

# Wireless Dimming Ultrasonic Sensor

## Overview

- Ultrasonic sensor 40kHz ± 1kHz
- 360° coverage pattern
- Mount in Fixture, Ceiling, or Ceiling Tile
- Bluetooth® SIG mesh
- High-End Trim, Zoning, Continuous Multi-Level Dimming
- LED Motion indicator
- Active High output for relay drive
- Mounting height of 10ft(3m)
- Conforms with DLC NLC5 Cybersecurity Standards



Suitable for indoor use only



## Applications

The PSC-BL-U-FM-DC0-BLE-SR is an Ultrasonic Occupancy Sensor. The sensor actively emits high frequency sound waves (40kHz) and uses the Doppler Effect to detect motion.

The PSC-BL-U-FM-DC0-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 and ceiling mounting heights up to 8-12ft (2.4—3.7m). 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.

## Accessories

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

Alternatively, the sensor can also operate with a driver that has a 12V auxiliary output

\*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.

**Multi-Level Dimming:** 0-10V Multi-Level 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 TruBlu Commissioning User Manual for more information.

## Summary

Sensor Type:  
Ultrasonic Occupancy/Vacancy Sensor

Input Voltage | Current Consumption:  
12-24 VDC | 70 mA

0-10V Output: 30 mA

Output: Active High Vin-2.5 V 30 mA source

Mounting Height:  
Fixture or ceiling mounting height at 8-12ft (2.4-3.7m)

Max Sensor Range:  
32ft x 32ft (10m x 10m)

