



## APPLICATIONS

The BMS-M100-WCM-DC1-BLE-SR-Z10 and the BMS-M110-PIR-DC1-BLE-SR-Z10 are a series of 1-Channel Wireless Fixture Controllers. Both versions have active high outputs for relay control.

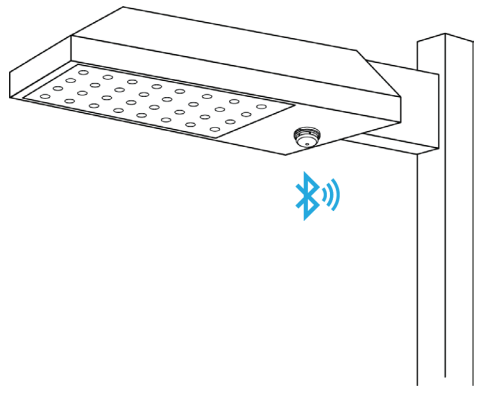
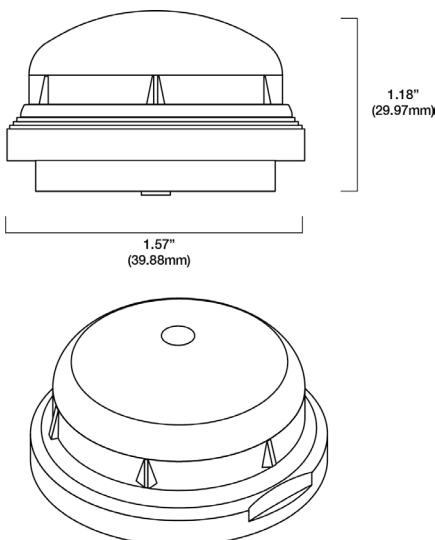
The controllers are IP65 rated for exterior use. They are suitable for a variety of indoor and outdoor applications in temperatures ranging from -40° to 70°C. The BMS-M110-WCM-DC1-BLE-SR-Z10 version also has an integral photosensor.

These devices are controlled wirelessly via Bluetooth® Mesh technology allowing for wireless dimming of luminaires. The compact size allows for seamless integration to the fixture.

## OVERVIEW

- 1-Channel 0-10VDC Dimming
- Mounts On Fixture
- Bluetooth® SIG mesh
- High-End Trim, Zoning, Continuous Dimming, Photocell (BMRC-ZKV-R1L version)
- Powered by 12-24VDC
- Sensor Output (active high)
- IP-65 Outdoor And Indoor Applications
- Quick Connector For Easy Installation

## PHYSICAL DIMENSIONS



Drawing Are Not To Scale

## SUMMARY

Product Type:

**1-Channel Wireless Fixture Controller**  
(-110-model includes photosensor)

Input Voltage

**12-24 VDC | 100 mA max**

**0-10V Output 30 mA**

**Load Control Output: 10-22VDC**  
**30mA (Active High)**

**Fixture Mount: Mounts to**  
**BMRC-ZKV-R1L receptacle, sold**  
**separately.**

**Max Bluetooth Range¹:**  
**100ft (30.4m)**

Operating Temperature:

**-30°C to 70°C (-22°F- 158°F)**

Storage Temperature:

**-40° C to 85°C (-40°F- 185°F)**

Relative Humidity:

**90-95% non-condensing at 30°C**

Color:

**Brown (standard default), Black or White**

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.

## OPERATION

### Bluemesh® Controls:

Qualified by Bluetooth SIG for its Bluetooth Mesh 1.0.1 specification, the controller connects to a Bluetooth mesh network and is accessed via the BlueMesh 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 BlueMesh® Gateway (ordered separately).

**1-Channel:** Allows for one 0-10V dimming channel for driver control.

**Relay Control:** 10-22VDC active high output to control relays or other control circuitry.

### Photosensor (BMS-M110-PIR-DC1-BLE-SR-Z10 version only):

Features a single setpoint for ambient light detection for automated control.

