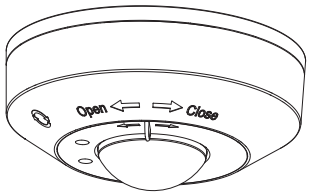
BLE to 0-10V AC PIR Sensor
Ceiling Mounted With Relay



PRODUCT DESCRIPTION

The BMS-R9030B-PIR-1-BLE-SR-WH sensor integrates PIR motion sensing with Bluetooth® Mesh connectivity, enabling 0-10V dimming and relay control capabilities in ceiling-mounted fixtures. It supports group control, advanced scheduling, and flexible configuration settings for both low- and high-bay installations.

ORDERING INFORMATION

Description
0-10V Dimming Snap in PIR Occupancy Sensor
Part Number
BMS-R9030B-PIR-1-BLE-SR-WH

TECHNICAL DATA

Sensor Type	Passive infrared sensor
Operating Voltage	100–277VAC, 50/60Hz
Stand-by Power	<0.5W
Relay	Max 5A @ 120V/277VAC
Mounting Height	40ft (12m) max
Operating Temperature	14°F to122°F(-10°C to 50°C)
Max Bluetooth Range	100ft(30m)
Wireless Protocol	Bluetooth® SIG mesh
Certification	ENEC, CE , RED,UL, FCC
	Bluetooth® NLC
IP Rating	20
Protection Class	Class II
Material	Flame-retardant ABS
Terminal block/wire size	
AC Line	18 AWG
Signal Line	22 AWG
Wire Strip Length	0.39in (10mm)

FEATURES

- Detection and daylight harvesting
- Bluetooth® NLC Certified with Mesh networking.
- Personalized scene and time-based lighting control.
- Compatible with kinetic switch keypads and dimmer wall stations.
- Dimming support with relay output.
- Available with Magnetic reset.
- Onboard antenna.

Smart Control
Bluetooth® mesh networking enables reliable group control and mobile app management of all 0–10V devices.

Energy Efficiency
Supports daylight harvesting, occupancy/vacancy sensing, and time-of-day dimming schedules to optimize energy use.

Flexible Detection
Includes interchangeable low-bay and high-bay lenses, plus PIR sensitivity adjustment to fit various ceiling heights and layouts.

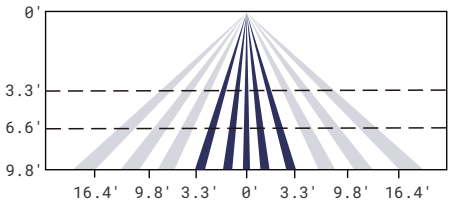
Compact Simplification
Compact design with onboard antenna and magnetic reset simplifies setup and reduces wiring complexity.

Reliable Performance
Built to meet international EMC and safety standards with 5-year warranty and robust flame-retardant ABS housing.

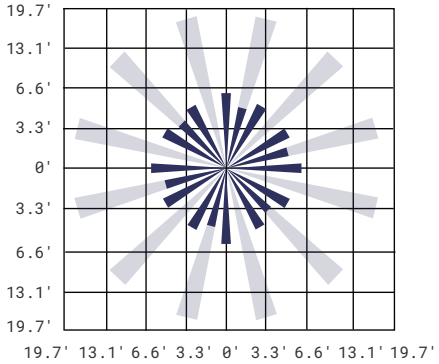
Safety & EMC
EMC standard (EMC): EN55015, EN61000, EN61547
Safety standard (LVD): EN60669-1, EN60669-2-1
AS/NZS60669-1/-2-1
RED: EN300328, EN301489-1/-17

DETECTION COVERAGE PATTERN

Coverage Side View



Coverage Top View



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

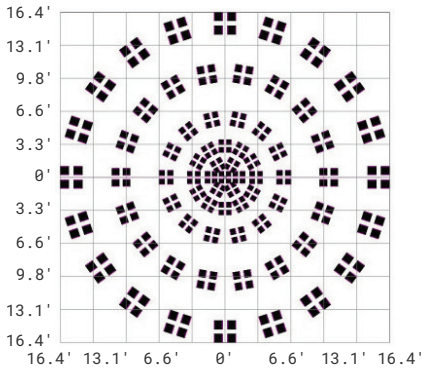
- Slow movement (person moving < 1.0'/s or 0.3m/s)
- Quick movement (person moving > 1.3'/s or 0.4m/s)

Default sensitivity:80% (Ø 29.5'at 9.8' height)

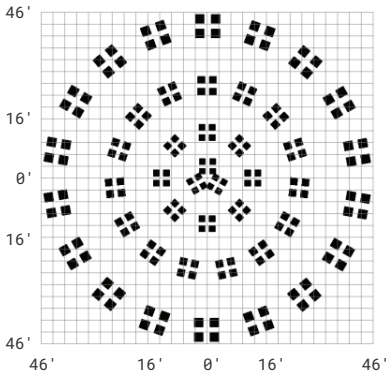
Detection Area

Note:

