

# Casambi Mesh Fixture Mounted PIR Wireless Sensor

## Overview

- Low Profile PIR sensor
- Mounts in Fixture
- Casambi Wireless Mesh
- High-End Trim, Zoning, Continuous Dimming
- ioXt Alliance cybersecurity certification
- LED Motion indicator
- Active High output for relay drive
- Mounting height up to 40 ft (12.2 m)



Suitable for indoor or outdoor use



## Applications

The PSC-BL-I-FM-DC0-BLE-CB (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 PSC-BL-I-FM-DC0-BLE-CB 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 applications. It supports fixture mounting (HB) 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% at 30°C.

## Accessories

**Power Pack:** The PSC-BL-I-FM-DC0-BLE-SR operates on 12-24 VDC input and requires a separate power pack such as the mwConnect PSC-AC-PP-200/400/700C/800/900.

Alternatively, the sensor can operate with a driver that has an auxiliary output (12 V). For dim to off, an mwConnect PSC-AC-PP-200/700C/900 Power Pack or LED dimming driver capable of dimming to off is required.

## Sensor Operation

**Casambi Wireless Mesh Controls:** The sensor connects to a wireless mesh network via a mobile app, available as iOS or Android, to allow initial setup and subsequent parameters adjustments.

**User Interface:** Using the mobile app, features include: setup, control real time feedback, and scheduling without a gateway or internet access.

**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.

**Outdoor Rated:** The sensor is rated IP65 when installed in an IP65 device or enclosure.

See the mwConnect Casambi Commissioning User Manual for more information.

## Summary

**Sensor Type:**  
PIR occupancy sensor with ambient photo sensor (30-10,000 lux operating range)

**Input Voltage | Current Consumption:**  
12-24 VDC | 50 mA

**Load Control Output:**  
10-22 VADC Active High 30 mA

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

**Max Sensor Range High Bay:**  
70ft (21.3m) diameter  
**Max Sensor Range Low Bay:**  
60ft (18.2m) diameter

**Max Wireless Range<sup>1</sup>**  
100ft (30.4m)

**Operating Temperature:**  
-30° C to 70° C

**Storage Temperature:**  
-40° C to 80° C

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

**Color:** White

**Warranty:** 5 years

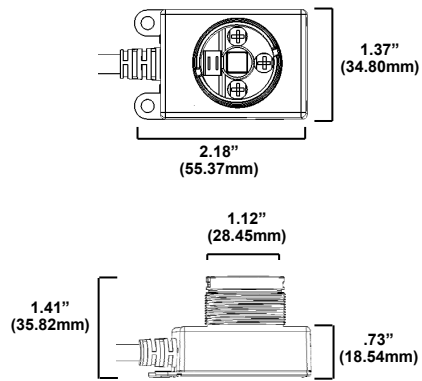
**Note:**  
1. Wireless Range is highly dependent on the integration of fixtures, surrounding environment and conditions. It is recommended to conduct testing for range accuracy.

