



APPLICATIONS

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

The BMS-M100-PIR-DC1-BLE-SR-Z10 and the BMS-M110-PIR-DC1-BLE-SR-Z10-BZ use PIR motion detection architecture and passive infrared (PIR) technology for improved detection coverage.

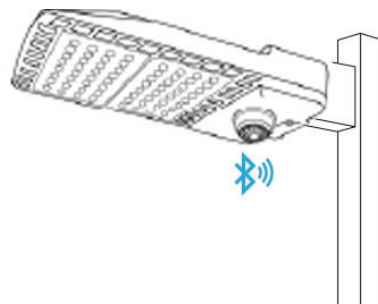
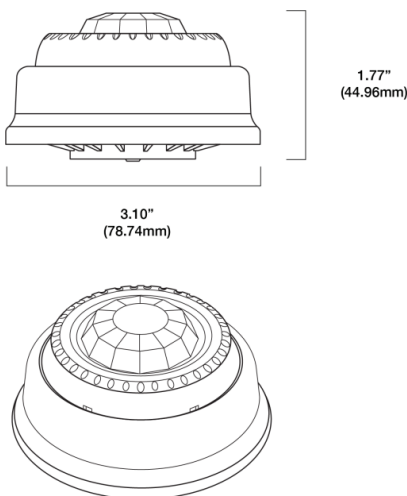
The controllers are IP65 rated for exterior use. They are suitable for a variety of indoor and outdoor applications in temperatures ranging from -40° to 70°C. The BMS-M110-PIR-DC1-BLE-SR-Z10-BZ version also has an integral photosensor.

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
- PIR Sensor Mounting Height Up To 40 ft (12.2 m)
- Photocell (-110 version)
- High-End Trim, Zoning, Continuous Dimming
- Powered by 12-24VDC
- Sensor Output (active high)
- IP-65 Rated for Outdoor or PIR 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 | 50 mA max
0-10V Output 30 mA**

Height:

High Bay 20-40ft (6.1-12.2m)

Low Bay 8-30ft (2.4-9.1m)

Max Sensor Range: High Bay 80ft (24.4m) radius Low Bay 60ft (18.3m) radius

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:

-40°C to 70°C (-40°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.

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

Relay Control: Load control output (active high) can be used to trigger 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:

Sensor Lens: The BMS-M100-PIR-DC1-BLE-SR-Z10 and the BMS-M110-PIR-DC1-BLE-SR-Z10 require a High Bay or Low Bay lens option (sold separately).

The controllers require 12-24VDC power from a separate power pack or driver with auxiliary output.

ORDERING INFORMATION

Example: BMS-M100-PIR-DC1-BLE-SR-Z10

Model No.	Description	Input Voltage	Output
BMS-M100-PIR-DC1-BLE-SR-Z10-BZ	Fixture Controller with 0-10V Dimming, PIR Motion Sensor, Bluetooth Mesh in BlueMesh® standard Dark Brown Color	12-24VDC	Control High 0-10V Dimming
BMS-M110-PIR-DC1-BLE-SR-Z10-BZ	Fixture Controller with 0-10V Dimming, PIR Motion Sensor, Light Sensing, Bluetooth Mesh in BlueMesh® standard Dark Brown Color	12-24VDC	Control High 0-10V Dimming
BMS-M100-PIR-DC1-BLE-SR-Z10-WH	Fixture Controller with 0-10V Dimming, PIR Motion Sensor, Bluetooth Mesh in BlueMesh®, White Color, Silvair technology partner	12-24VDC	Control High 0-10V Dimming
BMS-M110-PIR-DC1-BLE-SR-Z10-WH	Fixture Controller with 0-10V Dimming, PIR Motion Sensor, Light Sensing, Bluetooth Mesh in BlueMesh®, White Color	12-24VDC	Control High 0-10V Dimming
BMS-M100-PIR-DC1-BLE-SR-Z10-BK	Fixture Controller with 0-10V Dimming, PIR Motion Sensor, Bluetooth Mesh in BlueMesh®, Black Color	12-24VDC	Control High 0-10V Dimming
BMS-M110-PIR-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
LS01-LB-F3-XX	360° Low Bay Lens, maximum coverage 60ft diameter at 30ft and 40ft height –replace –XX with –BN for Brown finish, -BK for Black finish or –WT for Brown finish		
LS01-HB-F3-XX	360° High Bay Lens, maximum coverage 80ft diameter at 30ft-40ft height –replace –XX with –BN for Brown finish, -BK for Black finish or –WT for Brown finish		
BMRC-ZKV-R1L	Receptacle for Fixture Controller	12-24VDC	