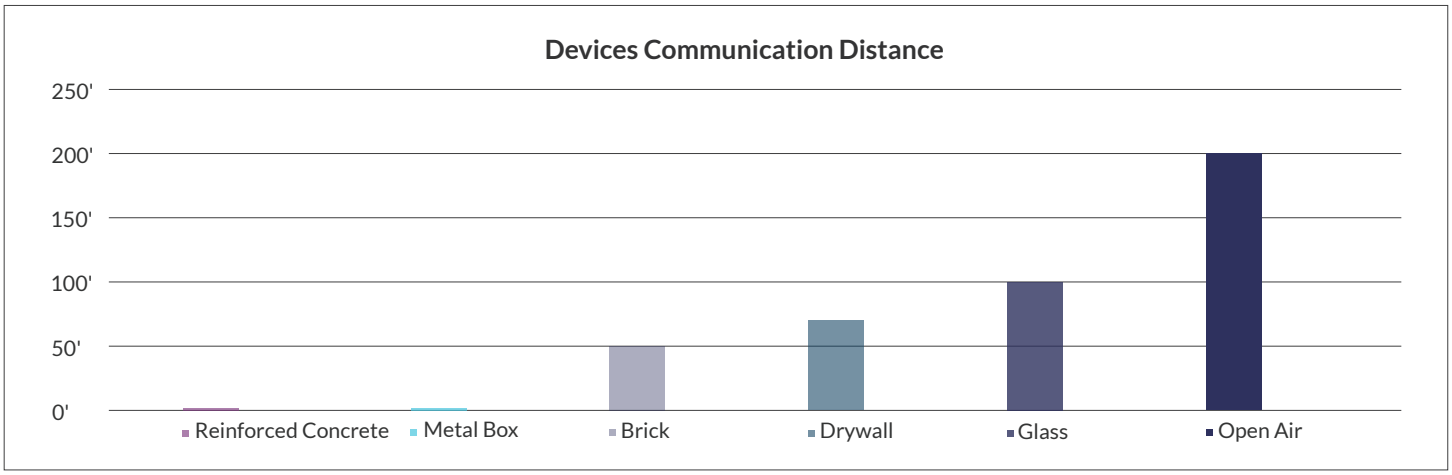
1. The Following diferent detection patterns are based on different installation heights & patterns.
2. The detection pattern will vary on site conditions such as actual mounting height, ambient temperature, humidity, obstructions, etc.



Low-bay lens detection pattern at 9.8'

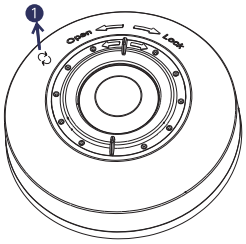


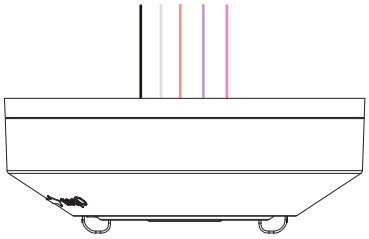
High-bay lens detection pattern at 9.8'



SPECIFICATION

Reset: Hold a magnet at the reset icon ❶ for 5 seconds to reset the device.



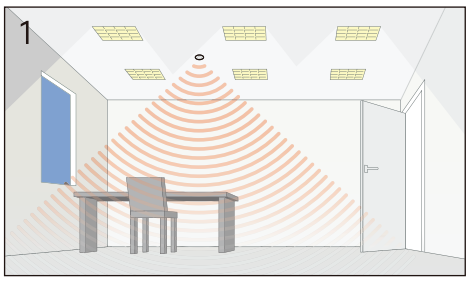


Cable Wiring:
L (Input) : Black, 18 AWG
N (Input) : White, 18 AWG
L'(Output) : Red, 18 AWG
Dim+ (Input) : Violet, 22 AWG
Dim- (Input) : Pink, 22 AWG

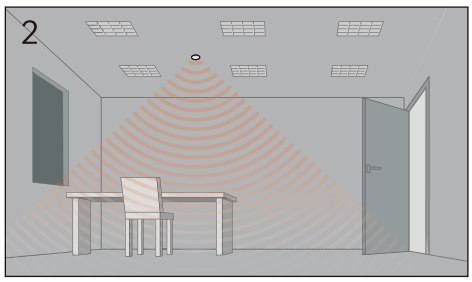
Package information

1x Sensor with Low-bay lens (default).
1x High-bay lens (Free to switch when project requires indicating for high mounting applications).
1x PIR Lens cover (Adjusts detection pattern based on application needs; used for modifying PIR coverage patterns).
1x A set of screws (included).

