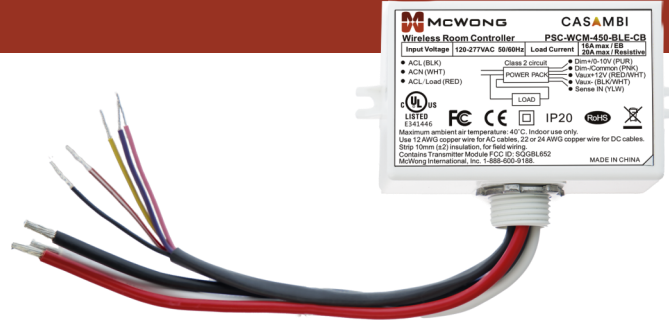# Wireless Room Controller 20A

## Overview

- 100-277VAC Input Voltage
- 0-10V Output to LED Driver
- Relay with Zero-Crossing
- Active High Output for Relay Drive
- 12V aux Power (PSC-WCM-450-BLE-CB)
- Sensor Input (PSC-WCM-450-BLE-CB)
- Casambi Bluetooth Mesh

*Suitable for Indoor Use Only*

c(UL)us LISTED E341446  FC CE

## Applications

The Wireless Room Controller (PSC-WCM-4x0-BLE-CB) is made to fit into a Casambi Bluetooth mesh system for wireless control of room lighting.

With input voltage of 100-277VAC, this unit is controlled wirelessly via a Casambi Bluetooth Mesh module, allowing for wireless dimming of LED lighting and seamless integration of Casambi Bluetooth Mesh software solutions. The unit comes with a threaded nipple for junction box mounting.

The PSC-WCM-450-BLE-CB offers additional features, including 12V 300mA auxiliary power supply for sensors or other products and sensor input.

## Operation

**Casambi Bluetooth Mesh Controls: T**he controller connects to a Casambi Bluetooth 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.

**1 Channel Dimming:** allows for one 0-10 dimming channel for zone control.

**Relay:** 20A relay to control multiple fixtures in the zone.

**Active High:** Active High relay for triggering other devices.

Low voltage wires are in heat shrink tubing as a barrier from line voltage wiring (UL approved).

See the McWong Casambi Commissioning User Manual for more information.

## Summary

Product Type:
Wireless Room Controller

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

Auxiliary Power Supply: 12v 300mA for sensors

0-10V Output: 100 mA sink

Load (20A Relay) :
@120/277VAC   Max. 16A, E. Ballast, LED, CFL
@120/277VAC   Max. 20A, Resistive

Mounting: Junction box

Max Range[1]:
100ft (30.4m)

