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Specification Library

Project: \_\_\_\_\_

Reference Type: \_\_\_\_\_

Item Code: \_\_\_\_\_

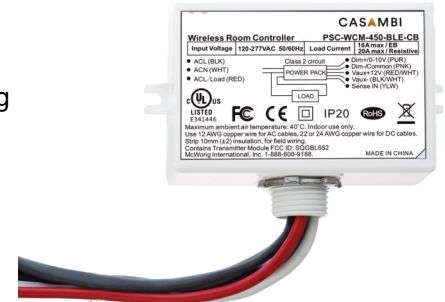
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# Casambi Mesh Single Channel Controller with Integral Relay

## Overview

- Single Channel Controller with 0-10VDC Dimming Output
- Mounts to 1/2" Knockout (Light Fixture or Enclosure)
- Compatible with Casambi Wireless Mesh Systems
- Features High End Trim Adjustment, Zoning & Continuous Dimming
- Sensor/Control Input (Active High) for Relay/Load Control
- Switching Relay with Zero-Crossing
- Line Voltage Input (120-277 VAC)
- 12VDC Auxiliary Output
- Approved For Lighting And Plug Loads
- Approved for Use in Plenum Applications
- ioXt Alliance Cybersecurity Certification



## Applications

The Wireless Room Controller (PSC-WCM-450-BLE-CB) provides wireless control of room lighting with an integral 20A relay and single channel of 0-10VDC dimming output. This unit is compatible with Casambi Wireless Mesh technology.

With an input voltage of 120-277VAC, this unit is suited for mounting to an electrical enclosure (via 1/2" knockout) or to a fixture/luminaire (via mounting tabs).

The PSC-WCM-450-BLE-CB is rated for use in Plenums and offers additional features, including 12VDC auxiliary power supply for sensors or other products and load control input that operates the integral relay.

## Operation

**Casambi Wireless Mesh Controls:** The controller 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.

**Single Channel Dimming:** Allows for zone control of one 0-10VDC dimming channel.

**Power Multiple Sensors:** A 12VDC auxiliary device power output is available to power multiple devices including occupancy sensors.

**Integral Relay:** Features a 20A relay to control multiple fixtures in a lighting zone.

See the mwConnect Casambi Commissioning User Manual for more information.

## Summary

Product Type:  
Single Channel Wireless Room Controller

Input Voltage | Current Consumption:  
120-277VAC 50/60Hz | 100 mA

Auxiliary Power Output: 12VDC 200mA  
(Input Voltage up to 200VAC)  
12VDC 300mA (Input Voltage over 200VAC)

Sensor Control Input: Active High 10-14VDC, 30mA

0-10VDC Output: 100mA Current Sinking

Max Load Rating (20A Relay):  
16A for Elec.Ballast, LED, CFL  
20A for Resistive

Mounting: 1/2" Threaded Nipple to Fixture or Electrical Enclosure

Max Bluetooth Range<sup>1</sup>: 100ft (30.4m)

Operating Temperature:  
-40°F to 104°F (-40°C to 40°C)

Storage Temperature:  
-40°F to 185°F (-40°C to 85°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 Bluetooth range accuracy.



