blueMesh

APPLICATIONS

The BMS-M-PIR-RT-DC1-BLE-SR uses digital PIR Occupant Sensor Architecture and Dual Element passive infrared (PIR) technology for improved detection coverage for indoor ceiling, or acoustical tile mount applications. The sensor is ideal for LLLC (Luminaire Level Lighting Control) strategies in larger areas like open offices, cafeterias, corridors where it is desired to maximize granular energy savings.

The BMS-M-PIR-RT-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 heights up to 9 ft (2.7m). Both sensor and power pack are rated for use in temperatures ranging from -30° to 70°C and relative humidity from 90 to 95% at 30°C.

For Ceiling Mount Version see data sheet BMS-M-PIR-RT-DC1-BLE-SR-CM

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

OVERVIEW

- PIR and Daylight sensor
- Mounts in Fixture
- Bluetooth® SIG mesh
- High-End Trim, Zoning, Continuous Dimming
- LED Motion indicator
- Active High output for Relay drive
- Mounting height of 10ft (3m)
- Conforms with DLC NLC5 Cybersecurity Standards

SUMMARY

Sensor Type:
PIR Occupancy/Vacancy Sensor

Input Voltage | Current Consumption:

12-24 VDC | 50 mA
0-10V Output: 30mA
Output: Active High Vin-2.5V 30mA source
Height:
Mounting Height:
Fixture mounting height at 10ft (3m)
Sensor Range:
Max Sensor Range:
10ft (3m) radius
Max Bluetooth Range [1]:
100ft (30.4m)
Operating Temperature:

-30° C to 70°C

Storage Temperature:

-40° C to 80°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.

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.
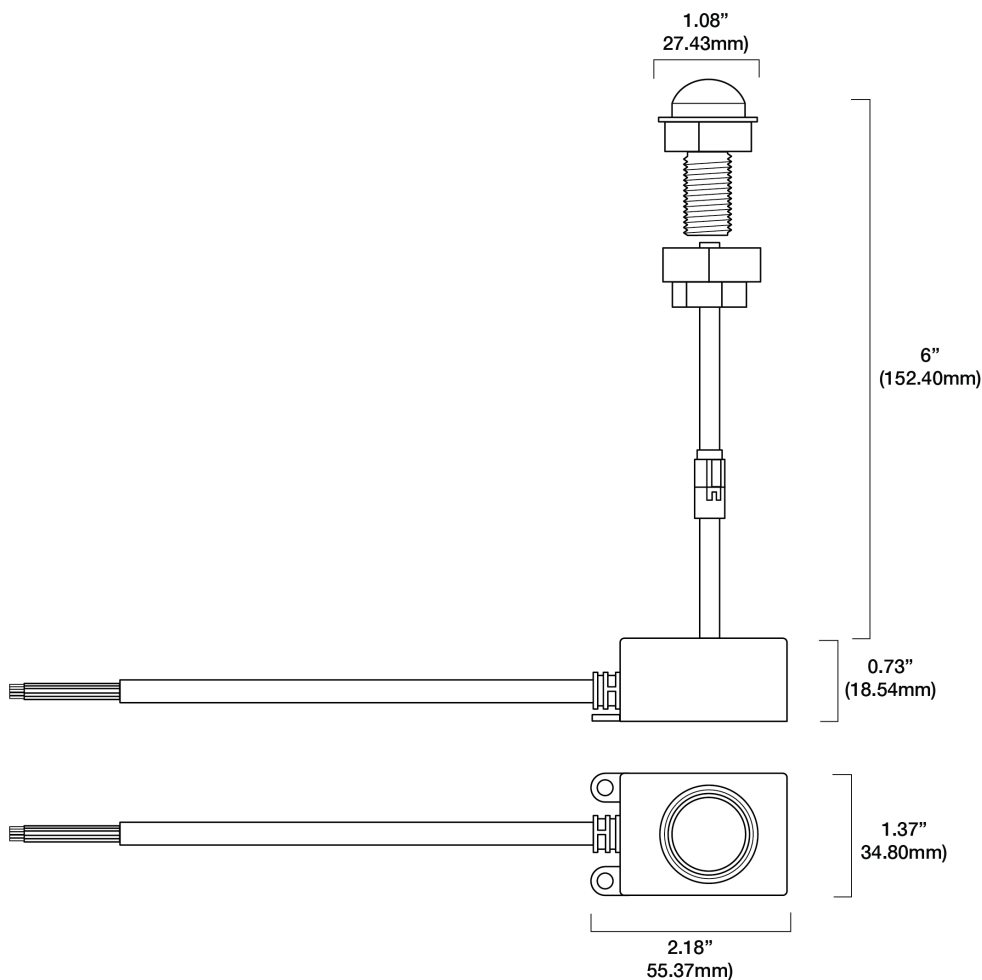
See BlueMesh® Commissioning User Manual for more info.

