blueMesh

APPLICATIONS

The BMS-M-PIR-IN-DC1-BLE-SR (standard) uses PIR Motion Detector Architecture and passive infrared (PIR) technology for improved detection coverage for ceiling or fixture mount, high bay, and low bay applications.

The BMS-M-PIR-IN-DC1-BLE-SR is a Class 2 Device designed to satisfy CA Title 24 requirements for dimming* of lighting fixtures.

The sensor is suitable for a variety of indoor applications. It supports fixture mounting up to 40 ft (12.2 m) high. Both sensor and power pack are rated for use in temperatures ranging from -30° to 70°C and relative humidity from 90 to 95%.

OVERVIEW

- Low Profile PIR sensor
- Mounts in Fixture
- Bluetooth® SIG mesh
- High-End Trim, Zoning, Continuous Dimming
- LED Motion indicator
- Active High output for relay drive
- Mounting height up to 40 ft (12.2m)
- Conforms with DLC NLC5
- Cybersecurity Standards

*For dim to off, BlueMesh® Power Pack or LED dimming driver capable of dimming to off is required.

SUMMARY

Sensor Type:
PIR occupancy sensor

Input Voltage | Current Consumption:
12-24 VDC | 50 mA
0-10V Output: 150 mA

Height:
Mounting Height: - High Bay:
Fixture or ceiling mount up to 40ft (12.2m)
Mounting Height: - Low Bay:
Fixture or ceiling mount up to 30ft (9.1m)

Sensor Range:
Max Sensor Range: High Bay:
40ft (12.2m) radius
Max Sensor Range Low Bay:
30ft (12.2m) radius
Max Bluetooth Range[1] 100ft (30.4m)

Operating Temperature:
-30°C to 70°C (-22°F- 158°F)

Storage Temperature:
-40° C to 80°C (-40°F- 176°F)

Relative Humidity:
90-95% non-condensing at 30°C

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.

SENSOR OPERATION

BlueMesh® Controls:
Qualified by Bluetooth SIG for its Bluetooth Mesh 1.0.1 specification, the sensor connects to a Bluetooth mesh network and is accessed via the BlueMesh web portal or mobile app for initial design, setup and scheduling, as well as subsequent parameter adjustments. Advanced functionality such as energy monitoring, and demand response is available with the optional BlueMesh Gateway.

Dimming:
0-10V dimmer connects to 0-10V control on the LED driver.

Relay Control:
An additional High Control output can be used to trigger relays or other control circuitry.

See BlueMesh® Commissioning User Manual for more info.
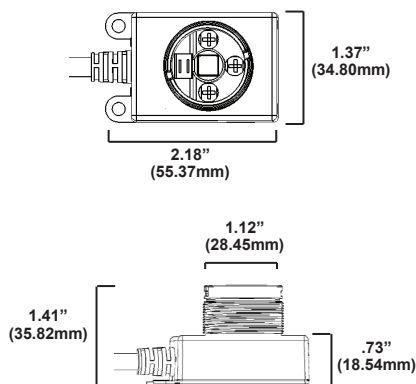
ACCESSORIES

Power Pack:
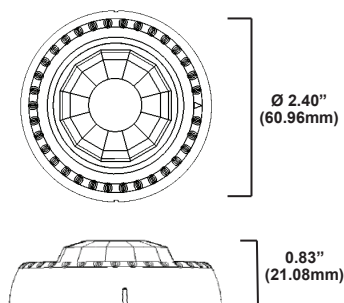The PIR occupancy sensor operates on 12-24 VDC input and requires a separate power pack.

Alternatively, the sensor can operate with a driver that has an auxiliary output (12 V).