Max Bluetooth 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

Color: White

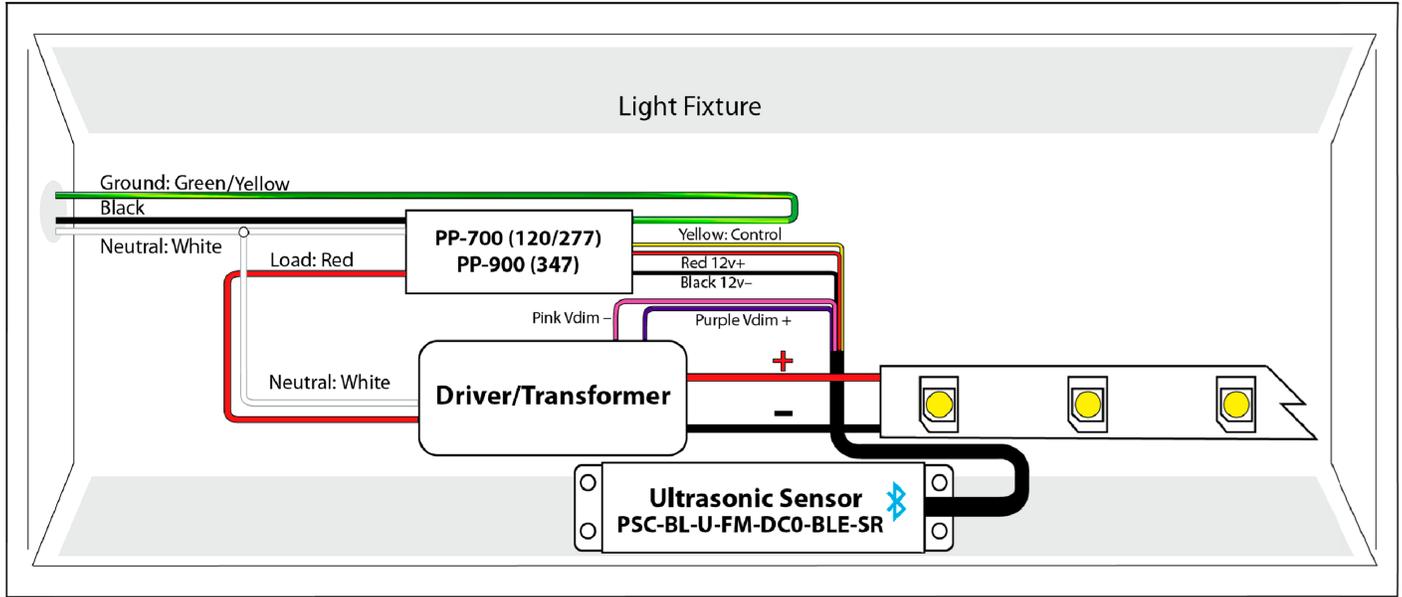
Warranty: 5 years

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

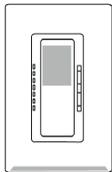
Project

Location/Type

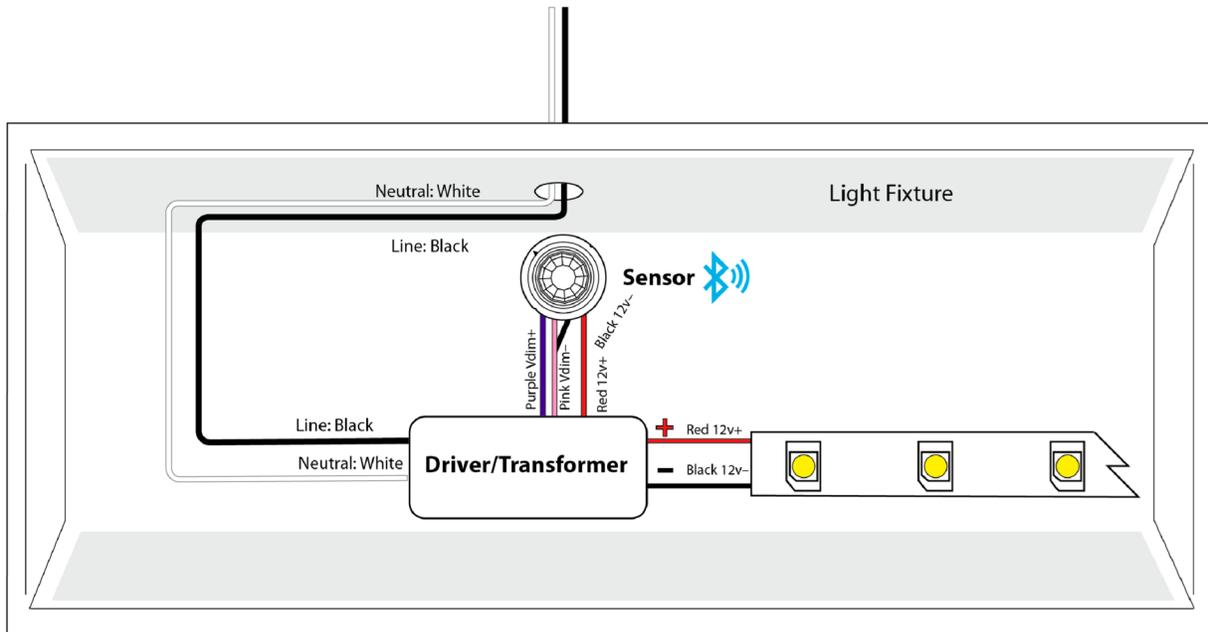
Wiring Diagram



\* 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.

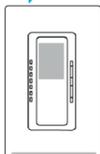


0-10 Volt Dimming Driver, PP-700 or PP-900,  
Ultrasonic Sensor



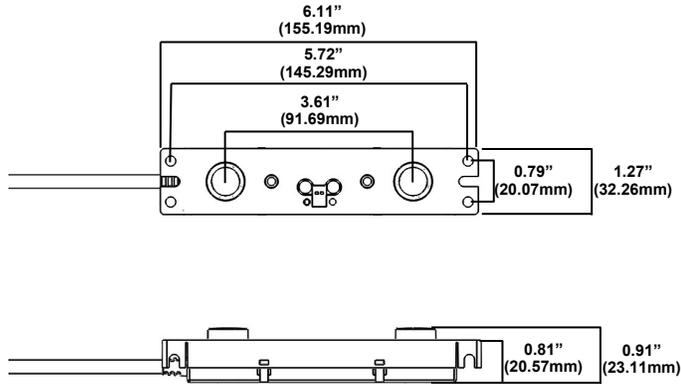
\* Effective 2021 per NEC change, 0-10v signal wires will be purple/pink. Devices manufactured prior to 2021 may be purple/gray and still used in field.