Project

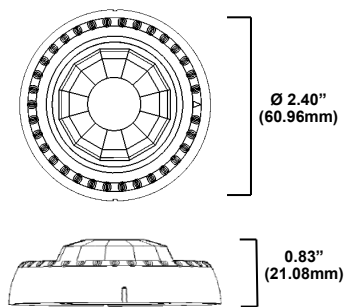
Location/Type

### Physical Dimensions

Standard Housing

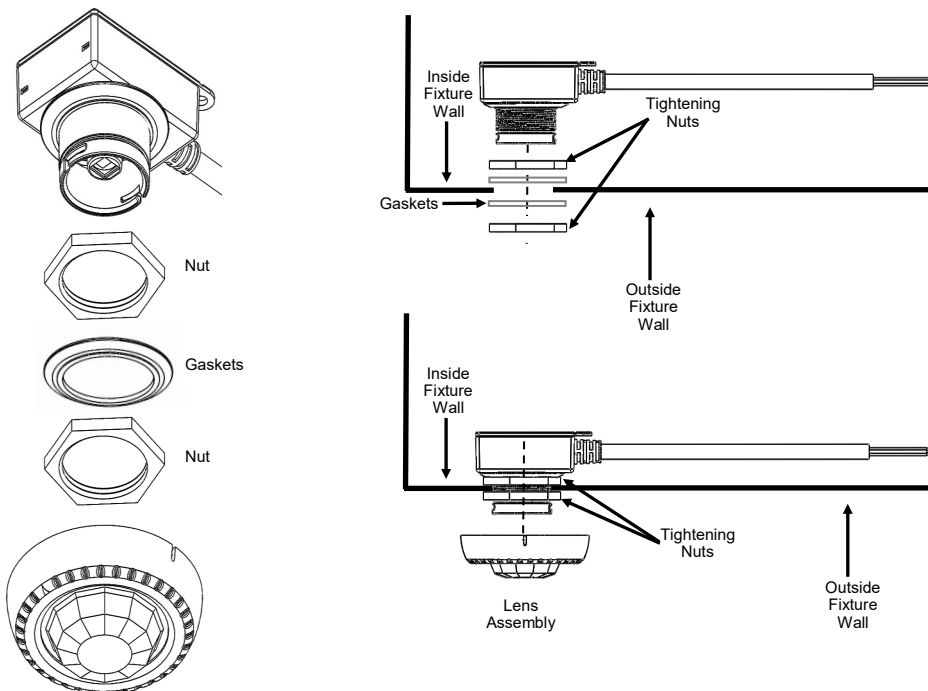


Lens Cover

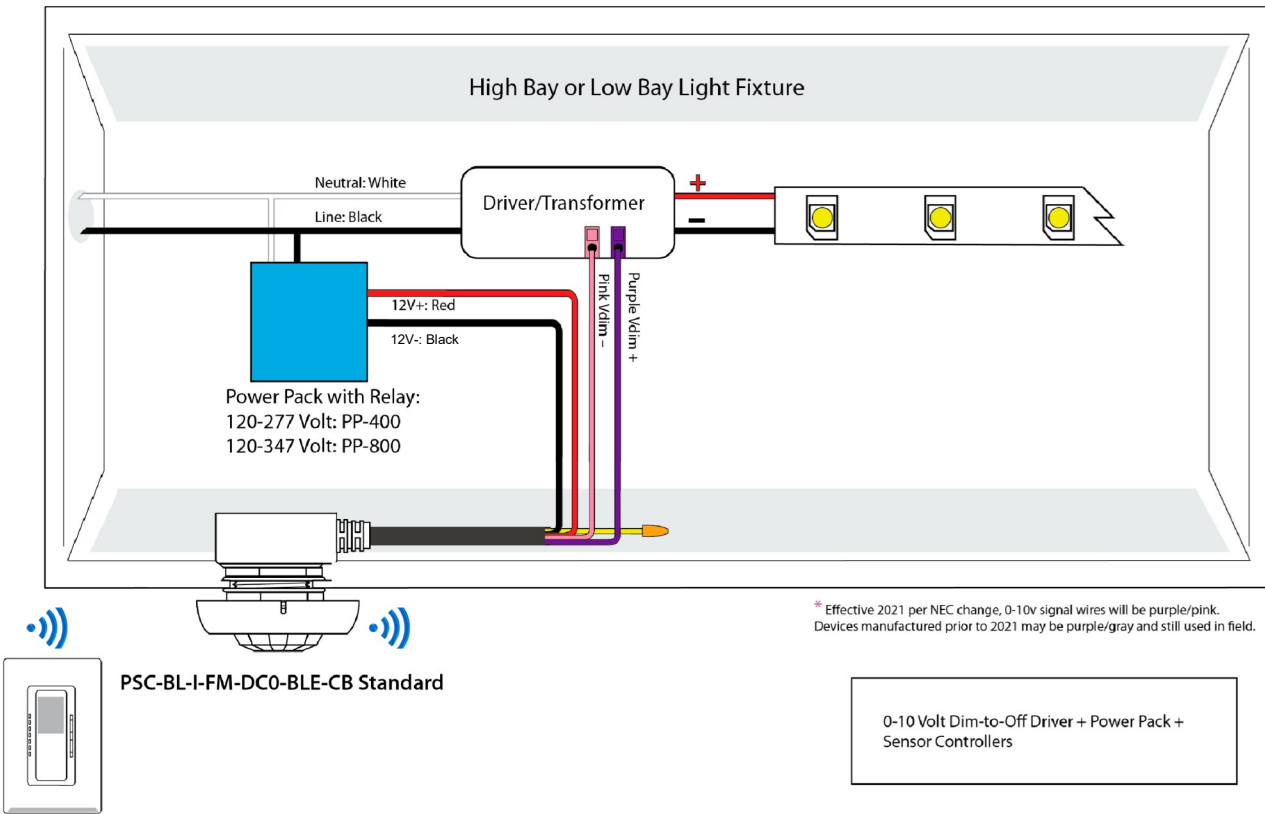


Drawings are Not to Scale

