

Smart Sensor Control Platform PSC-BL-X-XX-DC0 + PSC-WCM-XXXX

System Overview

The PacWave by McWong Smart Sensor Control Platform (PacWave Wireless Platform) comprises a variety of occupancy / motion sensors options, power packs, ambient light sensors, and fixture controllers, all Bluetooth® mesh-ready for use in site-wide commercial and industrial applications.

While PacWave's core technology is built around the Bluetooth standard, the platform's design versatility enables the McWong team to partner with OEMs in support of their unique wireless requirements. Whether Bluetooth®, Zigbee®, or other leading communication protocol, the PacWave Wireless Platform provides a suite of enterprise-grade sensors and controls ready for integration.

Beyond energy efficiency, the PacWave Wireless Platform offers optional Bluetooth Beacon capability in each hardware component, expanding customers' ability to leverage ROI across the rapidly expanding markets of location-based advertising, heat-mapping, asset tracking, location-based navigation, etc.



Overview

PSC-WCM-100x:

- 2 Channels of 0-10 Dimming
- 12 V Relay Control Output
- Ambient Light Sensor Input
- External and Internal Temperature Sensing
- Bluetooth® allowing for wireless control
- Two voltage input options

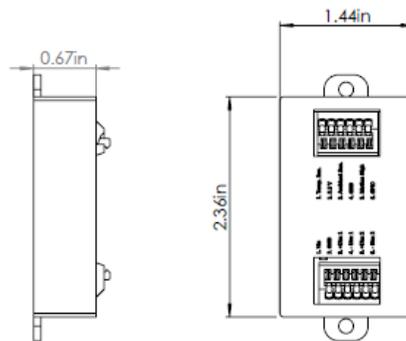
Applications

The PacWave™ Wireless Fixture Controller allows for two channels of 0-10 dimming, temperature monitoring, ambient light monitoring, active high relay control, and has a general purpose I/O. This unit is controlled wirelessly via the PacWave™ Bluetooth® Smart module allowing for wireless dimming of LED lighting. The small physical size allows for this unit to be placed within the fixture. Alternate input voltages are available for voltages rated 18-60 V.

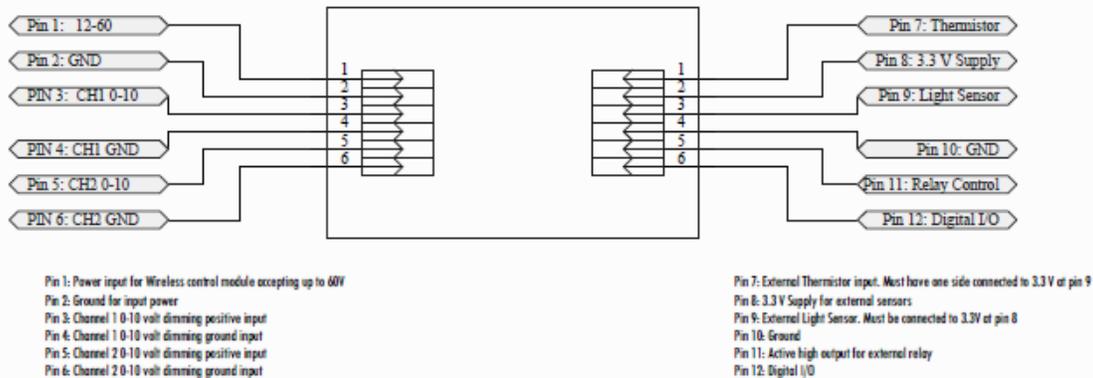


Summary	
Product Type	Wireless BLE Fixture Controller
Input Voltage	12-60 VDC
Operating Temperature	-30° C to 70°C
Storage Temperature	-40° C to 80°C
Relative Humidity	90-95% non-condensing at 30°C
Mounting	Fixture or ceiling mount (max 40ft high)
Color	White
Warranty	X Years
Certifications	
Relay Control	12 VDC

Physical Dimensions



Wiring Diagram



How to Order

Model No.	Description	Input Voltage	Output
PSC-WCM-100L	Wireless Fixture Controller Module	12-24 VDC	0-10 VDC Control High
PSC-WCM-100H	High Voltage Wireless Fixture Controller Module	18-60 VDC	0-10 VDC Control High

Wireless Dimming Sensor Overview

The PSC-BL-X-XX-DC0 is a Class 2 Device designed to satisfy new CA Title 24 requirements for bi-level dimming of lighting fixtures. Using a 0-10V signal, the sensor is capable of dimming lighting loads down to 0%¹, 10%, 25%, or 50%.

