# Wireless Dimming Compact Remote Mount Microwave Sensor

Overview

- Microwave sensor 24.11 GHz
- Mount in Fixture
- Occupancy or Vacancy with Switch In Same Zone
- Bluetooth® SIG mesh
- High-End Trim, Zoning, Continuous Dimming
- Active high output for relay drive
- 33ft (10m) diameter coverage pattern, at 10ft (3m) mounting height
- Conforms with DLC NLC Cybersecurity Standards

Suitable for indoor use

c UL us LISTED FC CE DLC Bluetooth®
E341446
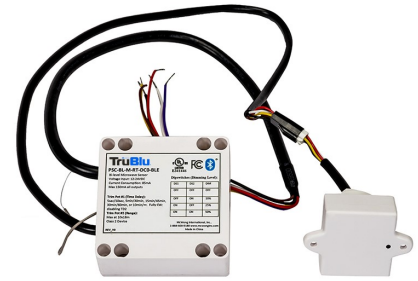
Applications

The Wireless Dimming Microwave Sensor with Remote Head (PSC-BL-M-RT-DC0-BLE-SR) actively emits microwaves at 24.11 GHz frequency and uses the Doppler shift of the return waves to detect motion.

The PSC-BL-M-RT-DC0-BLE-SR is a Class 2 Device designed to satisfy CA Title 24 requirements for dimming* of lighting fixtures.

These sensors are suitable for a variety of indoor applications. They can be installed in the fixture. The sensor is rated for use in temperatures ranging from -30° - 70°C

Accessories

Power Pack: The PSC-BL-M-RT-DC0-BLE-SR operates on 12-24 VDC input and requires a separate mwConnect PacWave™ power pack. See mwConnect PacWave™ Power Pack data sheets.

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

*For dim to off, mwConnect PacWave™ Power Pack or LED dimming driver capable of dimming to off is required.

Sensor Operation

TruBlu™ Mesh 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 TruBlu 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 TruBlu Gateway.

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

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

See the TruBlu™ Commissioning User Manual for more information.

Summary

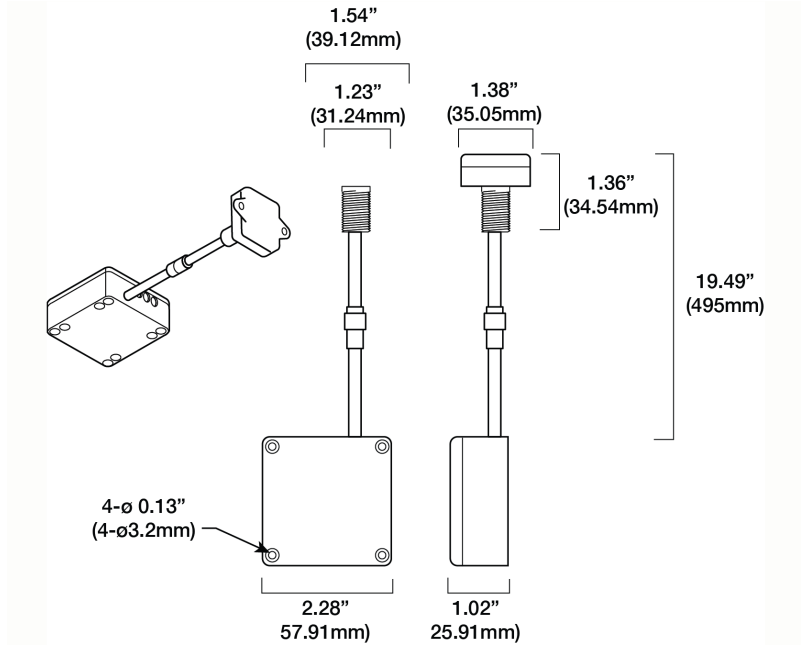|	
Sensor Type: Microwave Occupancy Sensor	
Input Voltage | Current Consumption: 12-24 VDC | 85 mA	
0-10V Output: 30 mA	
Output: Active high Vin-2.5 V 30 mA source	
Mounting Height: Fixture or ceiling mount 10ft (3m)	
Max Sensor Range Ceiling/Wall Mount: 16ft (5m) radius	
Max Bluetooth Range[1] 100ft (30.4m)	
Operating Temperature: -30° C to 70°C	
Storage Temperature: -40° C to 80°C	
Relative Humidity: 90-95% non-condensing	
Color: White	
Warranty: 5 years	