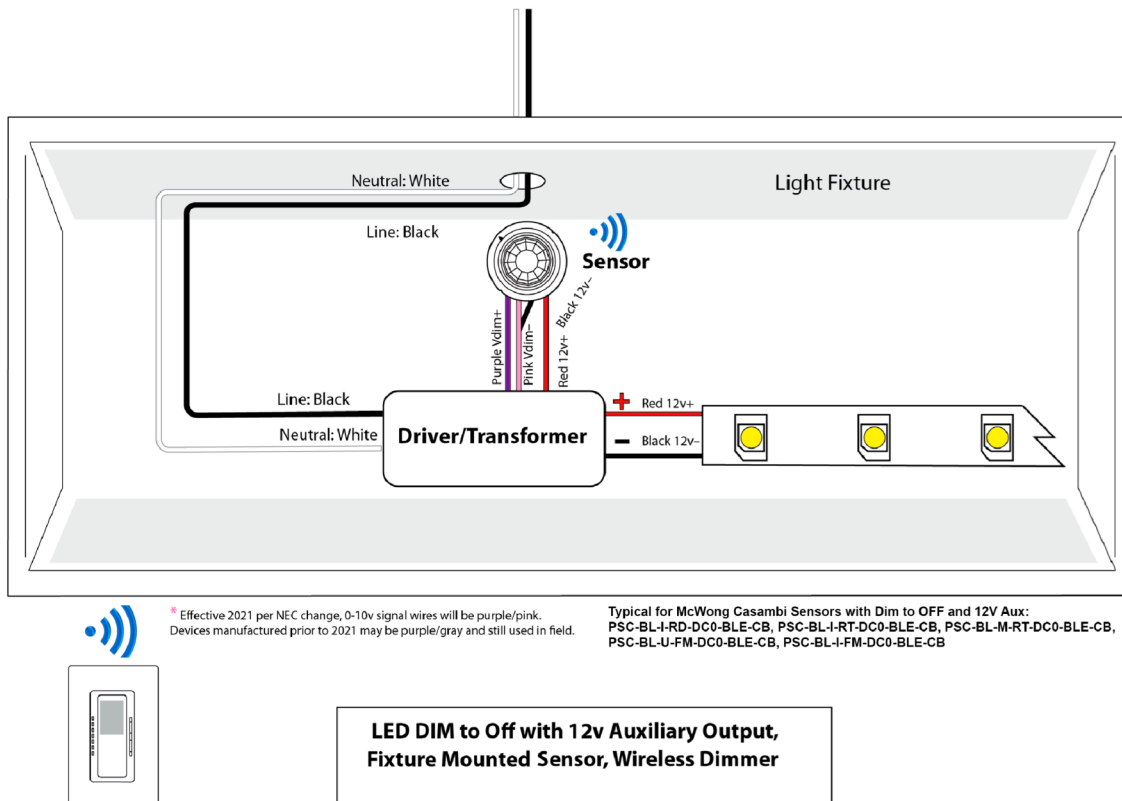
### Installation



Wiring Diagram and Fixture Mount



Dim to Off Driver with 12v Auxiliary Power



## Detection Area Lens Orientation



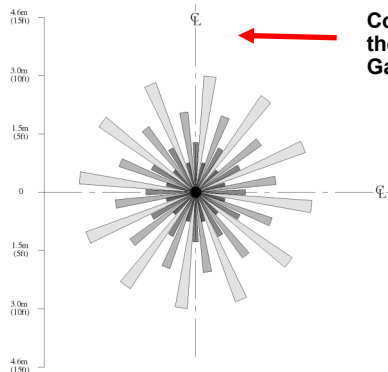
Corresponding to the CL on Detection Area Top View