**Quick Connector:** The controller mounts to a receptacle (BMRC-ZKV-R1L). One receptacle is required for mounting each controller.

See BlueMesh® Commissioning User Manual for more information.

## ACCESSORIES

### Power Pack:

The BMS-M100-WCM-DC1-BLE-SR-Z10 and the BMS-M110-WCM-DC1-BLE-SR-Z10 operates on 12-24VDC input and require a separate BlueMesh Connector.

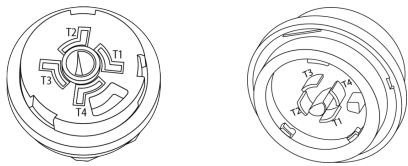
Alternatively, the unit can also operate with a driver that has an auxiliary output (12 or 24VDC).

## ORDERING INFORMATION

**Example:** BMS-M100-WCM-DC1-BLE-SR-Z10-BZ

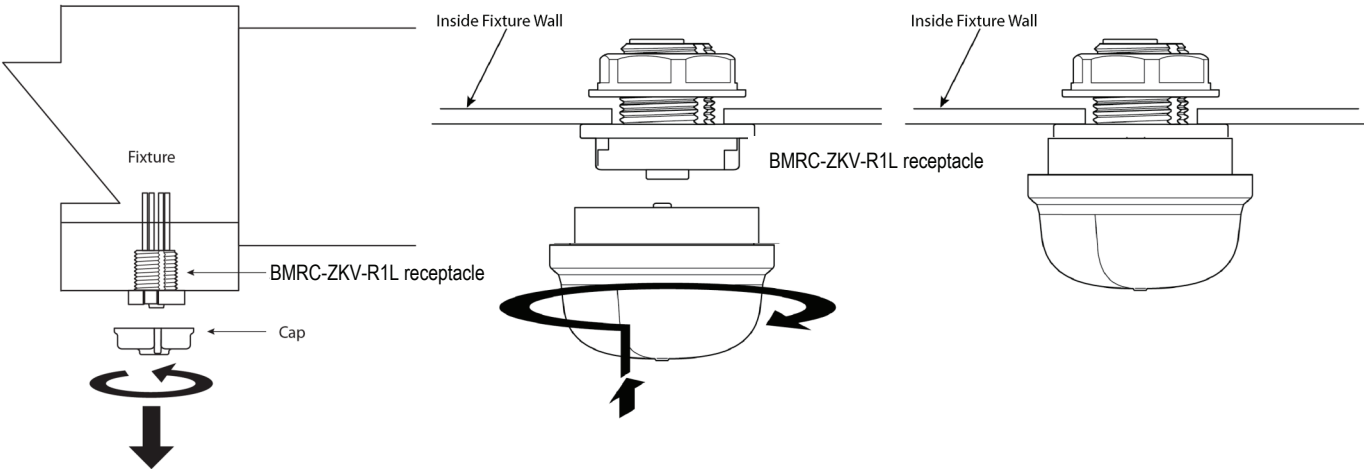
Model No.	Description	Input Voltage	Output
BMS-M100-WCM-DC1-BLE-SR-Z10-BZ	Fixture Controller with 0-10V Dimming, Bluetooth Mesh in BlueMesh® standard Brown Color	12-24VDC	Control High 0-10V Dimming
BMS-M110-WCM-DC1-BLE-SR-Z10-BZ	Fixture Controller with 0-10V Dimming, Light Sensing, Bluetooth Mesh in BlueMesh® standard Brown Color	12-24VDC	Control High 0-10V Dimming
BMS-M100-WCM-DC1-BLE-SR-Z10-WH	Fixture Controller with 0-10V Dimming, Bluetooth Mesh in BlueMesh® White Color	12-24VDC	Control High 0-10V Dimming
BMS-M110-WCM-DC1-BLE-SR-Z10-WH	Fixture Controller with 0-10V Dimming, Light Sensing, Bluetooth Mesh in BlueMesh® White Color	12-24VDC	Control High 0-10V Dimming
BMS-M100-WCM-DC1-BLE-SR-Z10-BK	Fixture Controller with 0-10V Dimming, Bluetooth Mesh in BlueMesh® Black Color	12-24VDC	Control High 0-10V Dimming
BMS-M110-WCM-DC1-BLE-SR-Z10-BK	Fixture Controller with 0-10V Dimming, Light Sensing, Bluetooth Mesh in BlueMesh® Black Color	12-24VDC	Control High 0-10V Dimming
BMRC-ZKV-R1L	Receptacle for Fixture Controller	12 24VDC	