Note:
1. Bluetooth Range is highly dependent on the integration of fixtures, surrounding environment and conditions. It is recommended to conduct
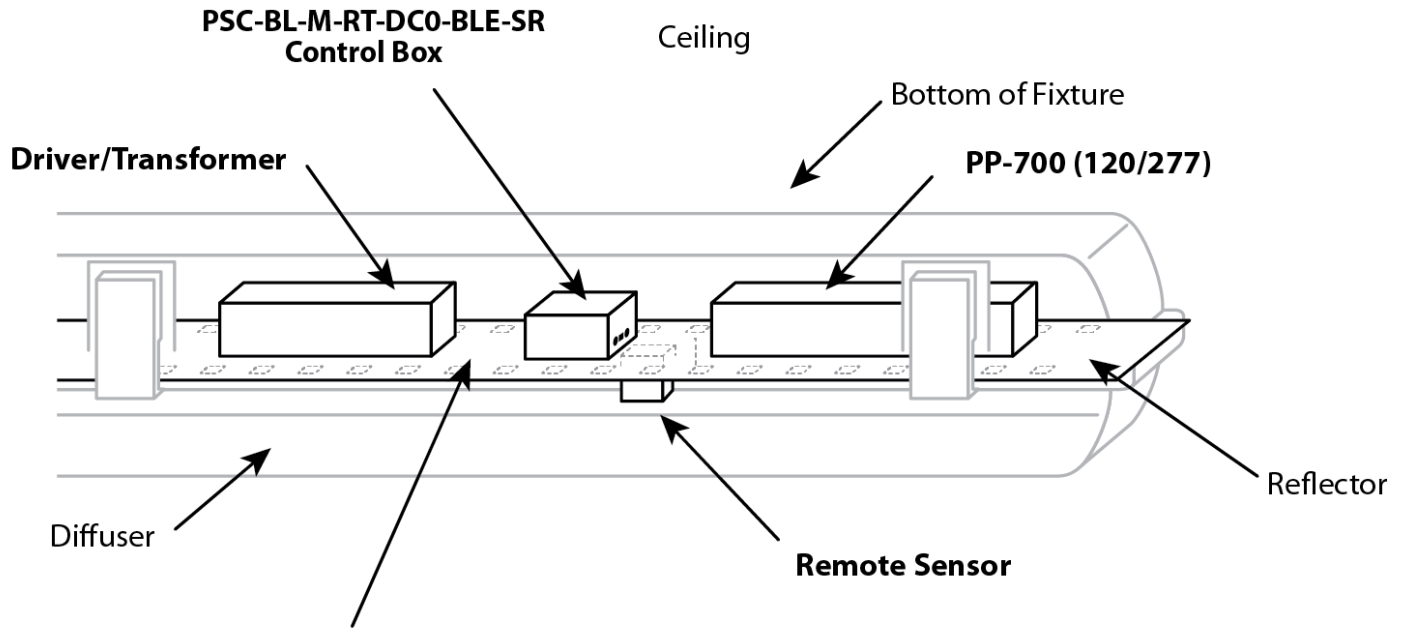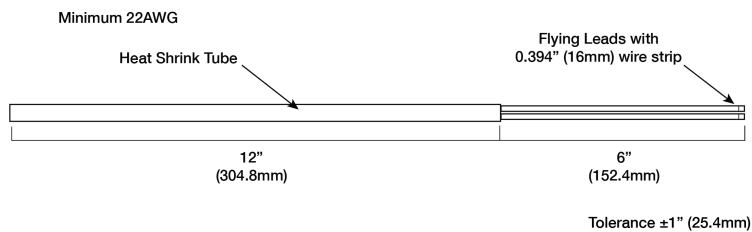
Project	
Location/Type	

