with Wired Sensor in Fixture and Wireless Switch



20A Zone Controller with 0-10V Dimmable Driver  
Fixture Mounted PIR Sensor and Wall Control