Installation Of Sensor



The receptacle for Controller is installed at fixture manufacturer and is shipped to job site with a protective cap

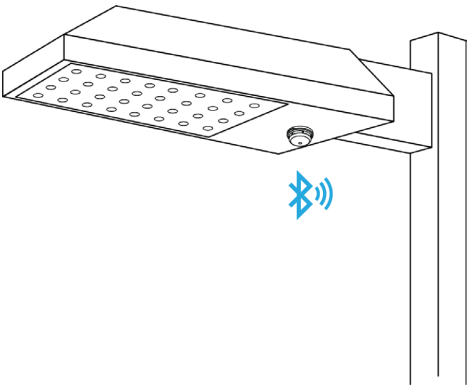
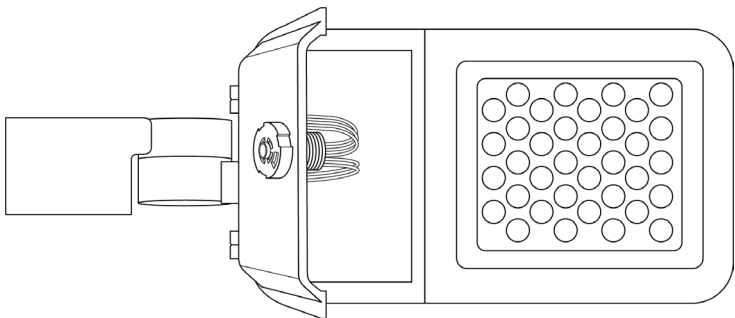
Tab/Slot	Designation	Notes
T1	12-24VDC+ Power To Controller	Red Wire (Receptacle)
T2	12-24VDC- Power And 0-10VDC-/Common	Black Wire (Receptacle)
T3	0-10VDC+ Control Signal from Controller	Purple (Violet) Wire (Receptacle)
T4	Vin-2.5V 30mA Load Control Output (Active High)	Yellow Wire (Receptacle)



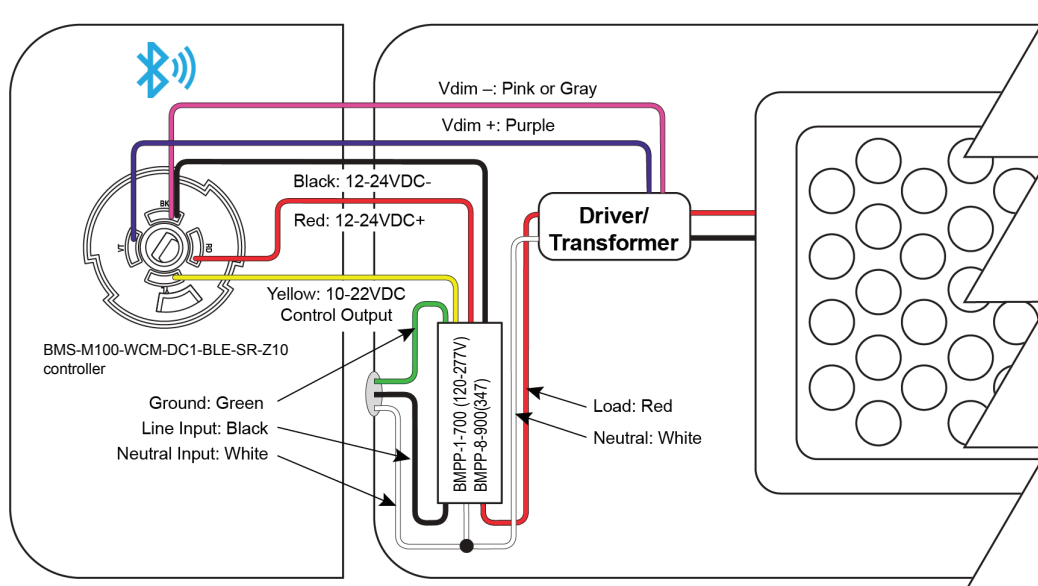
To install controller, first remove the protective cap on the BMRC-ZKV-R1L receptacle by pushing up and rotating counter-clockwise.