PHYSICAL DIMENSIONS

Standard Housing

1.37"
(34.80mm)

2.18"
(55.37mm)

1.12"
(28.45mm)

1.41"
(35.82mm)

.73"
(18.54mm)

Lens Cover

Ø 2.40"
(60.96mm)

0.83"
(21.08mm)

ORDERING INFORMATION

Example: BMS-M-PIR-IN-DC1-BLE-SR

Model No.	Description	Input Voltage	Output
BMS-PIR-IN-DC1-BLE-SR	Passive Infrared (PIR) Occupancy Sensor with Bluetooth Mesh Feature	12-24VDC	0-10VDC Control High Control Low
Add Suffix for options:	**Add Suffix for options:**		
LS01-LB-WH	360° Low Bay Lens, maximum coverage 60ft diameter at 30ft height, White Color		
LS01-LB-BN	360° Low Bay Lens, maximum coverage 60ft diameter at 30ft height, Brown Color		
LS01-LB-BK	360° Low Bay Lens, maximum coverage 60ft diameter at 30ft height, Black Color		
LS01-HB-WH	360° High Bay Lens, maximum coverage 70ft diameter at 40ft height or 80ft diameter at 32ft height, White Color		
LS01-HB-BN	360° High Bay Lens, maximum coverage 70ft diameter at 40ft height or 80ft diameter at 32ft height, Brown Color		
LS01-HB-BK	360° High Bay Lens, maximum coverage 70ft diameter at 40ft height or 80ft diameter at 32ft height, Black Color		

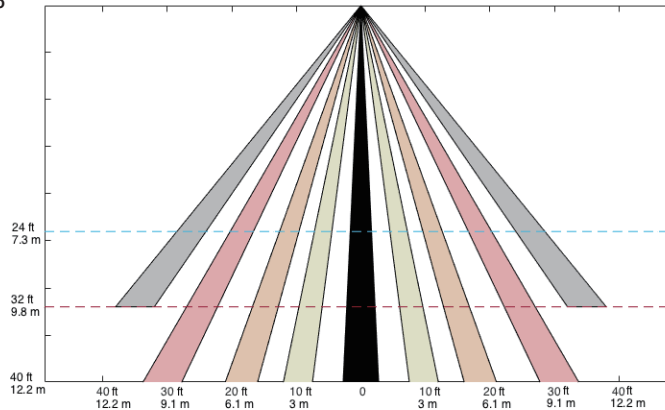**For Line to Low Voltage Power Supply/Controller, please check Bluemesh power pack.**
Design and specifications are subject to change without notice.
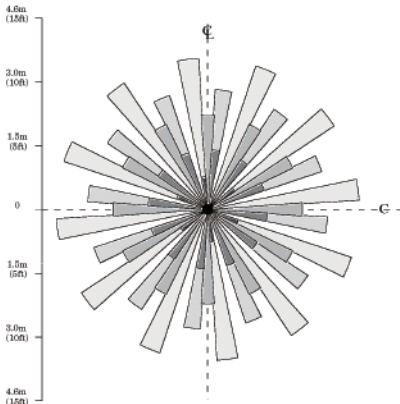
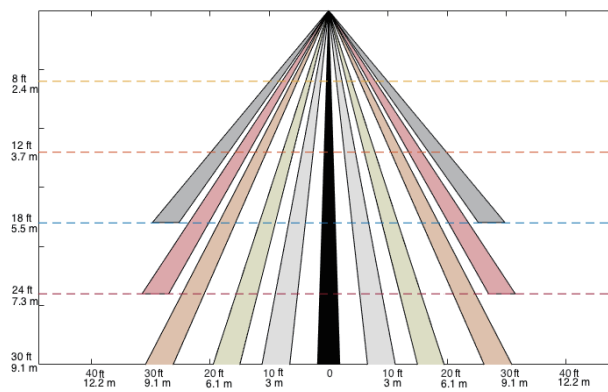## DETECTION AREA

HBL: High Bay Lens-Top View at 8 ft (2.4m)