Physical Dimensions

1.54"
(39.12mm)

1.23"
(31.24mm)

1.38"
(35.05mm)

1.36"
(34.54mm)

19.49"
(495mm)

4-ø 0.13"
(4-ø3.2mm)

2.28"
57.91mm)

1.02"
25.91mm)

Drawings are Not to Scale

Mounting

PSC-BL-M-RT-DC0-BLE-SR Control Box

Ceiling

Bottom of Fixture

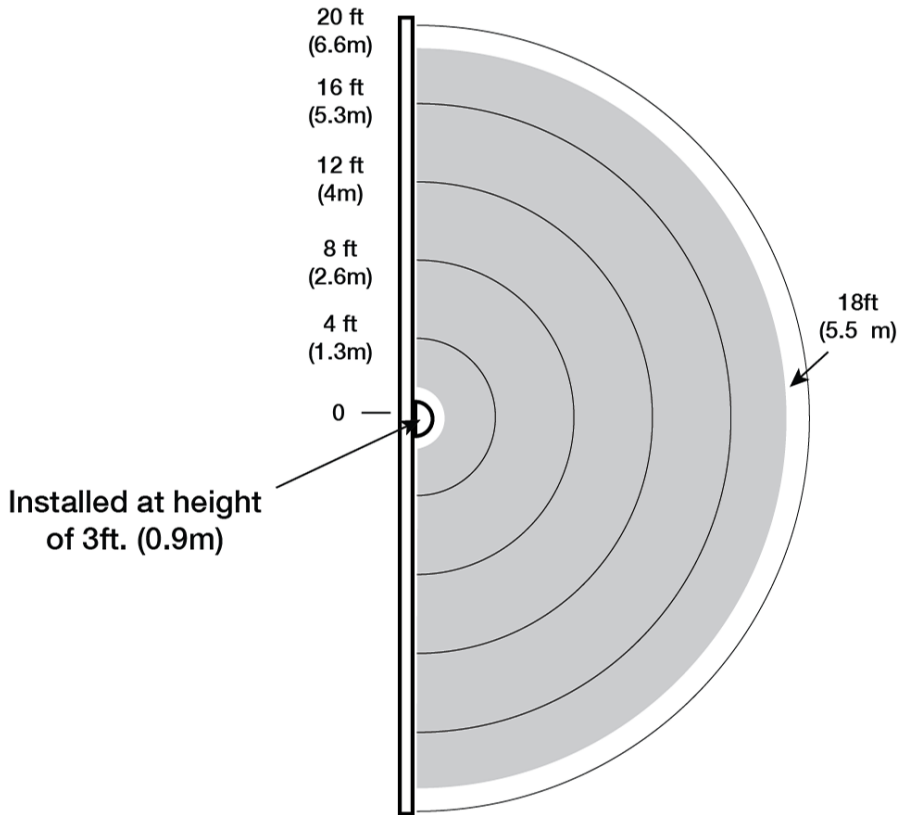**Driver/Transformer**

PP-700 (120/277)

Reflector

Diffuser

Remote Sensor

Two rows LED with Microwave Sensor in between

Leads:

