TruBlu Mesh Ceiling Mounted Dual Technology Wireless Sensor

Overview

- Dual Tech Sensor with Passive Infrared (PIR) & Ultrasonic Detection
- Occupancy or Vacancy Operation Modes
- Compatible with Bluetooth® SIG Mesh Systems
- Surface Mount to Electrical Enclosure
- Features High and Low-End Trim Adjustment, Zoning & Continuous Dimming
- Suited for Mounting up to 12ft (3.7m)
- 12 to 24VDC Powered
- Conforms with DLC NLC5 Cybersecurity Standards

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Applications

The mwConnect Dual Tech Occupancy Sensor uses both PIR and ultrasonic detection methods to provide improved performance in areas where a PIR sensor alone will not suffice. This device communicates wirelessly via Bluetooth Mesh technology allowing for wireless control of luminaires.

The sensor is suitable for a variety of indoor applications and mounts to a standard electrical junction box or enclosure.

Operation

TruBlu™ Mesh Controls:
Qualified by Bluetooth SIG for its Bluetooth Mesh 1.0.1 specification, the sensor connects to a wireless mesh network 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 TruBlu Gateway (ordered separately).

See TruBlu Commissioning User Manual for more information.

Accessories

Power Pack: This sensor operates on 12-24VDC input power and requires a separate mwConnect power pack. See the mwConnect line of Power Packs and Power Supplies.

Summary

Product Type:
Dual Tech (PIR & Ultrasonic) Occupancy/ Vacancy Sensor

Input Voltage: 12 to 24 VDC

Current Consumption:
50 mA (25 mA non-BLE) @ 12VDC
30 mA (20 mA non-BLE) @ 24VDC

Mounting:
Ceiling mount up to 12 ft (3.7m)

PIR Sensor Range:
1600 ft² (150 m²)

Ultrasonic Sensor Range:
900 ft² (85 m²)

Max Bluetooth Range[1]:
100 ft (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

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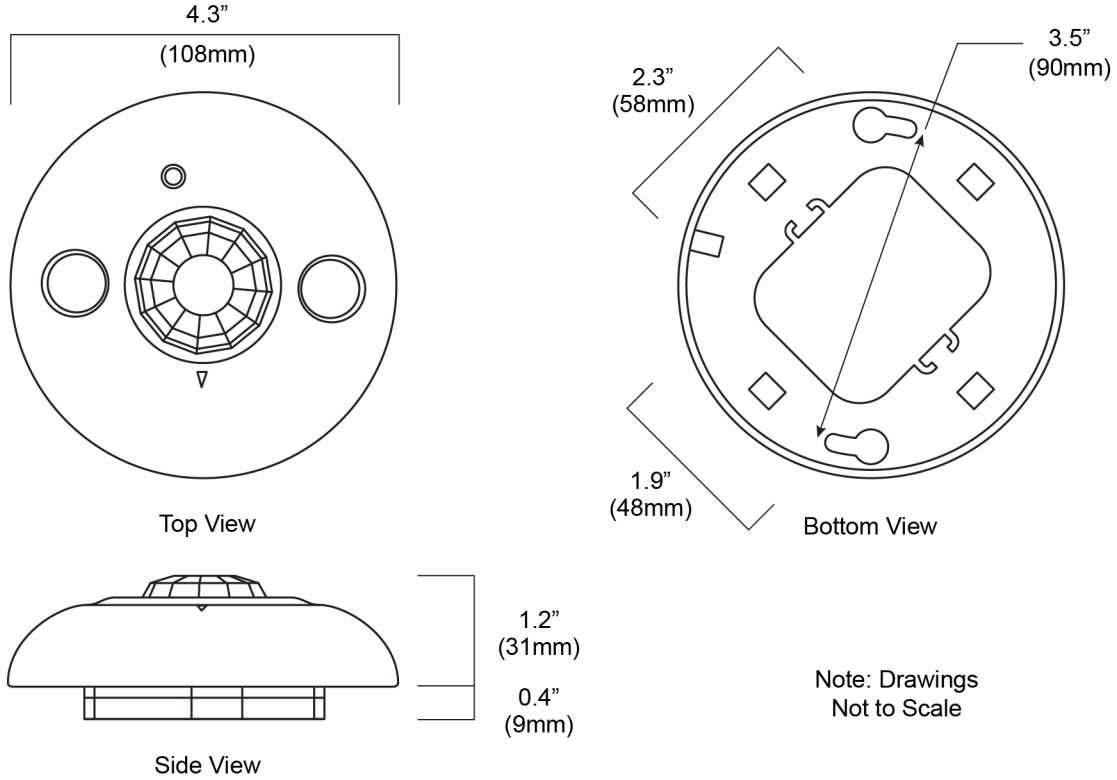
Project	
Location/Type	

