



## PRODUCT DESCRIPTION

The BMDM-R2421-1-AUX-BLE-SR Bluetooth Phase Load Dimmer delivers advanced lighting control in smart building systems, enabling flexible grouping and remote control through Bluetooth® mesh networking. Designed with standard knockouts, it features extended wireless range and robust construction for reliable performance.

## ORDERING INFORMATION

Description
Bluetooth Phase Load Dimmer
Part Number
BMDM-R2421-1-AUX-BLE-SR

## TECHNICAL DATA

Input	
Power Input	100–277VAC
Output	
Aux. Power	12VDC
Current	100mA
Max Current	2.1A
Wireless Protocol	Bluetooth®
Bluetooth Range	98ft (30m)
Operating Temperature	32°F to 104°F (0°C to 40°C)
Relative Humidity	8% to 80%
Certifications	UL listed, UL 2043 Plenum Rated
Dimension	3.24" x 2.16" x 1.22"
	82.5mm x 55mm x 31mm

## FEATURES

- Bluetooth phase dimmer.
- Compatible with BlueMesh switches.
- Built-in IoT/Sensor application interface.
- Easy junction box mounting with standard ½" knockouts.




### Bluetooth Mesh Networking

Functions as a certified Bluetooth® mesh node within the system, enabling flexible grouping and central management capabilities.

### Extended Wireless Range

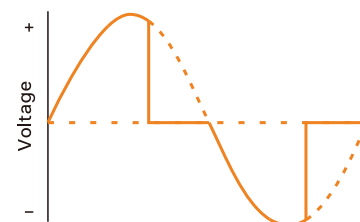
Equipped with an external antenna, it offers a typical robust Bluetooth mesh range exceeding 98ft/30m for reliable device communication.

### Compatible Load Types

Load Symbol	Load Type	Maximum Load
	Incandescent lighting HV Halogen lamps	1x252W@120V 1X504W@240V 1X415W@277V
	Low voltage halogen lighting with electronic transformers	1x252W@120V 1X504W@240V 1X415W@277V
	Dimmable LED lamps	1x126W@120V 1X252W@240V 1X207W@277V

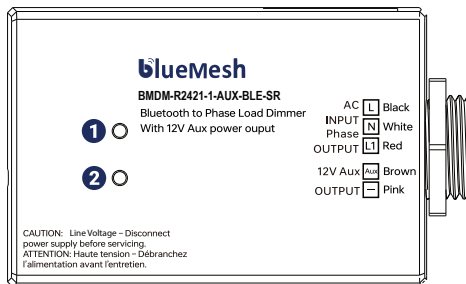
### Dimming

Reverse-phase/Trailing-edge control Voltage



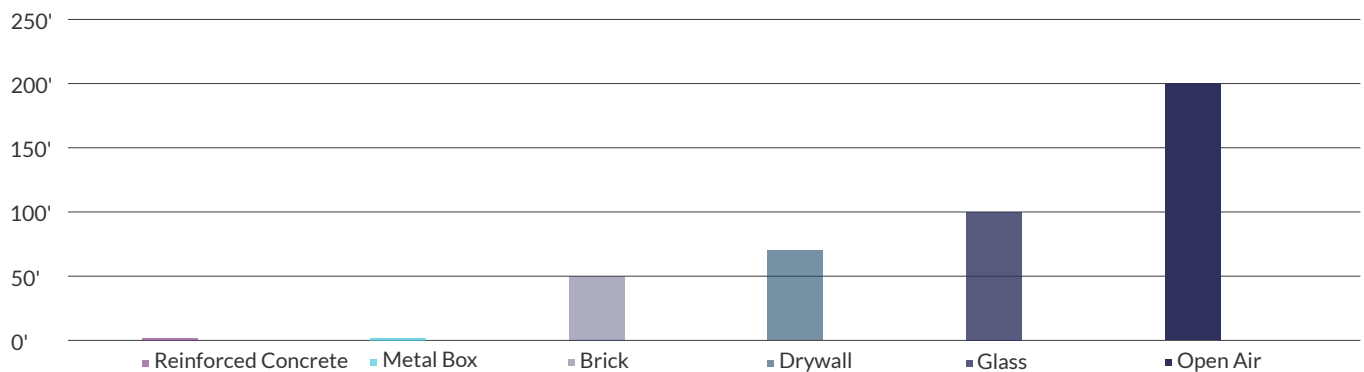
**Note:**  
Default: reverse-phase dimming, configurable to forward-phase.  
**Warning:**  
DO NOT expose the device to moisture.  
DO NOT install while power is applied to the device.  
WIRE according to the connection diagram.