Minimum 22AWG

Heat Shrink Tube

Flying Leads with
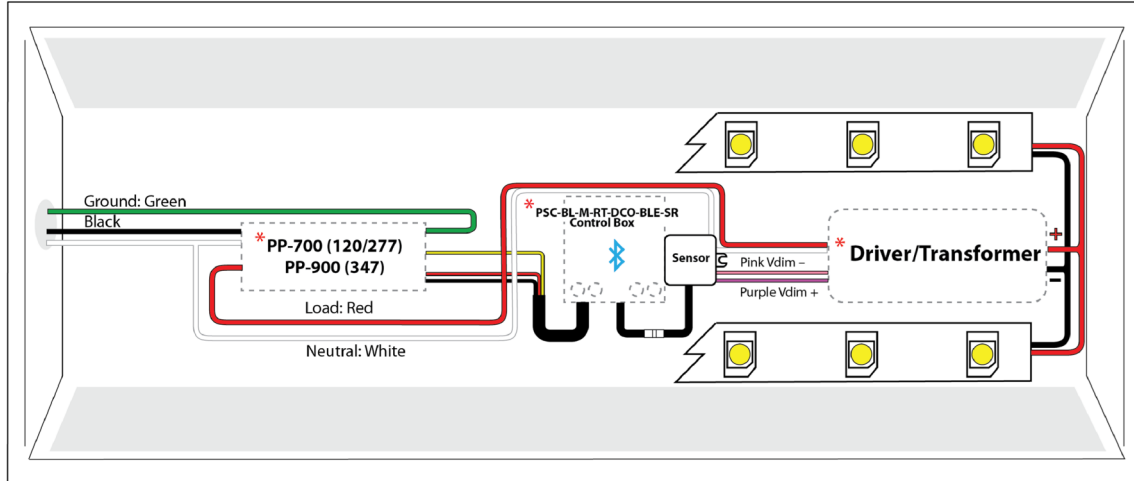0.394" (16mm) wire strip

12"
(304.8mm)

6"
(152.4mm)

Tolerance ±1" (25.4mm)

Detection Area for 3ft (0.9m) Side Mounting Height

20 ft (6.6m)
16 ft (5.3m)
12 ft (4m)
8 ft (2.6m)
4 ft (1.3m)
0
18ft (5.5 m)

Installed at height of 3ft. (0.9m)

Detection Area for 10ft (3m) Mounting Height)