To install controller insert, push up and rotate to lock. No tools required. Luminaires can be easily and quickly upgraded.

Example Application: Sensor Installed With Power Pack (BMPP-8-700 or BMPP-8-900) - Single Fixture

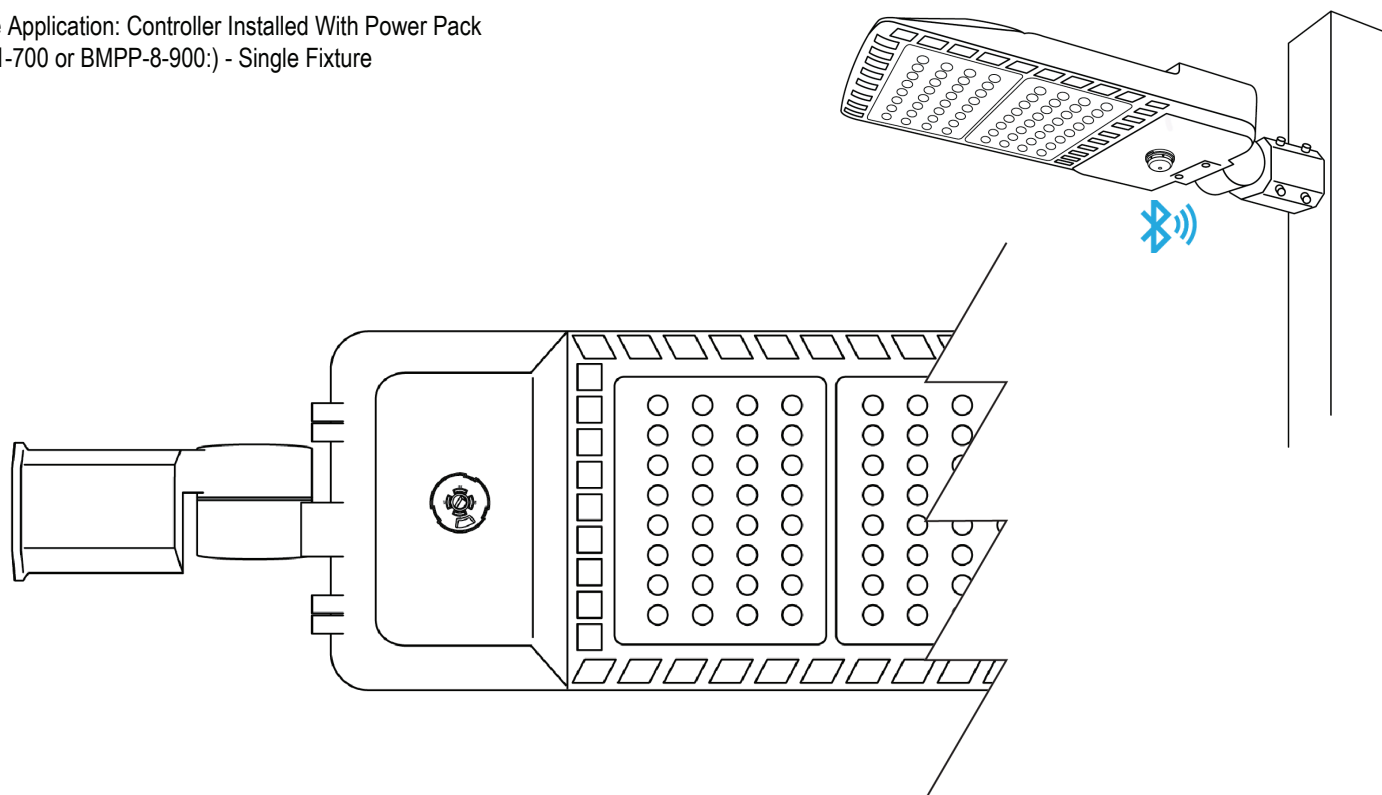


Receptacle on outside of fixture

