



## PRODUCT DESCRIPTION

The BMS-R9030A-PIR-DC-BLE-SR-WH sensor integrates PIR motion detection with Bluetooth® mesh networking, providing reliable occupancy sensing and group lighting control for high-bay environments. Its self-healing wireless network ensures robust connectivity, ideal for large-scale industrial lighting automation.

## ORDERING INFORMATION

### Description

0-10V BLE Ceiling Mounted PIR Sensor Controller

### Part Number

BMS-R9030A-PIR-DC-BLE-SR-WH

## TECHNICAL DATA

### Input

Power Input	12-24VDC
Signal Input	Bluetooth®
Output, (0/1-10V)	Max. Current 20mA
Dimming Curve	Logarithmic
Dimming Method	PWM
Wireless Protocol	Bluetooth®
Max Bluetooth Range	82ft (25m)
Wireless Range	66 to 82ft (20 to 25m), typical
Operating Temperature	32°F to 113°F (0°C to 45°C)
Relative Humidity	8% to 80%
Antenna	On-board
Certification	FCC certified

## FEATURES

- Ceiling-mounted sensor controller.
- Supports BlueMesh switches.
- Daylight harvesting.
- Mobile app controls all devices.
- On-board antenna.

### Smart Networking

The Bluetooth mesh network extends control range by relaying signals between devices, enabling broader coverage. All 0-10V compatible devices can be centrally managed via a mobile application.

### Advanced Sensing

Combines PIR occupancy/vacancy detection with daylight harvesting. Automatically adjusts artificial lighting levels based on presence and the availability of natural light.

**Wireless Range** The wireless range reaches up to 82ft(25m) in typical indoor conditions. Actual performance varies based on installation factors.

### Compact Design

On-board antennas simplify lighting control installations with compact and reliable wireless connectivity. Magnetic reset available.

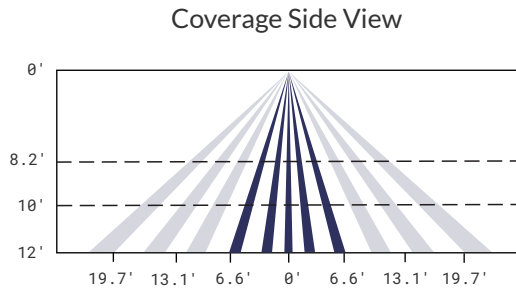
### Energy Optimization

This system maximizes efficiency by combining daylight harvesting, occupancy/vacancy detection, and scheduled dimming with demand-response programs. It features automatic illumination adjustment, energy monitoring, and trimming controls for precise light-level management.

### Seamless User Experience

Enhances comfort and simplifies lighting control with advanced occupancy detection, stable light levels, configurable dim-and-prolong hold times, personalized setting profiles, kinetic switch/dimmer compatibility, and multi-scene activation for intuitive ambiance adjustment.