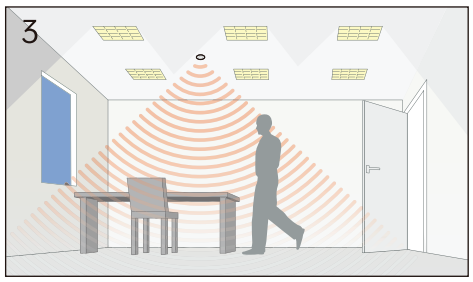
APPLICATION



1. Power up 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. Enterthe room or make some movement and check that the load switches on.

PRECAUTIONS

- Do not place the SENSOR near heat sources, fans or in ventilated ceiling voids.
- Do not place close to, or positioned such that, any light source points directly into the SENSOR.
- Ensure wires and cables are securely held within the connection terminals.
- Disconnect the SENSOR from the circuit before performing insulation testing of the wiring circuit.

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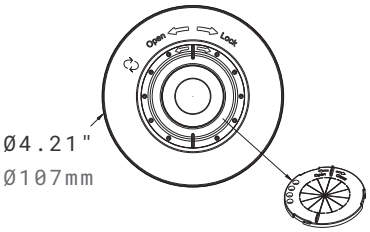
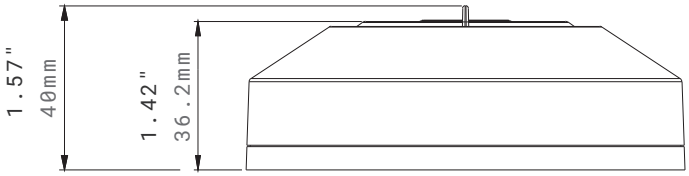
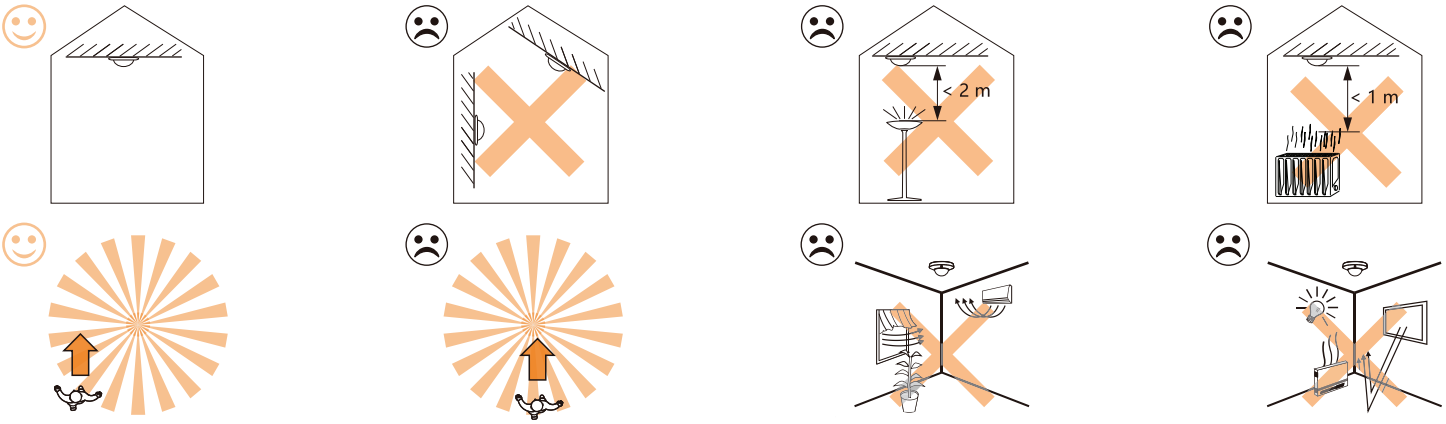
DIMENSIONS





Lens mask: Free to manage detection pattern.

PLACE/DETECTION INSTRUCTION



CAUTIONS

Avoid areas with frequent temperature changes

Keep away from air conditioners, fans, refrigerators, ovens, and other objects that cause rapid temperature changes. The detection efectiveness of PIR motion sensors is closely related to temperature fluctuations, and vents or heat sources can lead to false alarms.

Avoid areas with significant air flow

Install sensor a minimum 12" away from all air diffusers.

Avoid facing glass doors and windows directly

Do not face glass doors and windows directly to avoid interference from strong light reflections or direct sunlight.

Consider the placement of screens, furniture, large potted plants, or other obstacles when mounting the sensor as this will impact detection.

Avoid exposing lens to direct sunlight

Do not position sensors where lenses receive direct sunlight

WARRANTY

5 years limited warranty.