Physical Dimensions

4.3"
(108mm)

Top View

2.3"
(58mm)

3.5"
(90mm)

1.9"
(48mm)

Bottom View

1.2"
(31mm)

0.4"
(9mm)

Side View

Note: Drawings
Not to Scale

Coverage Area

PIR Pattern

9.1m
(30ft)

6.1m
(20ft)

3.0m
(10ft)

3.0m
(10ft)

6.1m
(20ft)

9.1m
(30ft)

Ultrasonic Pattern

8 ft
2.4 m

10 ft
3.0 m

12 ft
3.7 m

| 40 ft 12.2 m | 30 ft 9.1 m | 20 ft 6.1 m | 10 ft 3.0 m | 0 | 10 ft 3.0 m | 20 ft 6.1 m | 30 ft 9.1 m | 40 ft 12.2 m |
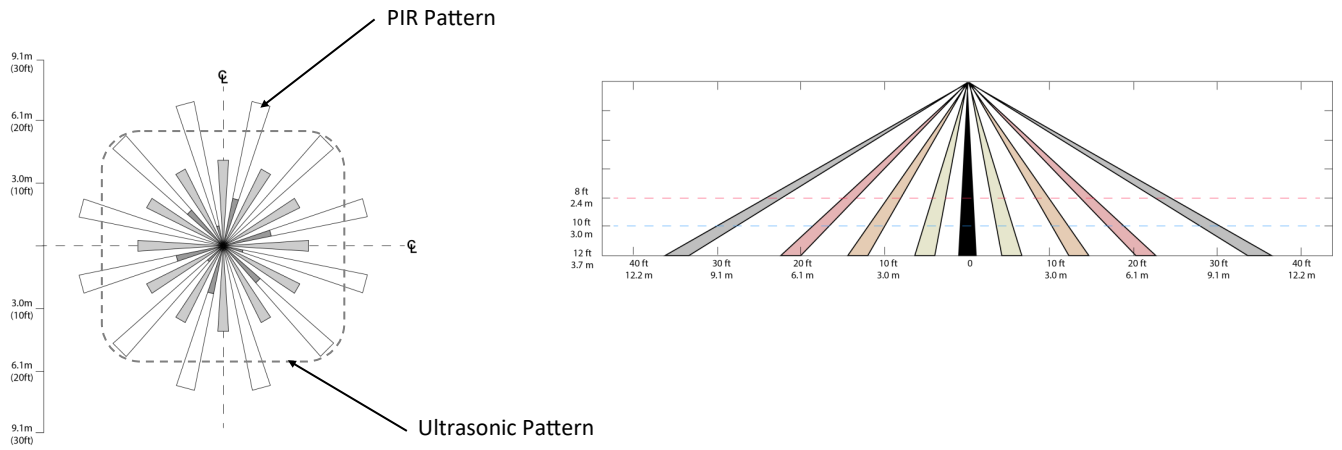
Example Application: Wireless Sensor with Power Supply