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

1.08"
27.43mm)
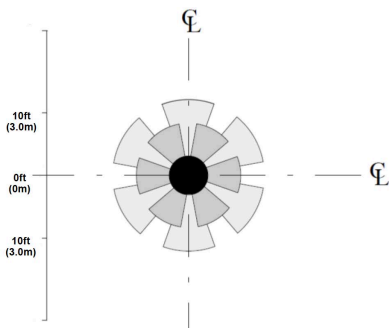
6"
(152.40mm)

0.73"
(18.54mm)

1.37"
34.80mm)

2.18"
55.37mm)

ORDERING INFORMATION

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

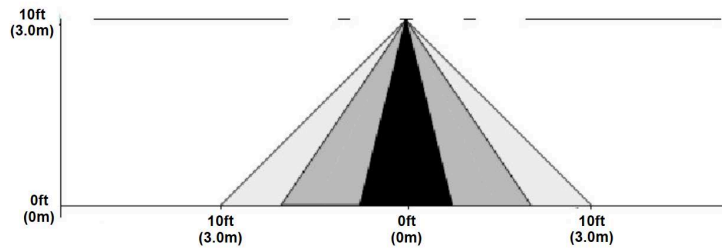| Model No.	Description	Input Voltage	Dimming Output	Output
BMS-M-PIR-RT-DC1-BLE-SR	Passive Infrared (PIR) Fixture Mount Occupancy Sensor, BlueMesh® Silvair technology partner	12-24VDC	0-10V, 30mA	Active High

For Line to Low Voltage Power Supply/Controller, please check BlueMesh power pack.
Design and specifications are subject to change without notice.

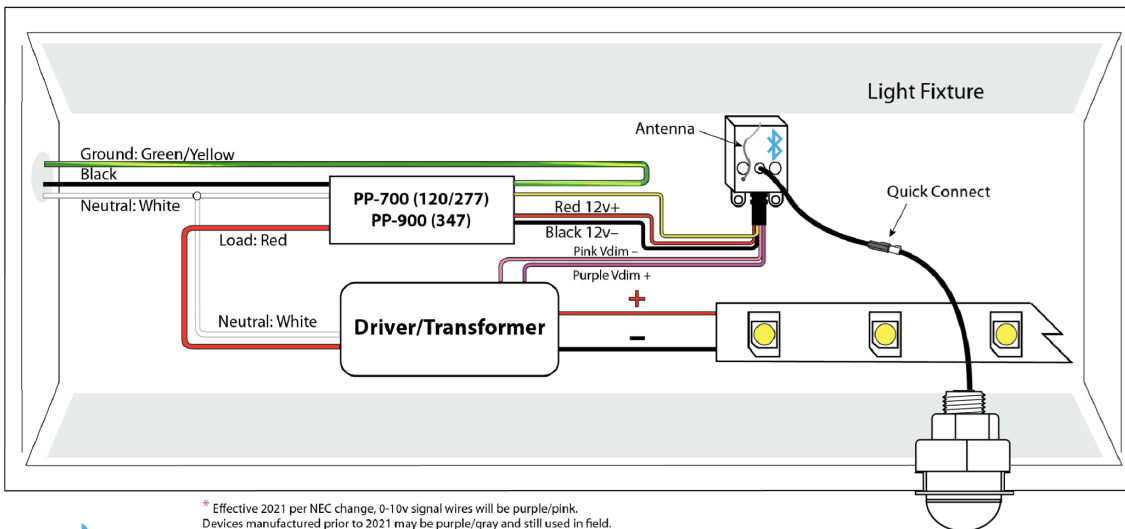## DETECTION AREA

Floor Coverage at 10 ft (3.0m)