### Fresnel Lens:

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

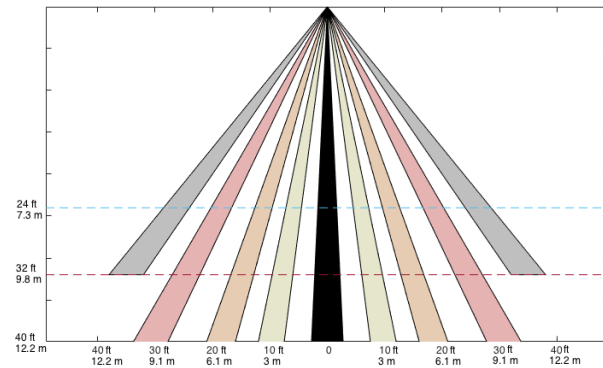
## Detection Area

**HBL: High Bay Lens-Top View at 8**

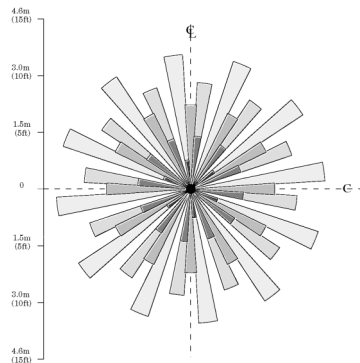


Corresponding to the Arrow on Gasketed Lens

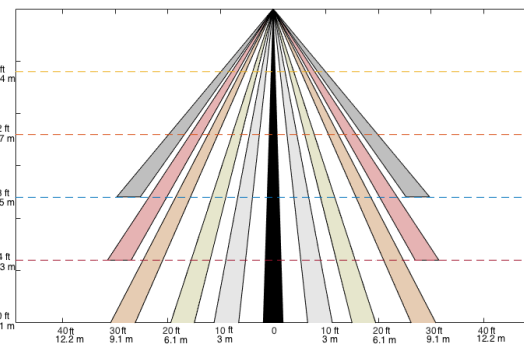
**HBL - Side View**



**LBL: Low Bay Lens-Top View at 8 ft**



**LBL - Side View**



## How to Order

Model No.	Description	Input Voltage	Output
<b>PSC-BL-I-FM-DC0-BLE-CB</b>	Passive Infrared (PIR) Occupancy Sensor, with Casambi Wireless Mesh	12-24VDC	0-10VDC Control High Control Low
PIR-BL01-F3-LBL	360° IP65 Low Bay Lens, maximum coverage 60ft diameter at 30ft height, White Color		
PIR-BL01-F3-LBL-BN	360° IP65 Low Bay Lens, maximum coverage 60ft diameter at 30ft height, Brown Color		
PIR-BL01-F3-LBL-BK	360° IP65 Low Bay Lens, maximum coverage 60ft diameter at 30ft height, Black Color		
PIR-BL01-F5-HBL	360° IP65 High Bay Lens, maximum coverage 70ft diameter at 40ft height or 80ft dia. at 32ft height, White Color		
PIR-BL01-F5-HBL-BN	360° IP65 High Bay Lens, maximum coverage 70ft diameter at 40ft height or 80ft dia. at 32ft height, Brown Color		
PIR-BL01-F5-HBL-BK	360° IP65 High Bay Lens, maximum coverage 70ft diameter at 40ft height or 80ft dia. at 32ft height, Black Color		

**For Line to Low Voltage Power Supply/Controller, please check mwConnect PacWave™ PSC-AC-PP-200/300/400/700C/800/900.**

Design and specifications are subject to change without notice.