

TruBlu Mesh Passive Infrared Outdoor Sensor-Controller

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 Indoor Applications
- Quick Connector For Easy Installation



For Indoor or Outdoor Use
Receptacle Sold Separately



Applications

The PSC-ZKV-I-100-BLE-SR and the PSC-ZKV-I-110-BLE-SR are a series of 1-Channel Wireless Fixture Controllers. Both versions have active high outputs for relay control.

The PSC-ZKV-I-100-BLE-SR and PSC-ZKV-I-110-BLE-SR 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 PSC-ZKV-WCM-110-BLE-SR 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.

Accessories

Sensor Lens: The PSC-ZKV-I-100-BLE-SR and the PSC-ZKV-I-110-BLE-SR require a High Bay or Low Bay lens option (sold separately).

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

Operation

TruBlu™ Mesh 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 TruBlu 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 TruBlu Gateway (ordered separately).

1-Channel: Outputs 0-10 dimming channel for driver control.

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

Photosensor (PSC-ZKV-I-110-BLE-SR version only): Features a single setpoint for ambient light detection for automated control.

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

See TruBlu™ Commissioning User Manual for more information.

Summary

Product Type:
1-Channel PIR Sensor and Controller (-110-model includes photosensor)

Input Voltage | Current Consumption:
12-24 VDC | 50 mA max

0-10VDC Output: 30 mA

Mounting Heights:
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—Active High
Vin-2.5 V 30 mA

Fixture Mount: Mounts to McWong PSC-ZKV-R1L receptacle, sold separately.

Max Bluetooth Range¹:
100ft (30.4m)

Operating Temperature:
-40° C to 70°C

Storage Temperature:
-40° C to 85°C

Relative Humidity:
90-95% non-condensing at 30°C

Color: Brown (standard default), Black or White

Warranty: 5 years

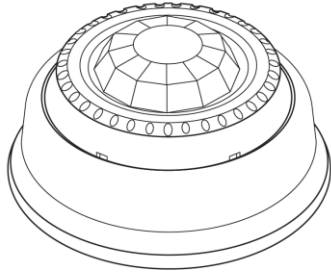
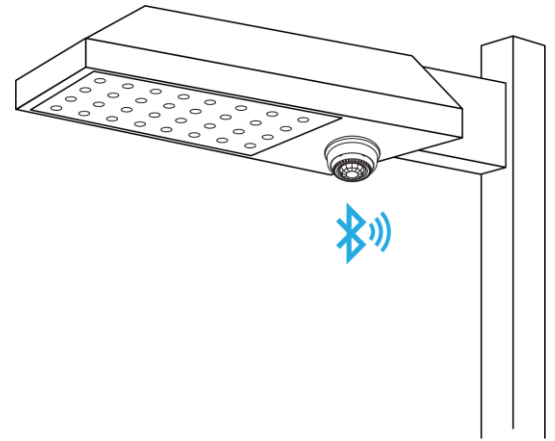
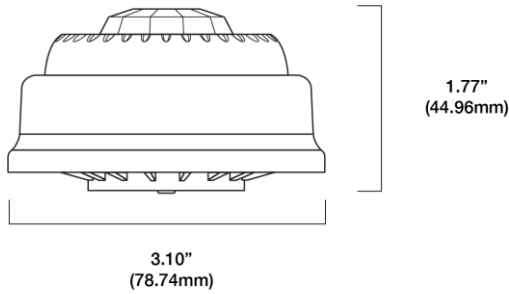
Note:

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

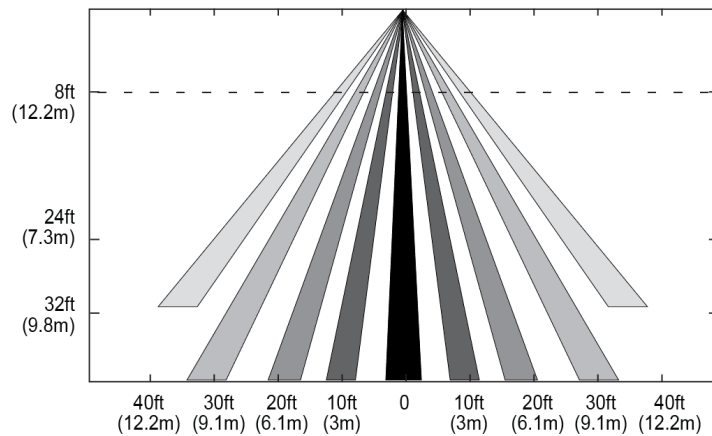
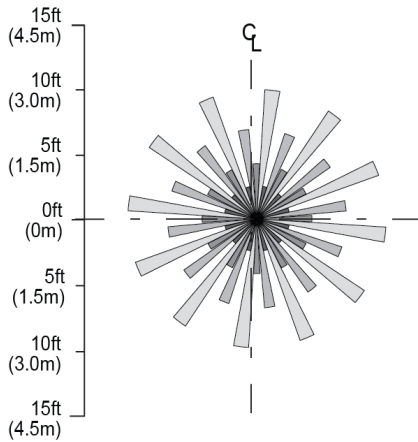
Location/Type