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



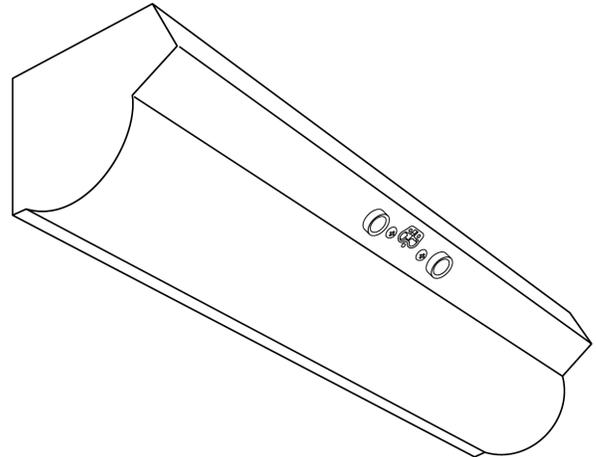
**LED DIM to Off with 12v Auxiliary Output,  
Fixture Mounted Sensor, Wireless Dimmer**

**Physical Dimensions**



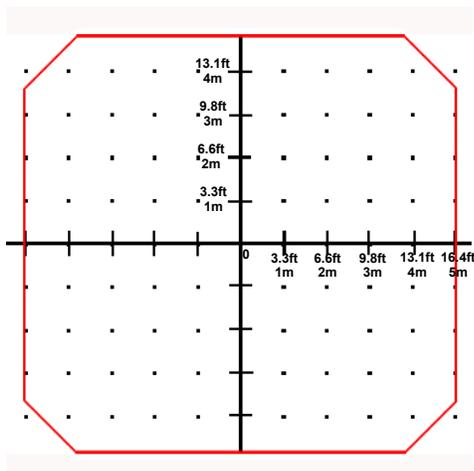
Drawings are Not to Scale

**Installation**



**Detection Area**

Coverage area 7.9ft (2.4m) Ceiling Mounted



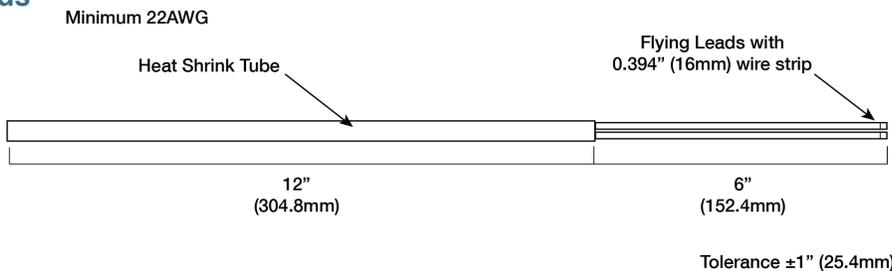
**Programming**

**Test Mode:** Test Mode sets the time delay to five seconds and runs for 5 minutes. The LED flashes 2 times to indicate has Test Mode started. After 5 minutes (or pushing the Test Mode button again), the LED flashes 3 times, and the sensor returns to the selected time delay.

During test mode, full output when triggered, and dimming level reflects the dip switch setting.



**Leads**



**How to Order**

Model No.	Description	Input Voltage	Dimming Output	Output
PSC-BL-U-FM-DCO-BLE-SR	Ultrasonic Occupancy Sensor, TruBlu™ Silvair technology partner	12-24VDC	0-10VDC, 30mA	Motion 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.