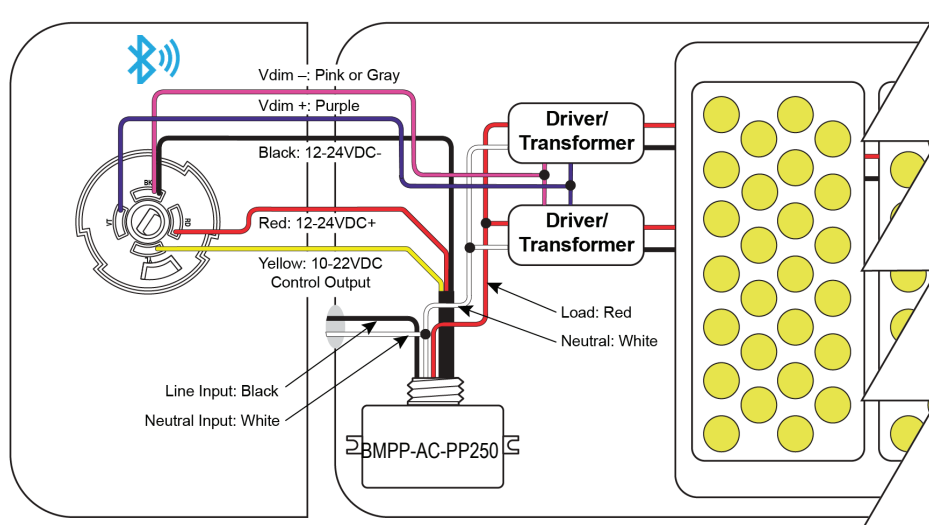


Receptacle with BMPP-8-700 power pack, and LED dimmable driver  
(open wiring compartment)

Example Application: Controller Installed With Power Pack  
(BMPP-1-700 or BMPP-8-900:) - Single Fixture

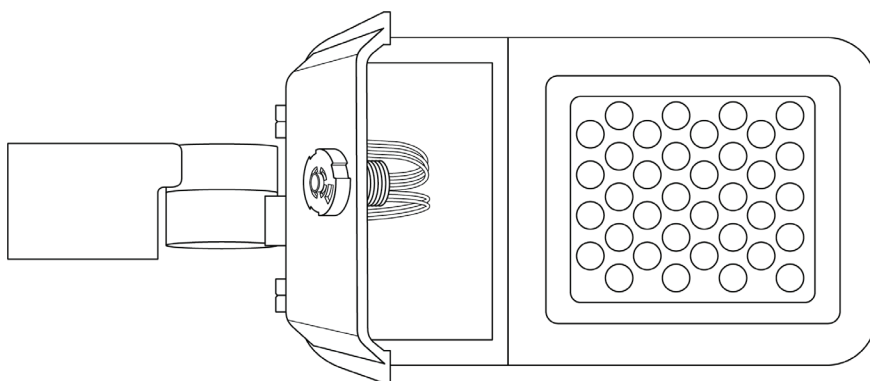
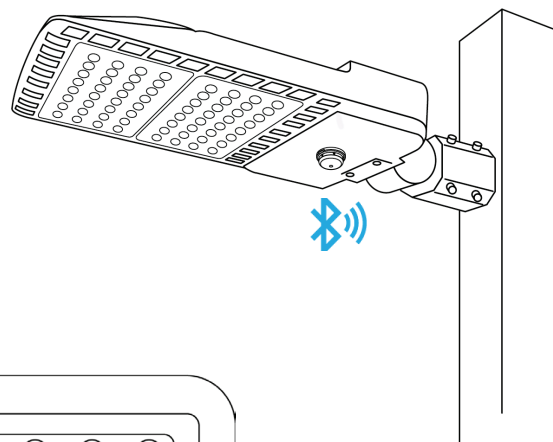