### SPECIFICATION

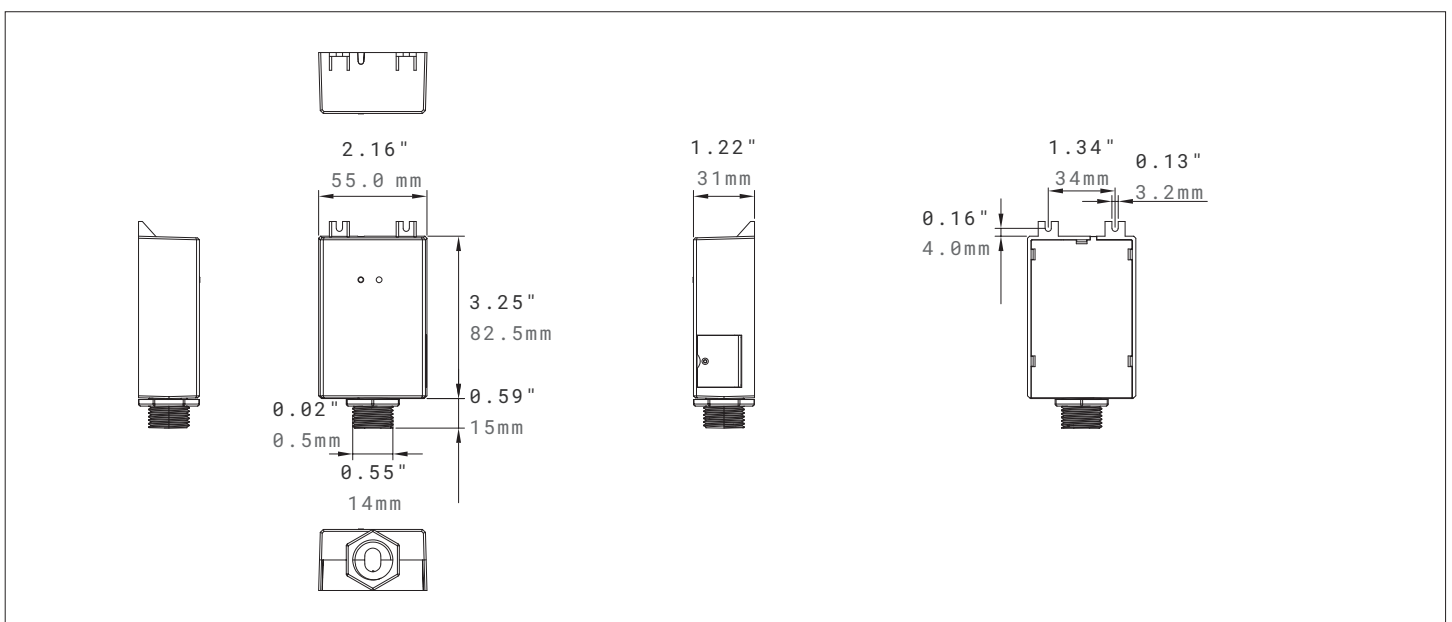


- 1 LED Indicator  
Indicates network status:  
Slow flash: Device associated with network  
Quick flash: Device not associated with network
- 2 Reset Button  
Reset: Hold for 5 seconds  
Confirmation: LED quick flashing indicates successful reset

### Devices Communication Distance

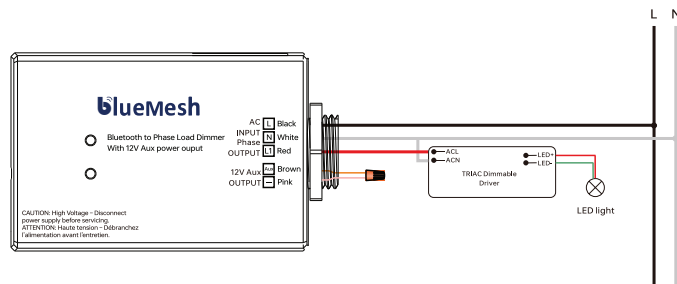


### DIMENSIONS

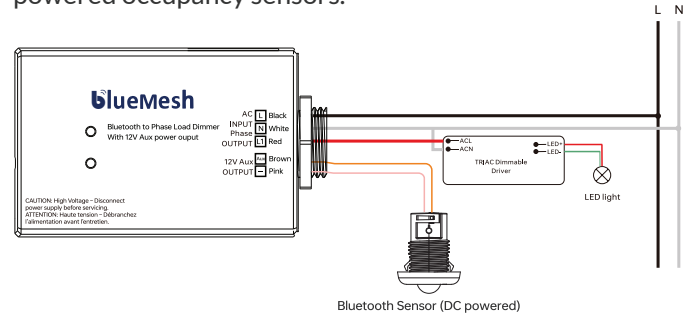


### WIRING

#### 1. Wiring with Phase-dimming driver.

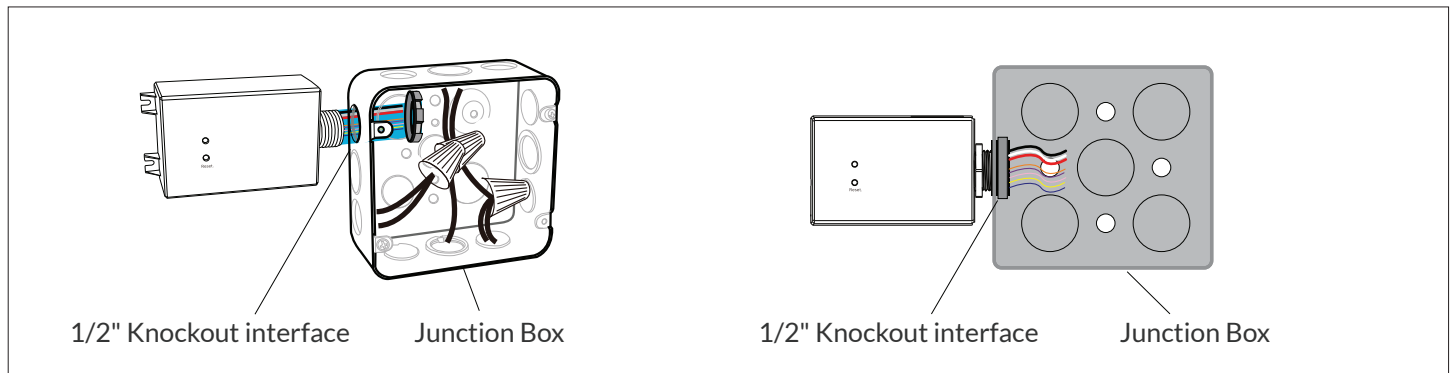


#### 2. Wiring with Phase-dimming driver and BlueMesh DC powered occupancy sensors.



Ref#: 20250728

### INSTALLATION



### WARRANTY

5 years limited warranty.