Operating Temperature:
-40° C to 70°C

Storage Temperature:
-40° C to 85°C

Relative Humidity:
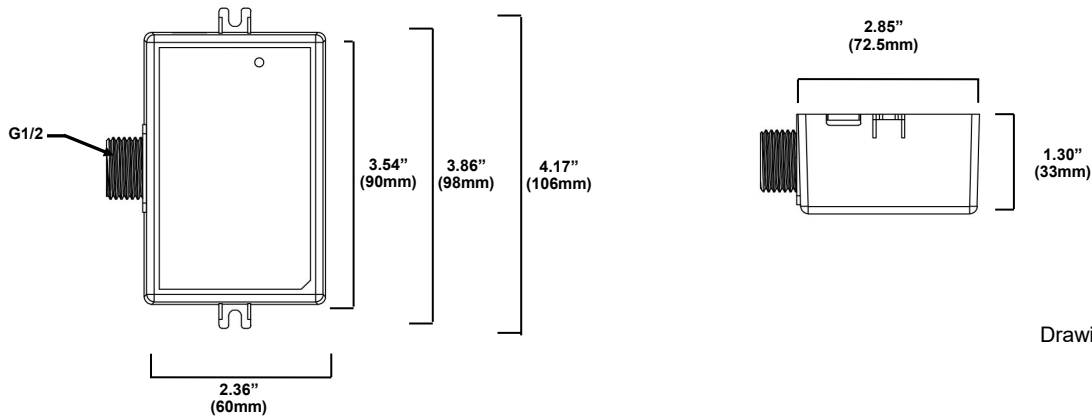90-95% non-condensing

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 range accuracy.
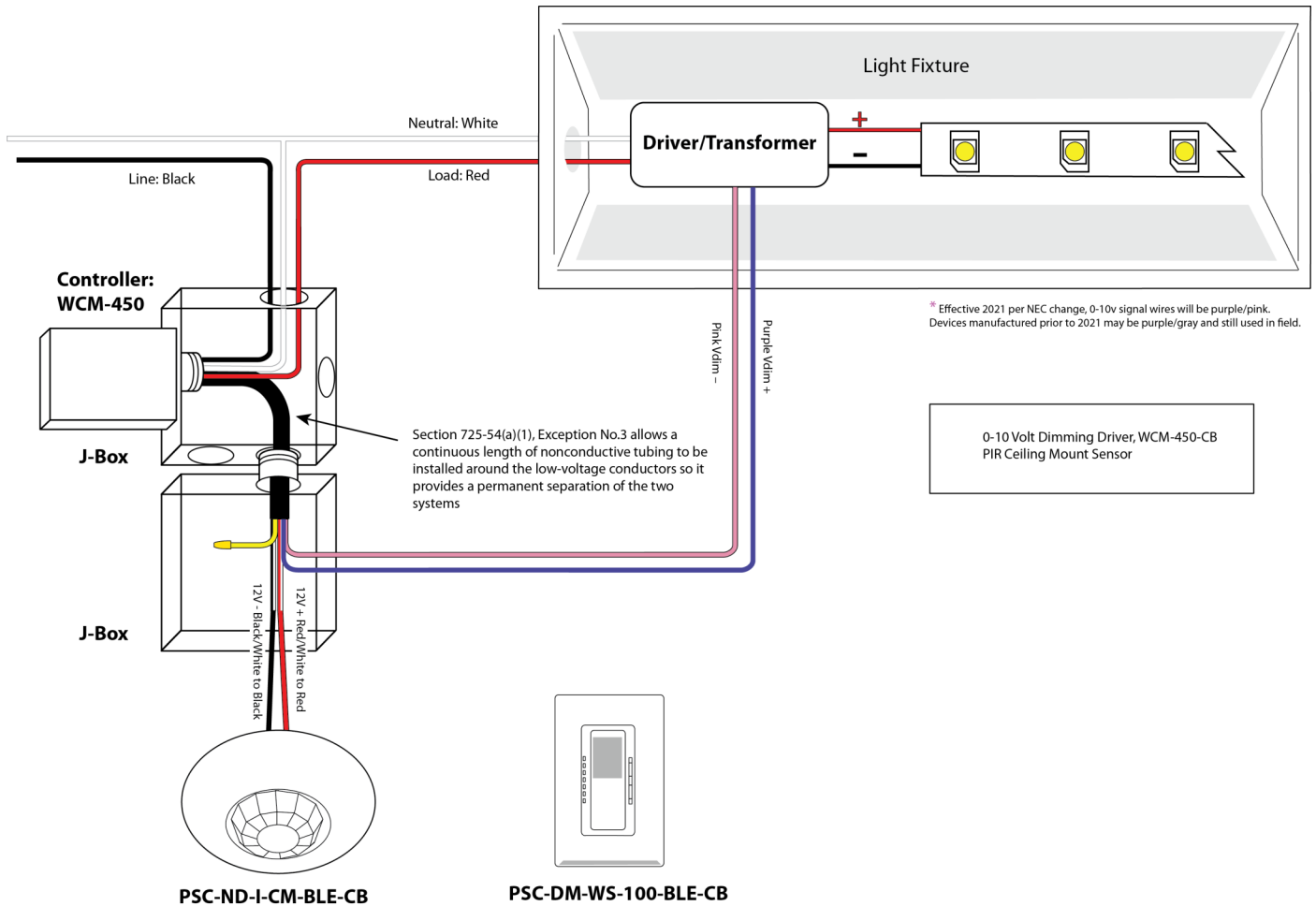
| Project | |
|---|---|
| Location/Type | |

## Physical Dimensions



G1/2

3.54"
(90mm)

3.86"
(98mm)

4.17"
(106mm)

2.36"
(60mm)

2.85"
(72.5mm)

1.30"
(33mm)

Drawings are Not to Scale

## Wiring Diagram



Light Fixture

Neutral: White

Line: Black

Load: Red

Driver/Transformer

+

−

**Controller: WCM-450**

**J-Box**

Pink Vdim −

Purple Vdim +

* 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.

Section 725-54(a)(1), Exception No.3 allows a continuous length of nonconductive tubing to be installed around the low-voltage conductors so it provides a permanent separation of the two systems