Light Fixture/Luminaire

Neutral Input: White

Line input: Black

Neutral: White

Line: Black

Wireless Mesh Controller

Driver/ Transformer

12-24VDC Power Supply

12-24VDC- Power: Black

12-24VDC+ Power: Red

12-24VDC Sensor with Load Control Output

PSC-DM-WS-100-BLE or Similar Wireless Wall Switch
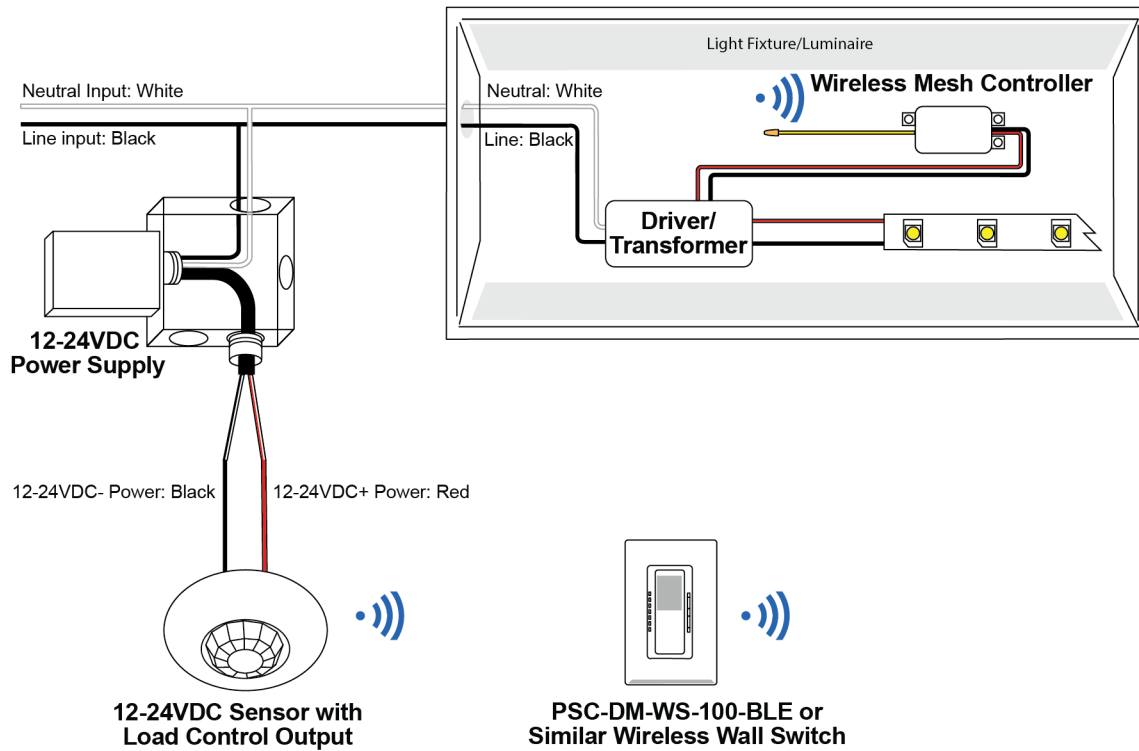
Powering Multiple Sensors

Power Supply	Power Rating	Number of Wireless Sensors (-BLE Model)	Number of Sensors
PSC-AC-PP-100	24VDC, 150mA	5 Sensors Max	7 Sensors Max
PSC-WCM-450-BLE-XX	12VDC, 300mA	6 Sensors Max	12 Sensors Max

Example Application: Sensor Installed with Wireless Area Controller and 0-10V Driver