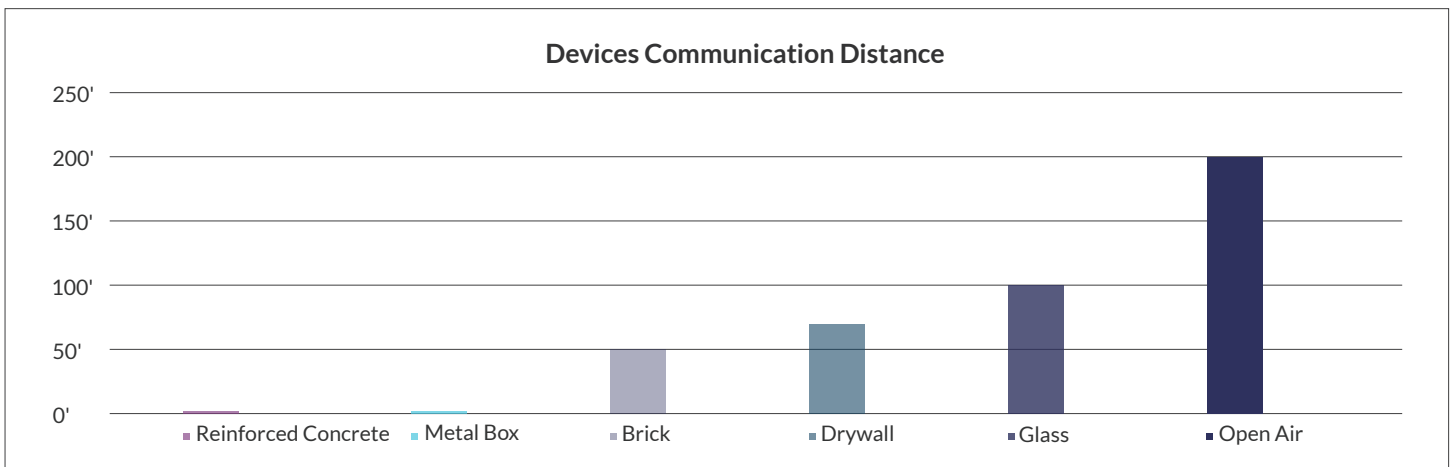
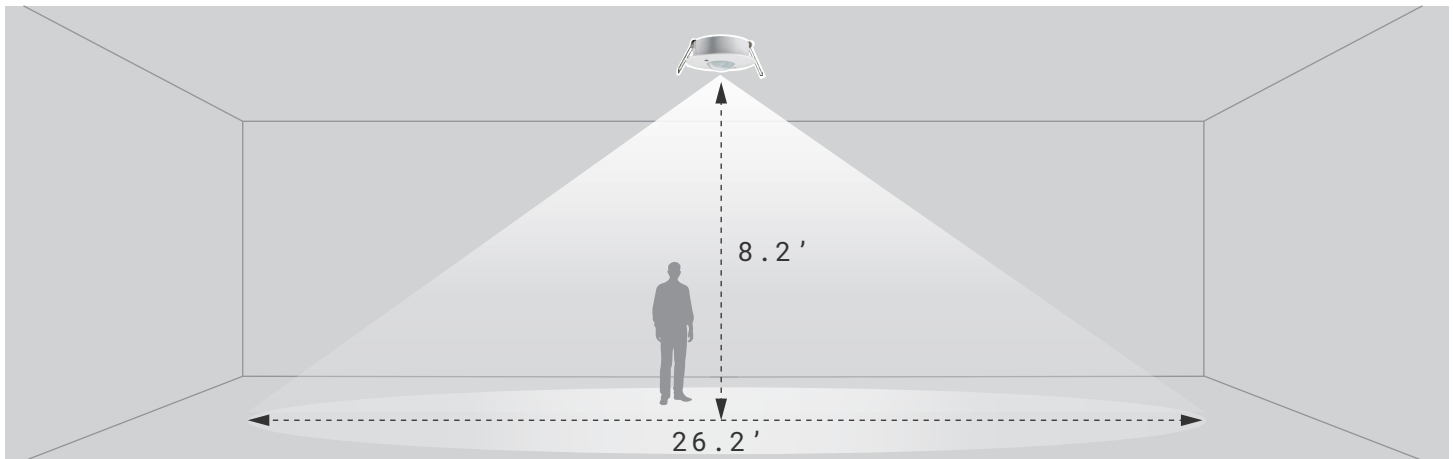
### DETECTION COVERAGE PATTERN



The detection area for movement can be roughly divided into two parts.

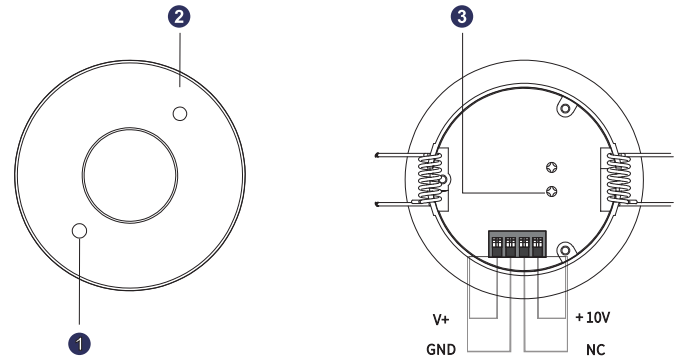
- Slow movement (person moving  $< 1.0/s$  or  $0.3m/s$ )
- Quick movement (person moving  $> 1.3/s$  or  $0.4m/s$ )

Testing Height: 8.2ft/ 2.5m

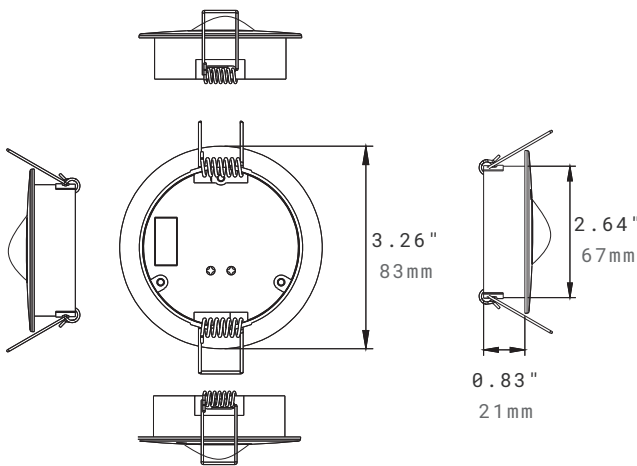


### SPECIFICATION

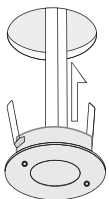
- ❶ Light sensor: Ambient light detection and daylight harvesting.
- ❷ Presence indicator.
- ❸ Reset Key: Long press will return the device to factory settings and unassociate it from the Bluemesh network. Quick flashing on the LED indicates success.