Most of the sensors in this family are suitable for a variety of indoor and outdoor applications². It supports fixture and ceiling mounts from 8-12ft high. 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.

0-10V: 100mA to drive up to 50 LED sink drivers on 0-10V output.
High Vin-2.5V 100mA source
Low 100mA sink current



¹For dim to off, Pacific PSC-AC-PP-200/300/400 Power Pack or LED dimming driver capable of dimming to off is required.

²PSC-BL-I-RT-DC0 - Suitable for indoor use only.

Sensor Operation

End users can manually program length of time delay, sensor range and dimming level using a series of dipswitches and trimpots. Simply remove the cover to gain access.

Bi-level Dimming³: 0-10V bi-level dimmer connects to 0-10V control on the LED driver. When motion is detected the sensor will bring lighting up to 100% lumen output. When no motion is detected for the length of TD1, the sensor will send a signal to dim lighting to a specific level set by the end-user. If no motion is detected for the length of TD2, the sensor will send a signal to shut off the light.

Relay Control: Two additional High and Low motion outputs can be used to control relays or other control circuitry.

Bluetooth® Enabled Version: Add “-BLE” suffix to order the sensor with wireless control. The Bluetooth® enabled sensor pairs with an Android or iOS application to allow initial setup and subsequent sensor adjustments, beyond what the analog controls on the sensor can offer. The application enables users to adjust sensor parameters such as time delay, dim level, sensitivity, and more. Additionally, features such as parameter profiles, password protection, manual dim control, and real-time feedback from the sensor can speed up configuration and provide custom user control.

Accessories

Power Pack: The PSC-BL-M-FM-DC0 operates on 12-24VDC input and requires a separate power pack such as the PacWave™ PSC-AC-PP-200/300/400.

This power pack incorporates a high current relay and a high voltage transformer which can accept universal input (100-305VAC).

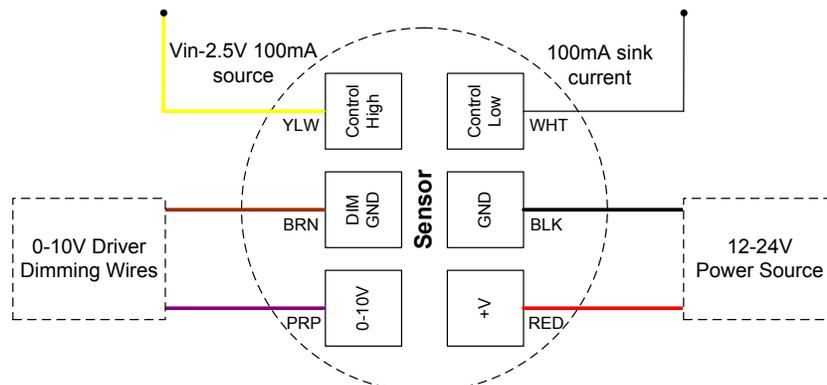
Alternatively, the sensor can also operate with a driver that has an auxiliary output (12V).

³The sensor will dim the light if motion is not detected for the first time delay (TD1) and shut off the light if motion is not detected for the second time delay (TD2). TD2 will only count down after TD1 has expired and the light has dimmed. If motion is detected during TD2, the light will return to full output, and TD1 will restart.

If using a power pack, the sensor will tell the power pack to shut off the driver after TD2 expires to turn off the light. If using a dimming driver without a power pack, the sensor will try to dim down to 0% upon expiration of TD2.

Since one trimpot configures both TD1 and TD2, a fixed TD2 is set to each value of TD1

Wiring Diagram



Note: If using a power pack other than PSC-AC-PP-200/300/400 as power source, connect either Control High or Control Low, depending on power pack relay circuitry.