HBL - Side View

Corresponding to the Arrow on Gasketed Lens
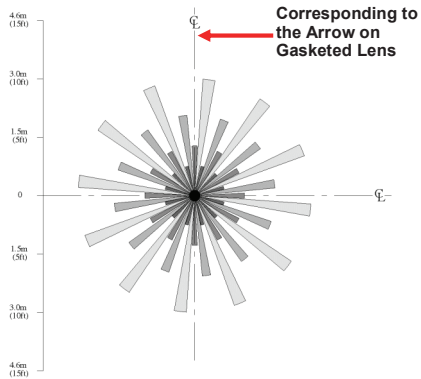
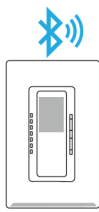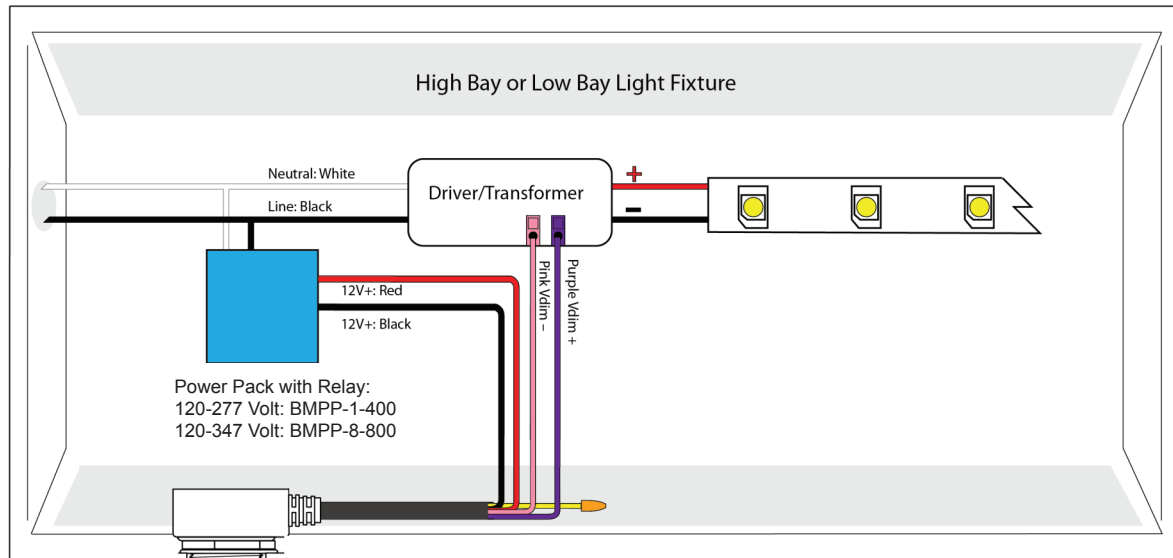**LBL: Low Bay Lens-Top View at 8 ft (2.4m)**

LBL - Side View

Lenses are available in:
High Bay Lens for mounting height at 20-40 ft (6.1-12.2 m).
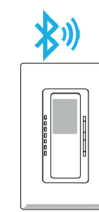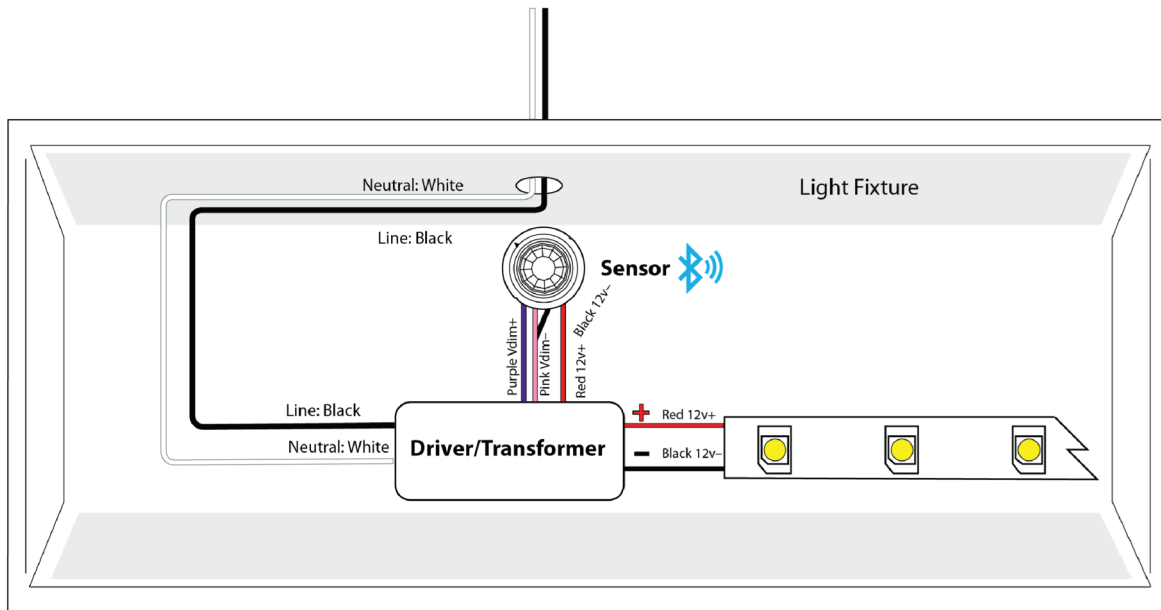Low Bay Lens for mounting height at 8-30 ft (2.4-9.1 m)