Physical Dimensions

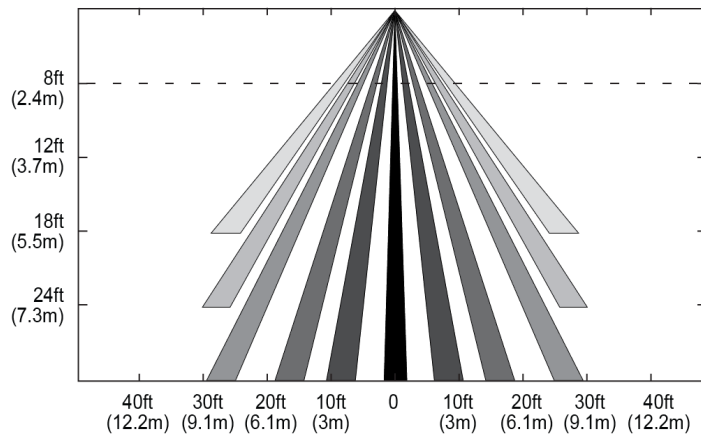
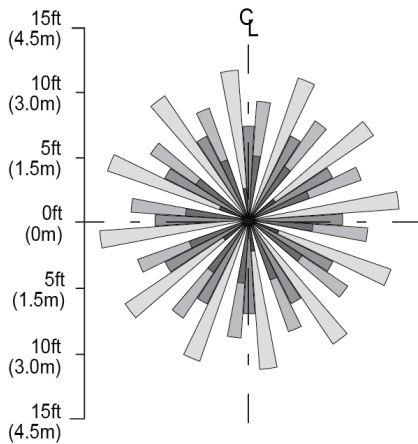