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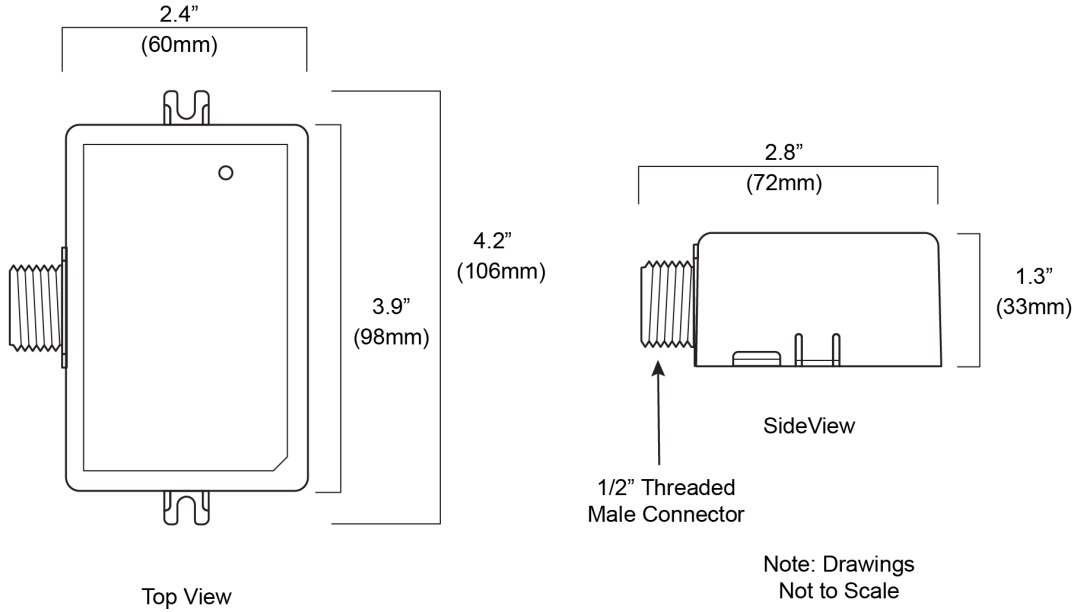
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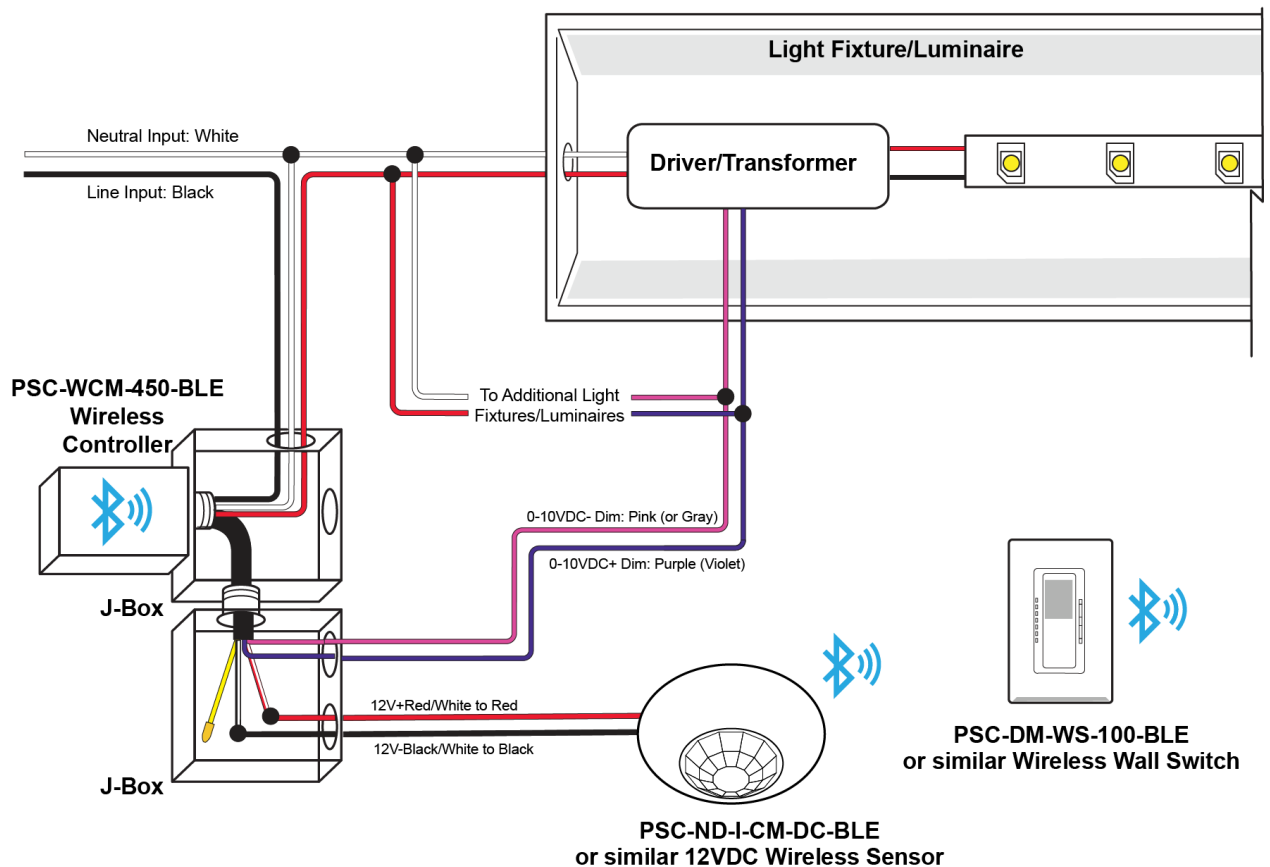
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## Physical Dimensions