WIRING DIAGRAM

Wiring Diagram and Fixture Mount

High Bay or Low Bay Light Fixture

Neutral: White

Line: Black

Driver/Transformer

+

−

12V+: Red

12V+: Black

Pink Vdim −

Purple Vdim +

Power Pack with Relay:
120-277 Volt: BMPP-1-400
120-347 Volt: BMPP-8-800

BMS-M-PIR-IN-DC1-BLE-SR

In Fixture PIR High/Low Bay Sensor
with Power Pack and Wireless

Dim to Off Driver with 12v Auxiliary Power

Neutral: White

Line: Black

Sensor

Purple Vdim+

Pink Vdim−

Red 12v+

Black 12v−

Light Fixture

Line: Black

Neutral: White

Driver/Transformer

+ Red 12v+

− Black 12v−

Typical for Bluemesh Sensors with DIM to OFF and 12v Aux:
BMS-M-PIR-RT-DH-DC1-BLE-SR,
BMS-M-PIR-RT-DC1-BLE-SR, BMS-M-PIR-IN-DC1-BLE-SR

**LED DIM to Off with 12v Auxiliary Output,
Fixture Mounted Sensor, Wireless Dimmer**

INSTALLATION

Nut

Gaskets

Nut

Inside Plenum side of ceiling.

Tightening Nuts

Gaskets

Outside Underside of ceiling

Inside Plenum side of ceiling.

Tightening Nuts

Lens Assembly

Outside Underside of ceiling
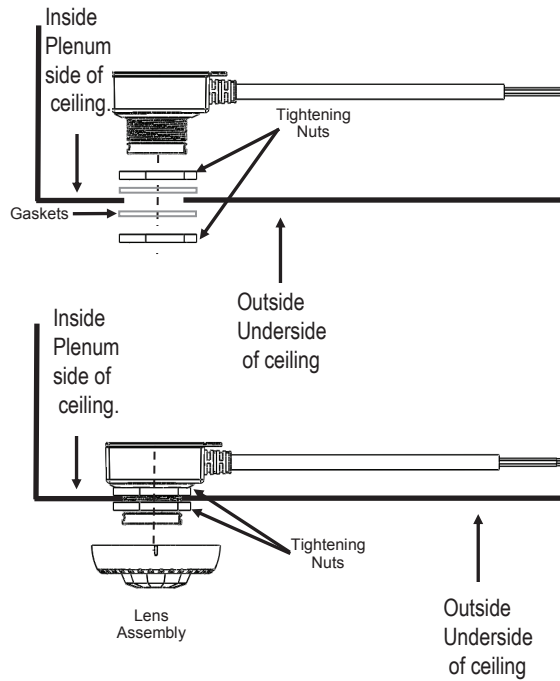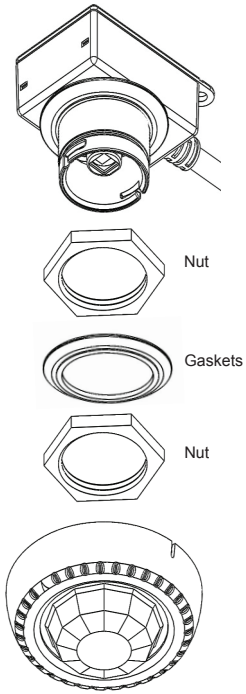
WARRANTY

Five year limited warranty.

Specifications subject to change without notice.