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Sensor Patterns

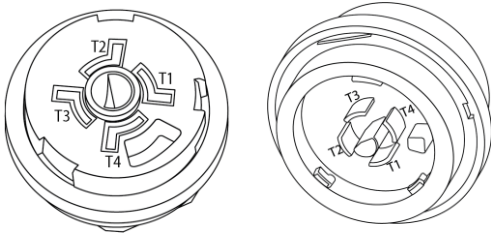


High Bay Lens (H) Pattern



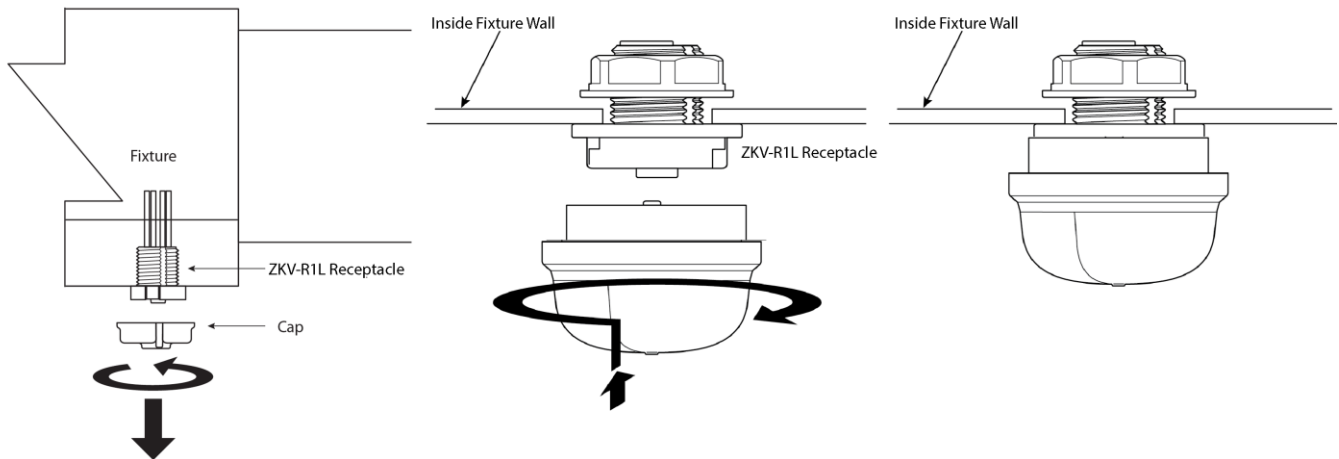
Low Bay Lens (N) Pattern

Installation Of Sensor-Controller



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

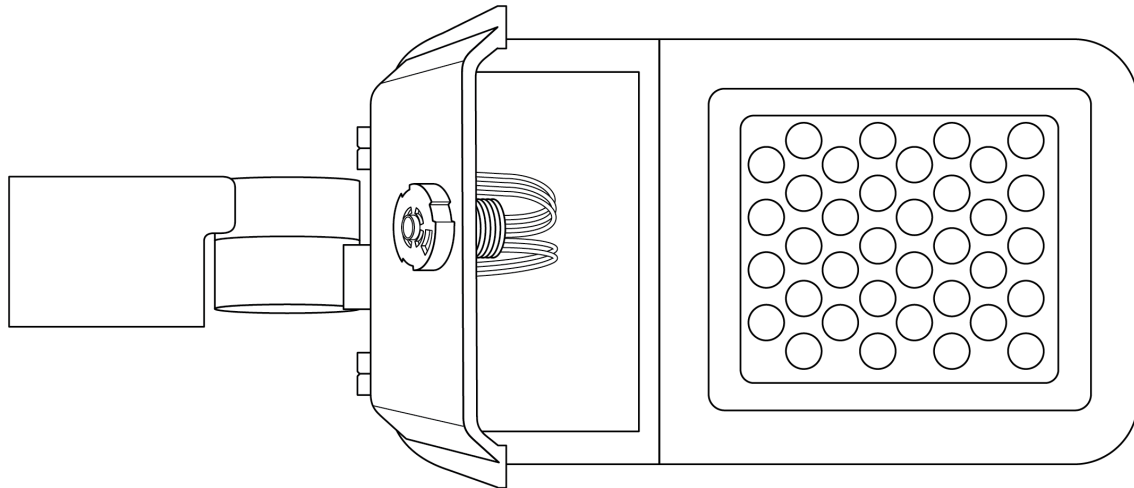
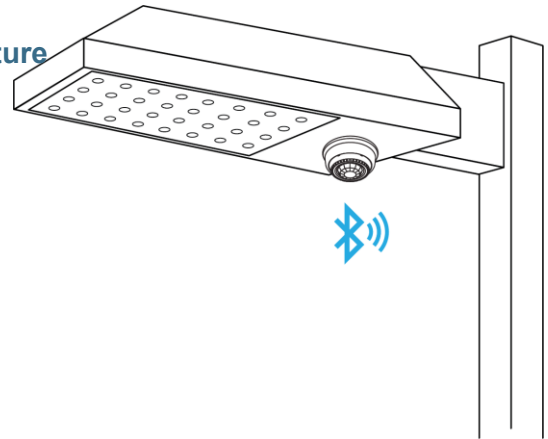
| Tab/Slot | Designation | Notes |
|----------|---|-----------------------------------|
| T1 | 12-24VDC+ Power to Sensor-Controller | Red Wire (Receptacle) |
| T2 | 12-24VDC- Power and 0-10VDC-/Common | Black Wire (Receptacle) |
| T3 | 0-10VDC+ Control Signal from Sensor-Controller | Purple (Violet)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



To install ZKV controller, first remove the protective cap on the ZKV-1RL receptacle by pushing up and rotating counterclockwise.