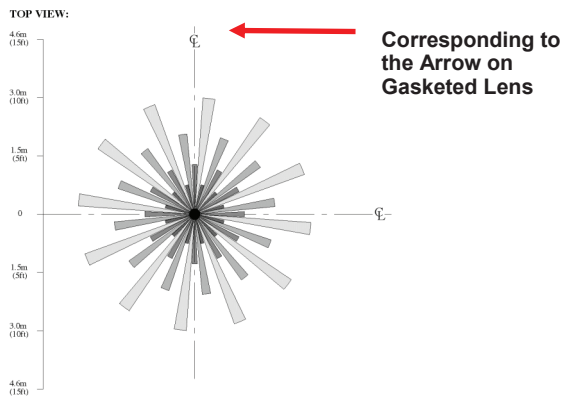
Detection Area



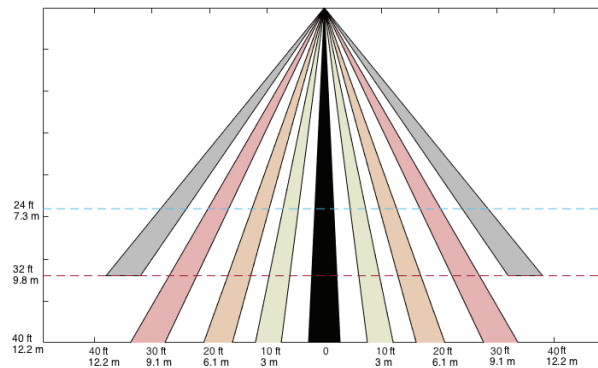
Fresnel Lens:

Lenses are available in:
 Low Bay Lens for mounting height at 8-30 ft (2.4-9.1 m),
 High Bay Lens for mounting height at 20-40 ft (6.1-12.2 m).

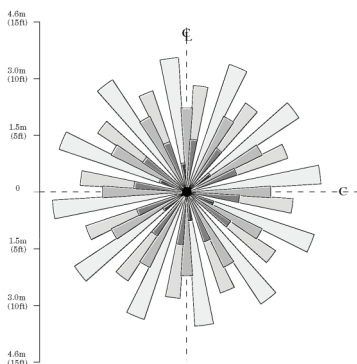
HBL: High Bay Lens-Top View at 8 ft (2.4m)



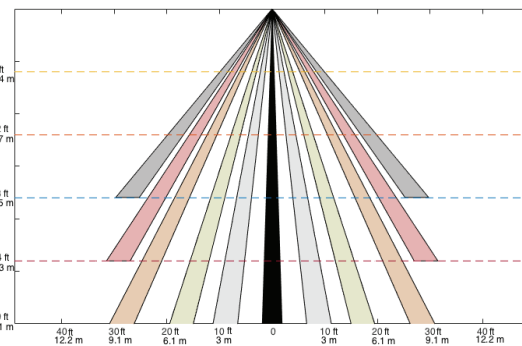
HBL - Side View



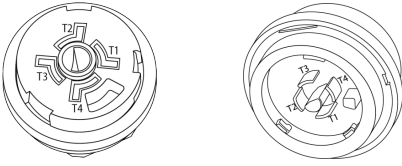
LBL: Low Bay Lens-Top View at 8 ft (2.4m)