Neutral Input: White
Line input: Black
Load: Red
Light Fixture/Luminaire
Driver/Transformer
Wireless Controller with Aux Power
0-10VDC- Dim: Pink (or Gray)
0-10VDC+ Dim: Purple (Violet)
12-24VDC- Power: Black
12-24VDC+ Power: Red
Load Control Output: Yellow
12-24VDC Sensor With Load Control Output
PSC-DM-WS-100-BLE or Similar Wireless Wall Switch
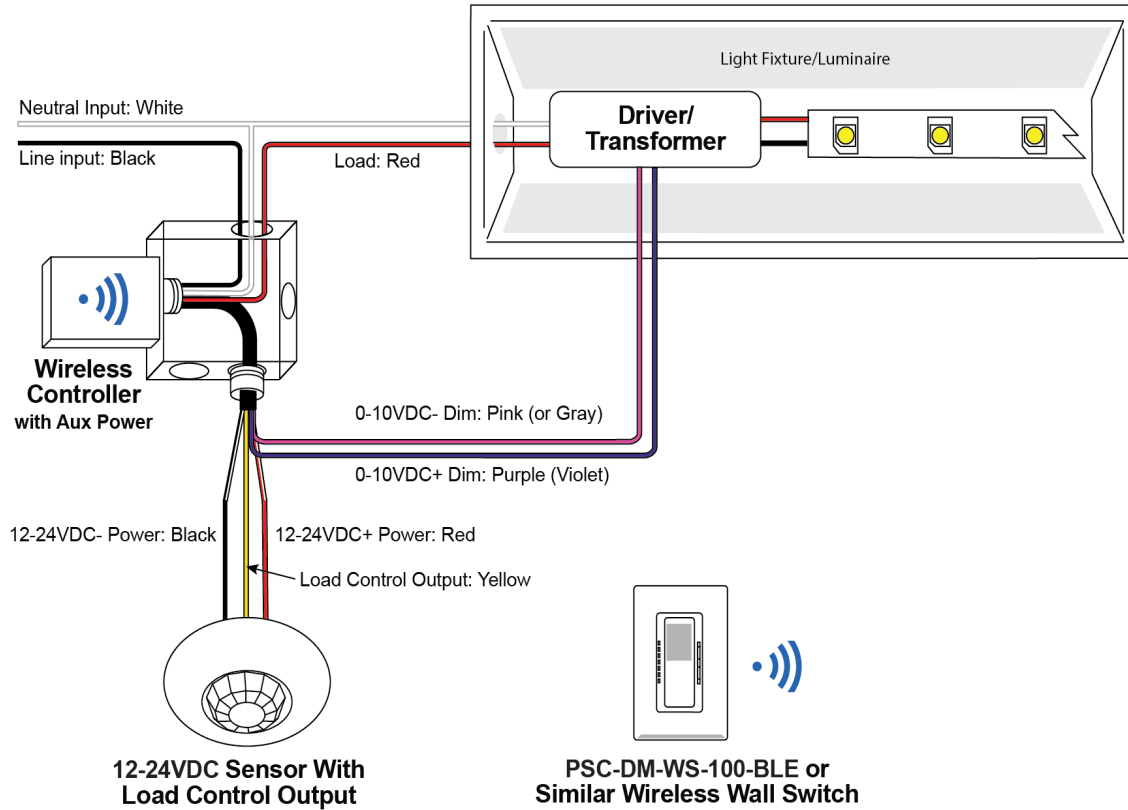
Wiring

Wire	Designation	Notes
Red	12-24VDC+ Power Input	Sensor Power Input
Black	Power Input Common	Sensor Power Input
Yellow	10-22VDC Control Output	Output for Controlling Power Pack or Similar Devices (Active High)

How to Order

Model No.	Description	Input Voltage
PSC-BL-D-CM-DC-BLE-SR	Wireless Low Voltage Ceiling Mount Dual Tech Occupancy Sensor, TruBlu Wireless Mesh	12-24VDC
PSC-BL-D-CM-DC	Low Voltage Ceiling Mount Dual Tech Occupancy Sensor, non-Wireless	12-24VDC

Design and specifications are subject to change without notice.