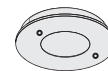
### DIMENSIONS



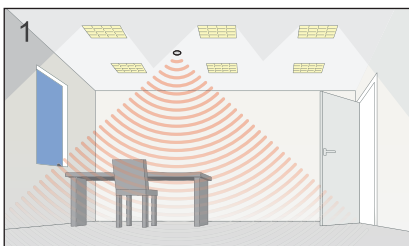
### APPLICATION



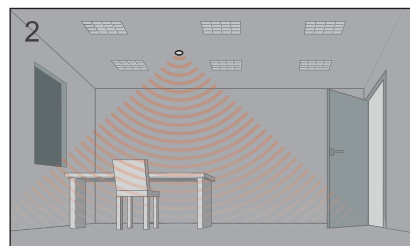
Bend the springs upward and push the detector through the ceiling hole. Once fully inserted, the springs will snap back to secure the device in place. **CAUTION:** Exercise care when bending springs to avoid injury.



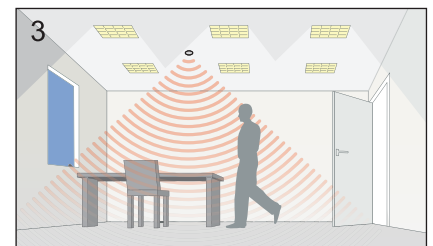
Installation complete.



1. Powerup the sensor. The load should come on immediately.

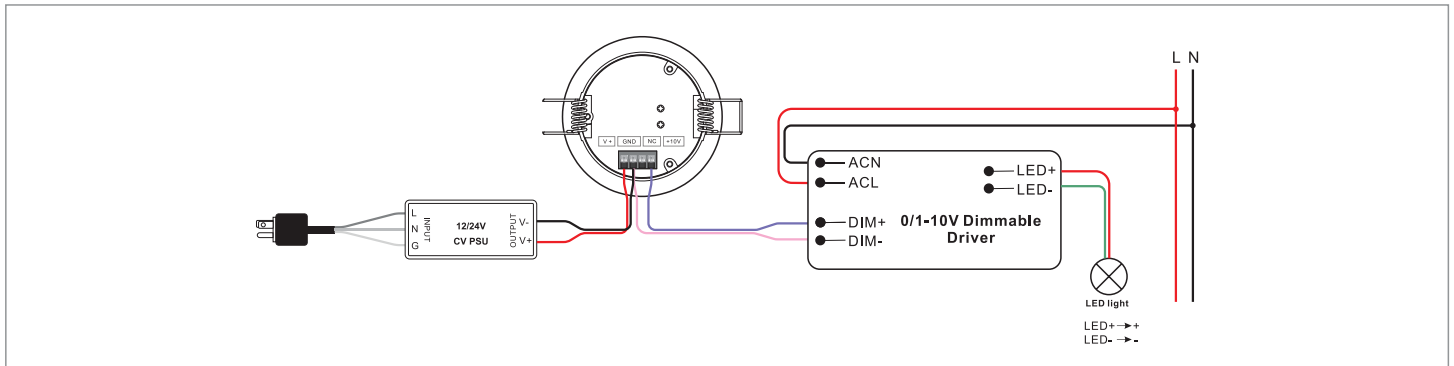


2. Vacate the room or remain very still and wait for the load to switch off.



3. Enter the room or make some movement and check that the load switches on.

## WIRING



### NOTE:

1. Wire according to the connection diagram.
2. For pairing instructions, refer to the *BlueMesh Commissioning User Manual*.
3. To reset:
  - A. Hold a magnet near the top of the sensor for 5 seconds, OR
  - B. Press and hold the reset button for 5 seconds.
 A flashing indicator light confirms reset.

## CAUTIONS

### Avoid areas with frequent temperature changes

Maintain at least 12" clearance from air conditioners, fans, refrigerators, ovens, or other sources of rapid temperature shifts. PIR motion sensors' detection accuracy is temperature-sensitive; proximity to vents or heat sources may cause false alarms.

### Avoid areas with significant airflow

Install sensors  $\geq 12"$  from air diffusers or ventilation outlets.

### Avoid direct alignment with glass doors/windows

Do not face sensors toward glass surfaces to prevent light interference and false triggers.

### Account for obstructions

Consider placement relative to screens, furniture, large plants, or other objects that may block detection paths.

### Avoid direct sunlight exposure

Do not position sensors where lenses receive direct sunlight.

## WARRANTY

5 years limited warranty.