LBL - Side View

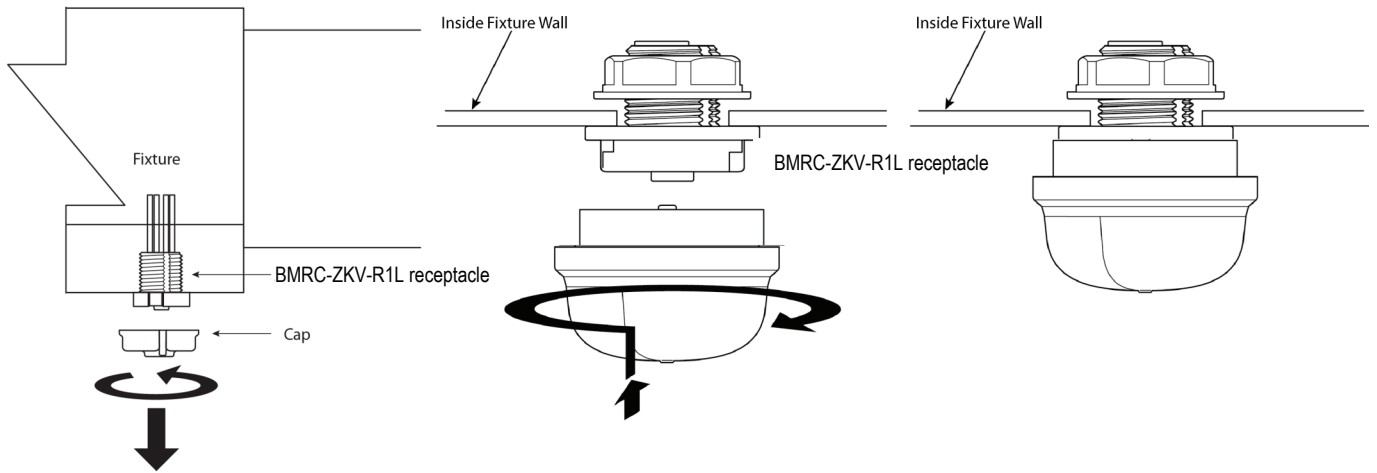


Installation Of Sensor



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

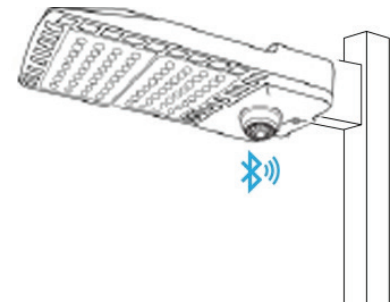
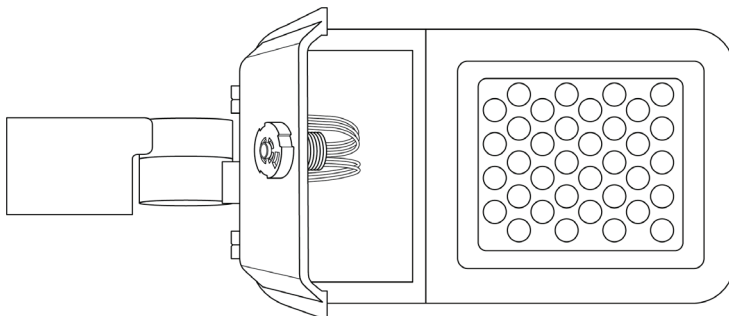
Tab/Slot	Designation	Notes
T1	12-24VDC+ Power To Sensor	Red Wire (Receptacle)
T2	12-24VDC- Power And 0-10VDC-/Common	Black Wire (Receptacle)
T3	0-10VDC+ Control Signal From Sensor	Purple (Violet) Wire (Receptacle)
T4	10-22VDC 30mA Load Sensor Output (Active High)	Yellow Wire (Receptacle)