Side View

WIRING DIAGRAM

Wiring Diagram and Fixture Mount

Light Fixture

Antenna

Quick Connect

Ground: Green/Yellow
Black
Neutral: White

PP-700 (120/277)
PP-900 (347)

Red 12v+
Black 12v–
Pink Vdim –
Purple Vdim +

Load: Red
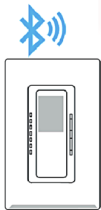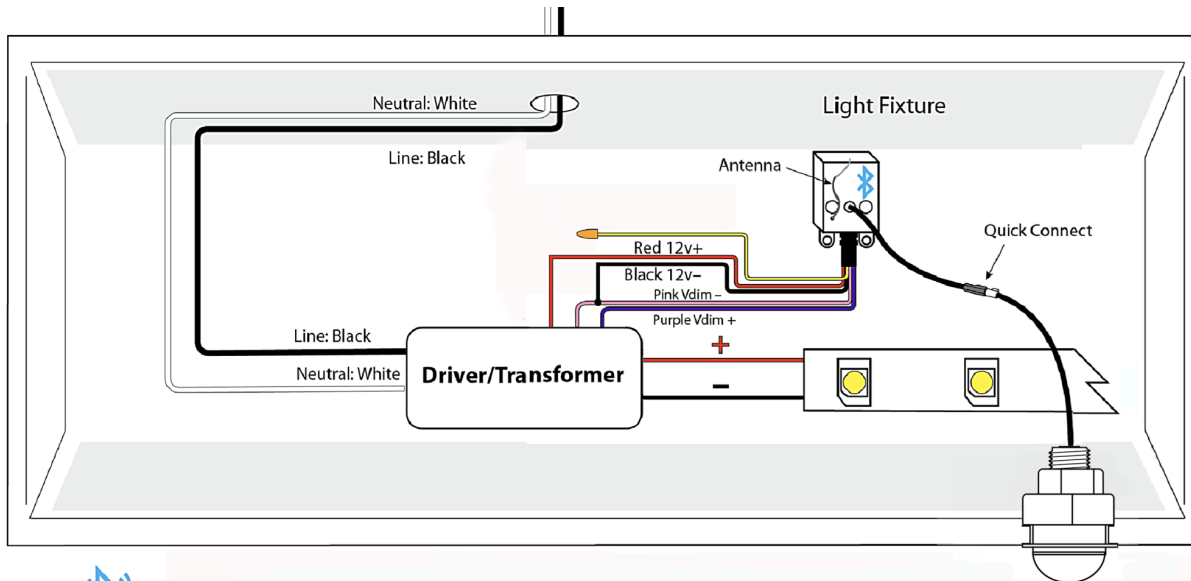
Neutral: White

Driver/Transformer

* Effective 2021 per NEC change, 0-10v signal wires will be purple/pink.
Devices manufactured prior to 2021 may be purple/gray and still used in field.
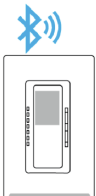
0-10 Volt Dimming Driver, PP-700 or PP-900, PIR Sensor