Receptacle on outside of fixture

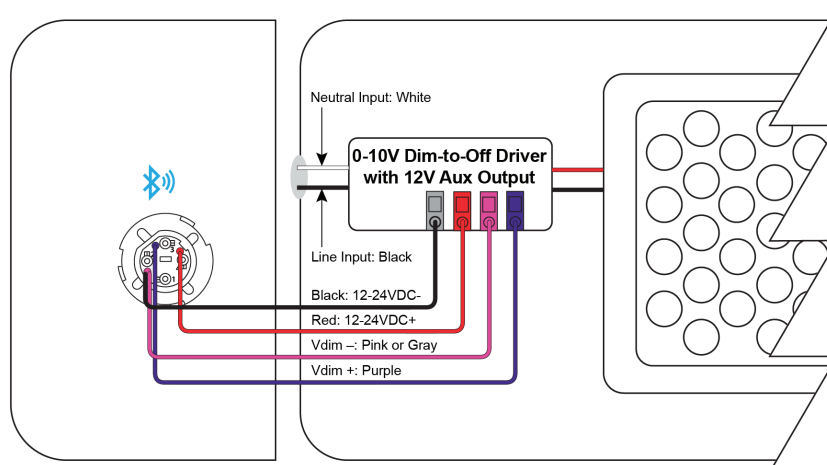


BMRC-ZKV-R1L Receptacle with BMPP-AC-PP250 power pack,  
and LED dimmable driver (open wiring compartment)

Example Application: Controller Installed With 0-10V  
Dim-To-Off With 12VDC Auxiliary Output



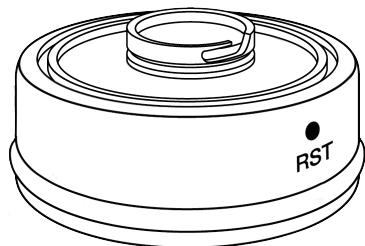
BMRC-ZKV-R1 Receptacle on outside of fixture



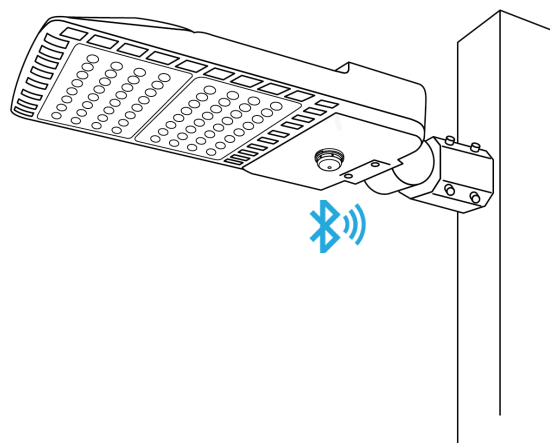
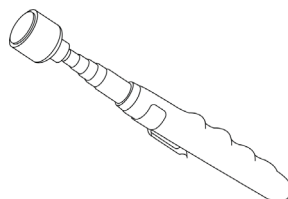
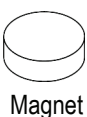
BMRC-ZKV-R1 Receptacle, 0-10V Dim to off driver with 12v auxiliary output (open wiring compartment)

### Reset Instructions

Using a magnet ( pull strength), hold the magnet against the dot labeled RST (reset).



Once the fixture associated with the Sensor has flashed 3 times then stayed on, remove the magnet. The controller is now reset to factory conditions and ready to be reprogrammed.



## WARRANTY

Five year limited warranty.

Specifications subject to change without notice.