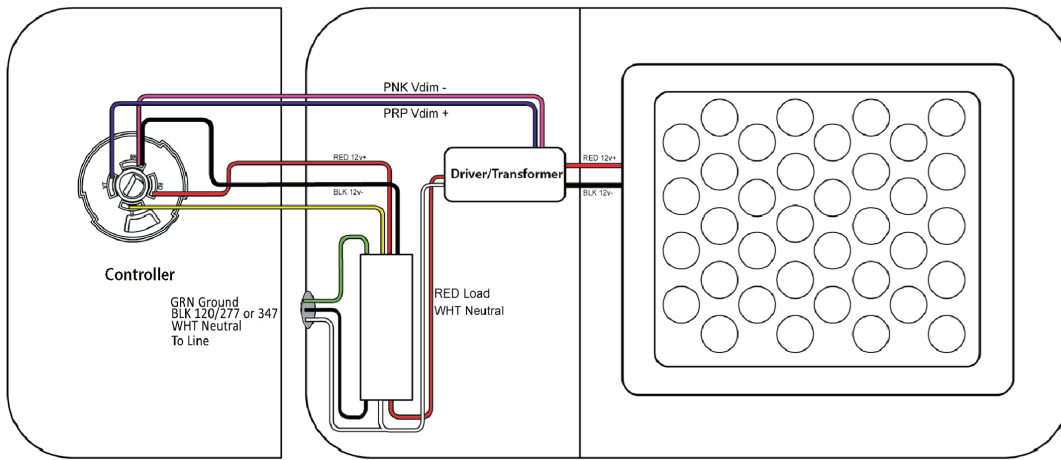
To install Sensor, first remove the protective cap on the BMRC-ZKV-R1L receptacle by pushing up and rotating counter-clockwise.

To install Sensor 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

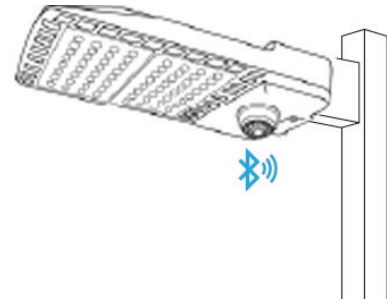
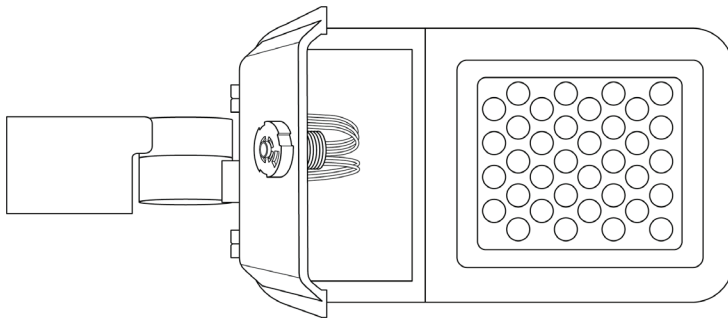


Receptacle on outside of fixture

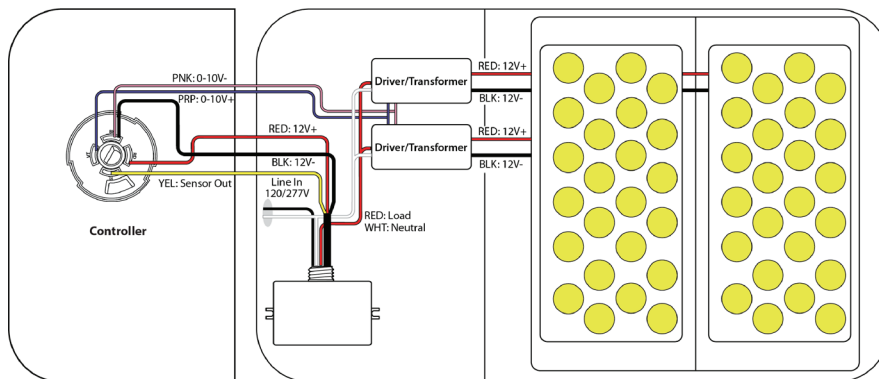


Receptacle with BMPP-8-700 power pack, and LED dimmable driver (open wiring compartment)