0-10 Volt Dimming Driver, WCM-450-CB PIR Ceiling Mount Sensor

**J-Box**

12V − Black/White to Black

12V + Red/White to Red

**PSC-ND-I-CM-BLE-CB**
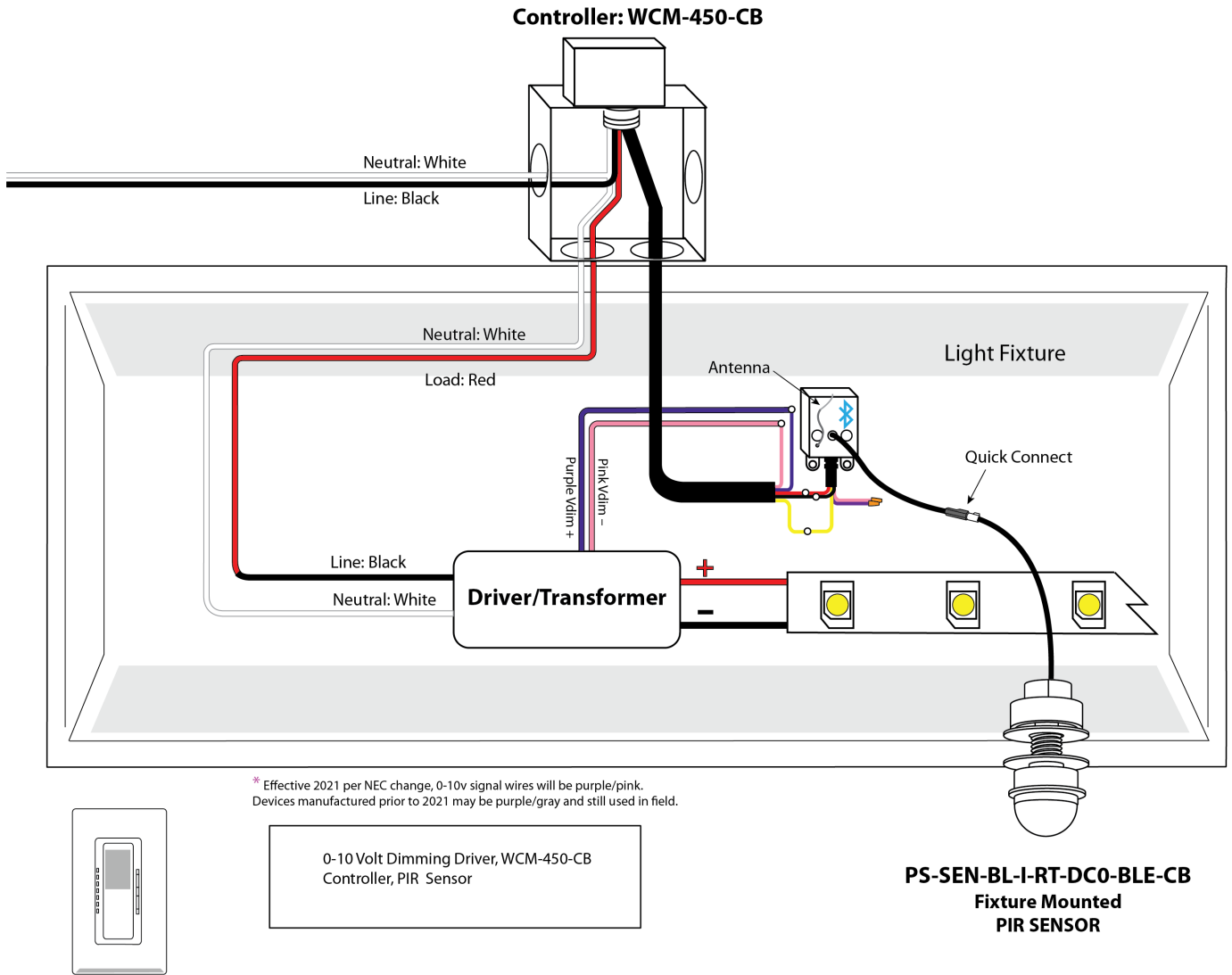
**PSC-DM-WS-100-BLE-CB**

| Input Line Black, Input Common White, Load Red | 12AWG, 180+/-20mm, Strip 10mm Tin Plated |
|---|---|
| Output 12V+ Red/White, Output 12V− Black/White, Sen Input Yellow, 0-10V+ Purple*, 0-10V− Pink* | 22AWG, 180+/-20mm, Strip 10mm Tin Plated |

* Pink and Purple Leads on PSC-WCM-450-BLE-SR only

![McWong logo]

## Wiring Diagram

**Controller: WCM-450-CB**

Neutral: White
Line: Black

Neutral: White
Load: Red

Antenna

**Light Fixture**

Purple Vdim +
Pink Vdim −

Quick Connect

Line: Black
Neutral: White

**Driver/Transformer**

**+**
**−**

*\* 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, WCM-450-CB
Controller, PIR  Sensor

**PS-SEN-BL-I-RT-DC0-BLE-CB**
**Fixture Mounted**
**PIR SENSOR**

## How to Order

| Model No. | Description | Input Voltage | Relay | Dimming Output | Aux. Output | Sensor Input |
|---|---|---|---|---|---|---|
| PSC-WCM-400-BLE-CB | Wireless Line Voltage Room Controller, Casambi technology partner | 100-277VAC | 20A | 0-10V, 100mA | NA | NA |
| PSC-WCM-450-BLE-CB | Wireless Line Voltage Room Controller, Casambi technology partner | 100-277VAC | 20A | 0-10V, 100mA | 12V,300mA | YES |

Design and specifications are subject to change without notice.