PSC-BL-I-RT-DC0-BLE-SR
Fixture Mount PIR
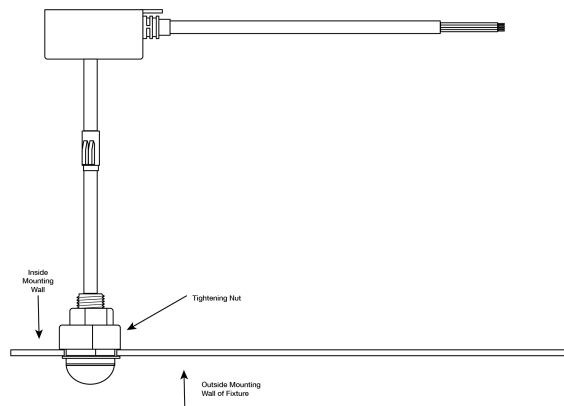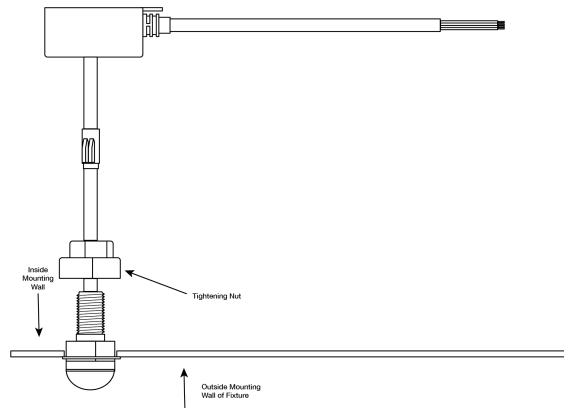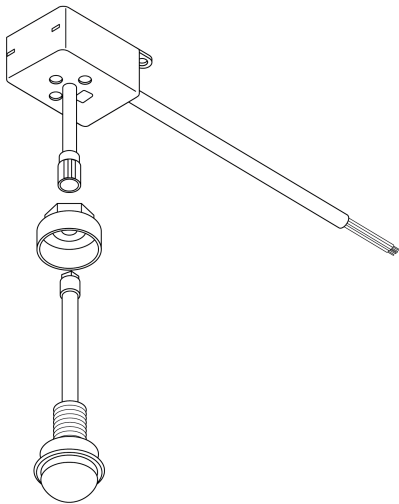
Wireless Dimming Fixture Mount PIR Sensor

Dim to Off Driver with 12v Auxiliary Power

Typical for McWong Fixture Mount Sensors with DIM to OFF and 12V Auxiliary Power:
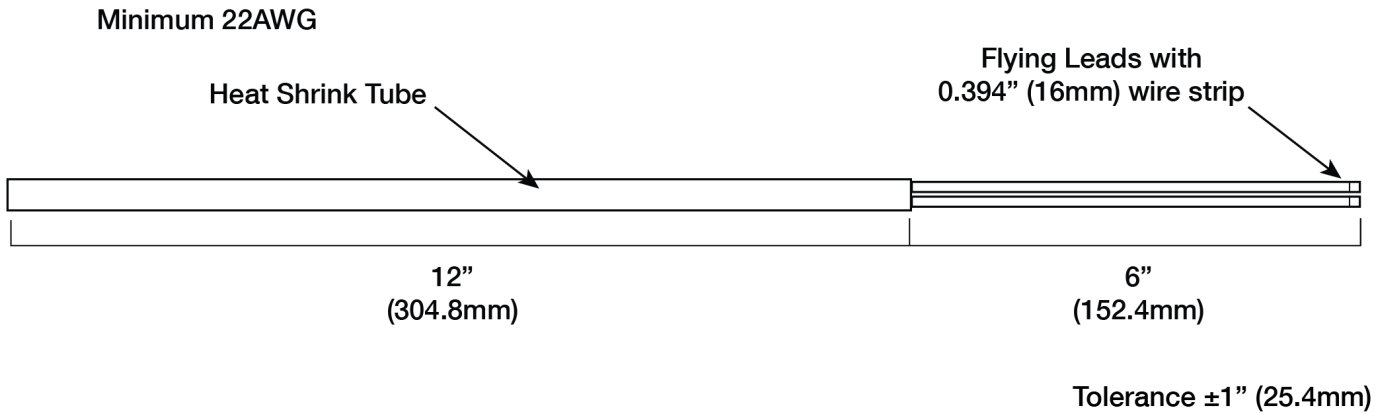PSC-BL-I-RD-DC0-BLE-SR, PSC-BL-RT-DC0-BLE-SR

LED DIM to Off with 12v Auxilliary Output Fixture Mount Sensor, Wireless Dimmer

INSTALLATION

For ceiling mount version see data sheet PSC-BL-I-RT-DC0-BLE-SR-CM.

Ref#: 20230009015

Leads

Minimum 22AWG

Heat Shrink Tube

Flying Leads with
0.394" (16mm) wire strip

12"
(304.8mm)

6"
(152.4mm)

Tolerance ±1" (25.4mm)

WARRANTY

Five year limited warranty.

Specifications subject to change without notice.