Example Application: Sensor Installed With Power Pack (BMPP-AC-PP250) - Single Fixture With Multiple Drivers

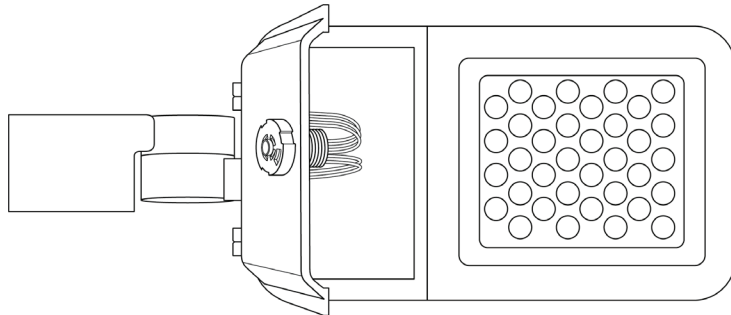


Receptacle on outside of fixture

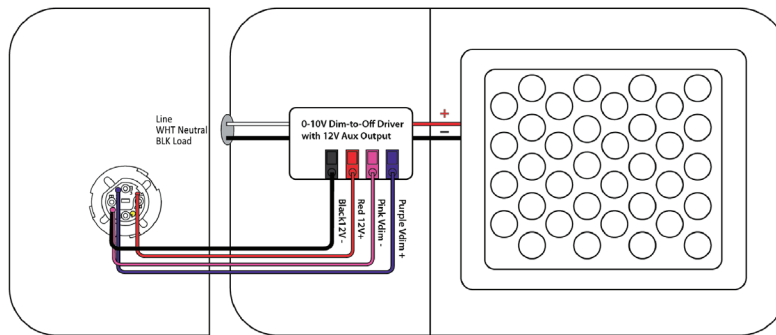
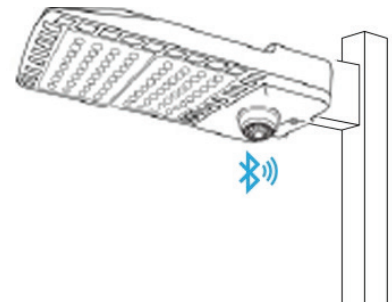


Receptacle with power pack, and LED driver (open wiring compartment)

Example Application: Sensor Installed With Power Pack (BMPP-AC-PP250) - Single Fixture With Multiple Drivers



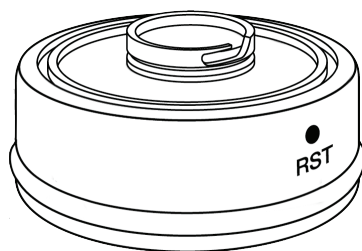
Receptacle on outside of fixture



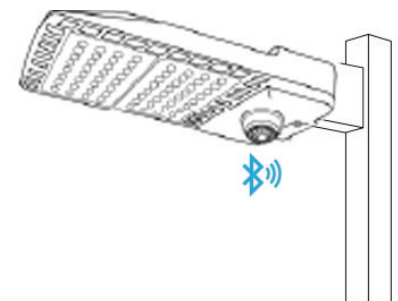
Receptacle, 0-10V dim to off driver with 12v auxiliary output (wiring compartment open)

Reset Instructions

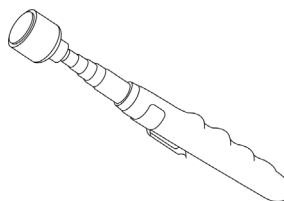
Using a magnet (pull strength), hold the magnet against the dot labeled RST (reset).



Magnet



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.



Telescoping Magnet