16.4 ft (5m)
13.1 ft (4m)
9.8 ft (3m)
6.6 ft (2.0m)
3 ft (1.0m)
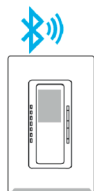18ft (5.5 m)
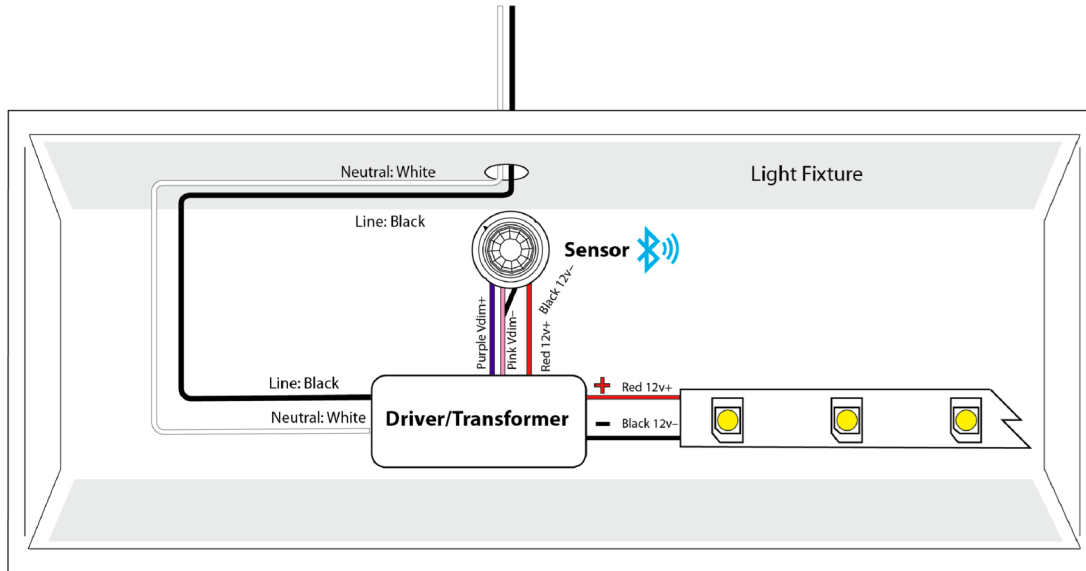
Installed at height of 10ft. (3.0m)
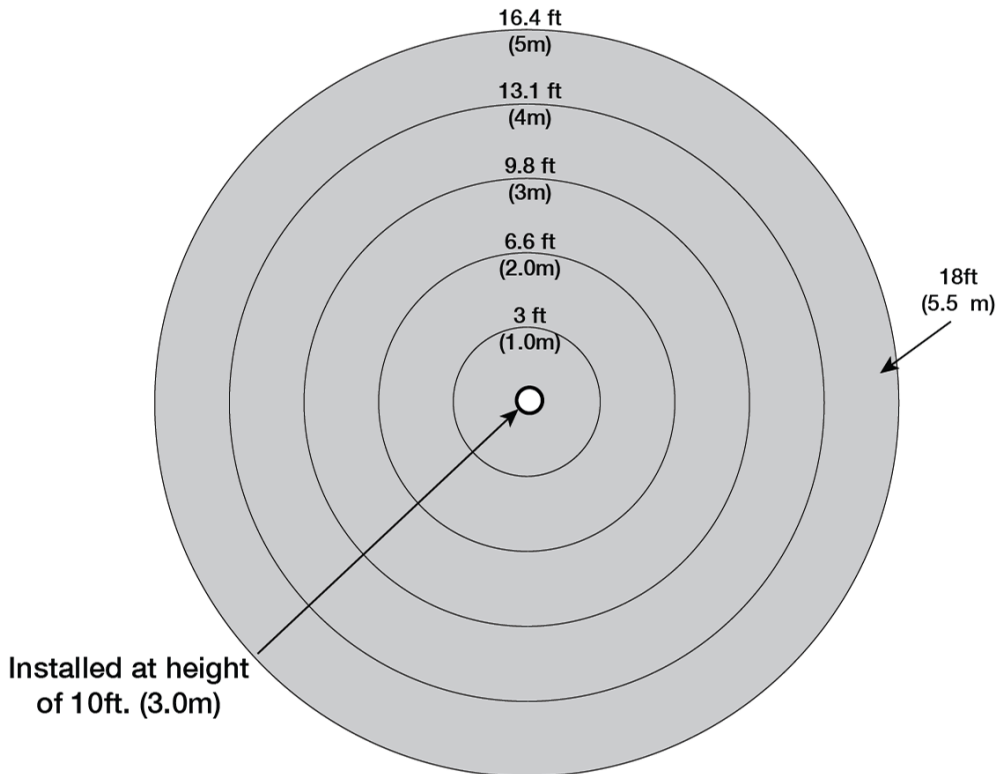
Wiring Diagram
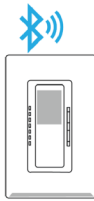
PSC-BL-M-RT-DCO-BLE-SR
Fixture Mount Microwave

* Effective 2022 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.

* Devices with dotted lines are typically installed above.

0-10 Volt Dimming Driver, PP-700 or PP-900,
PIR /Daylight Sensor

* 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.

Typical for McWong Sensors with DIM to OFF and 12v Aux:
PSC-BL-I-RD-DC0-BLE-SR, PSC-BL-I-RT-DC-0-SR, PSC-BL-M-RT-DC0-BLE-SR,
PSC-BL-U-FM-DC0-BLE-SR, PSC-BL-I-FM-DC0-BLE-SR

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

How to Order

Model No.	Description	Input Voltage	Output
PSC-BL-M-RT-DC0-BLE-SR	Wireless Dimming Microwave Remote Mount Occupancy Sensor, TruBlu Bluetooth Mesh, technology partner Silvair	12-24VDC	0-10VDC Control High

For Line to Low Voltage Power Supply/Controller, please see mwConnect PacWave™ Power Pack data sheets
Design and specifications are subject to change without notice.