## Wiring Application Example: Controller Installed in Electrical Enclosure with Wireless Sensor and Wireless Switch





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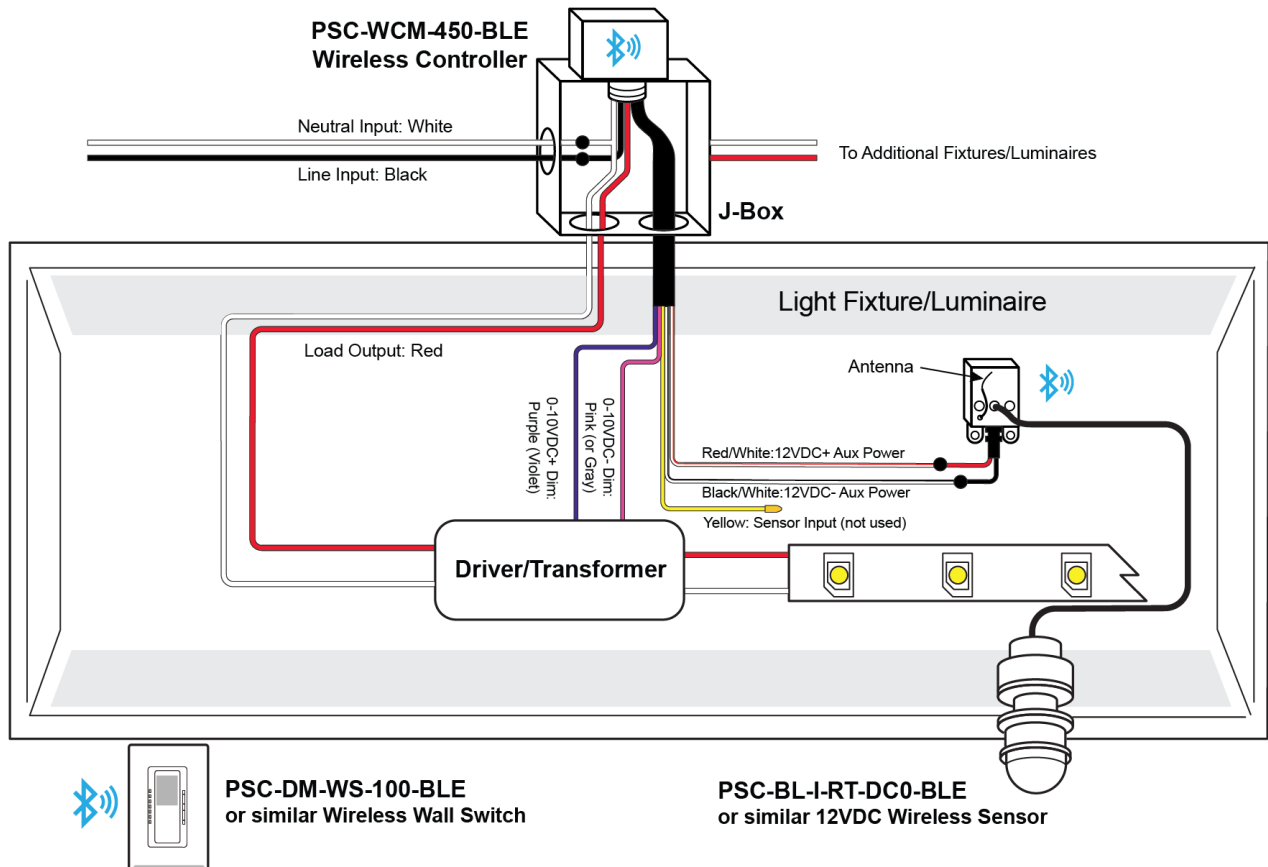
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## Wiring Application Example: Controller Installed In Electrical Enclosure with Wired Sensor in Fixture and Wireless Switch



### Wiring Table

Wire	Designation	Notes	Size
Black	Line Input (120-277VAC)	Connect to Line Power (120 to 277 VAC, 50 or 60 Hz)	#12 AWG, 180+/- 20mm, Strip 10, Tin Plated
White	Neutral Input (120-277VAC)	Connect to Neutral Power and Luminaire Power Input	
Red	Load Output	Connect to Luminaire Power Input (Voltage matches Line Input)	
Red/White	Aux Power Output (12VDC+)	Connect to Auxiliary Device Power Input (12VDC+)	#22 AWG, 180+/-20mm, Strip 10mm Tin Plated
Black/White	Aux Power Output (12VDC-)	Connect to Auxiliary Device Power Input (12VDC-)	
Purple (Violet)	0-10VDC+ Dim Output (Current Sinking)	Connect to Current Sourcing Luminaire Dim Input (0-10VDC+)	
Pink (or Gray)	0-10VDC- Dim Output (Current Sinking)	Connect to Current Sourcing Luminaire Dim Input (0-10VDC-)	
Yellow	Load Control Input (12VDC)	Connect to Sensor Output or Similar Device (Active High)	

### How to Order

Model No.	Description	Input Voltage	Relay	Dimming Output	Aux. Output	Sensor Input
PSC-WCM-450-BLE-CB	Casambi Mesh Line Voltage Single Channel Wireless Room Controller with Integral Relay	120-277VAC	20A	0-10V, 100mA	12V, 300mA	YES

Design and specifications are subject to change without notice.