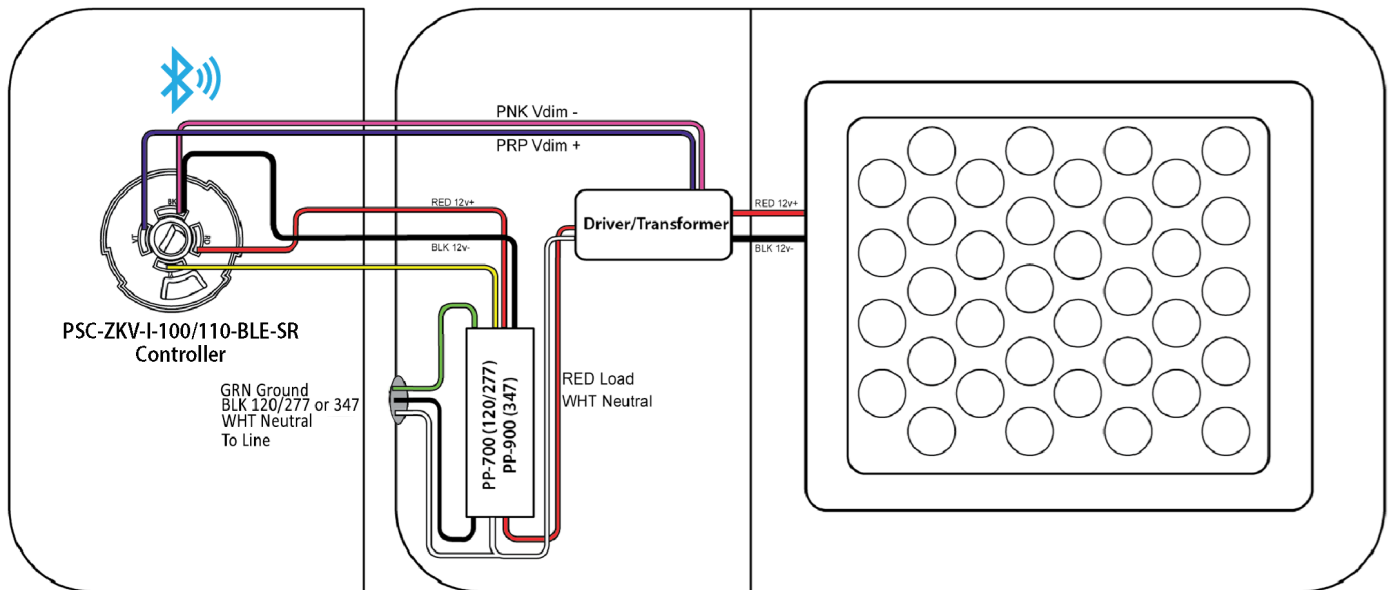
To install ZKV controller insert, push up and rotate to lock. No tools required. Luminaires can be easily and quickly upgraded.

**Example Application: Controller Installed With Power Pack
(mwConnect PSC-AC-PP-700 or PSC-AC-PP-900:) - Single Fixture**



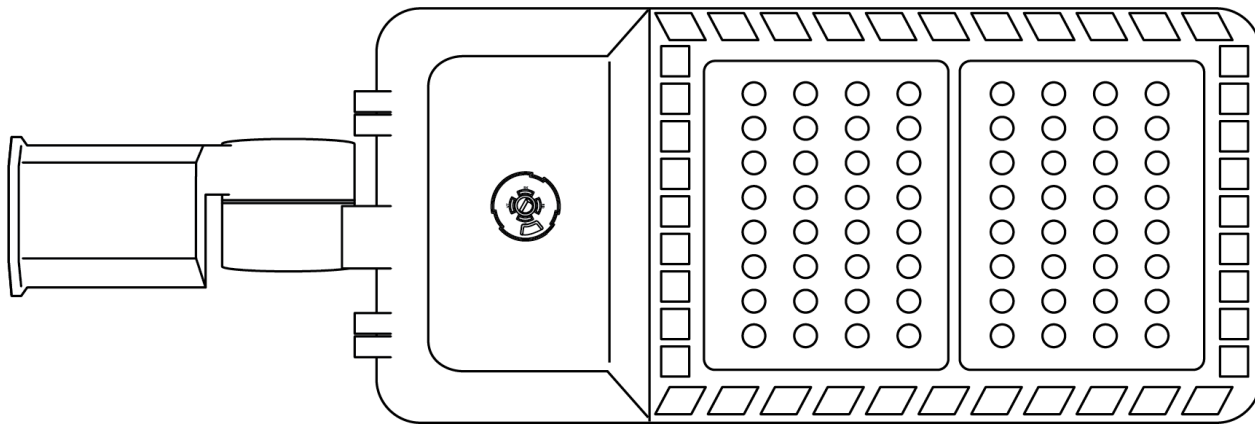
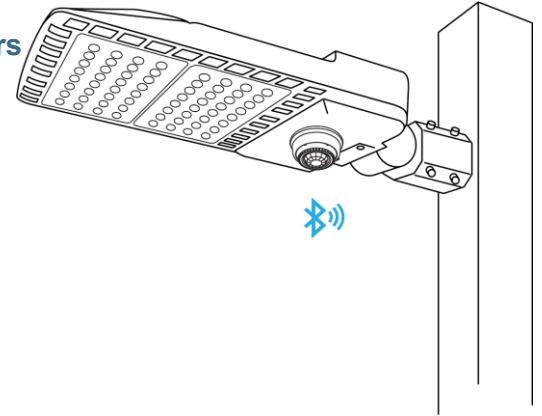
ZKV Receptacle on outside of fixture

Drawings Are Not To Scale



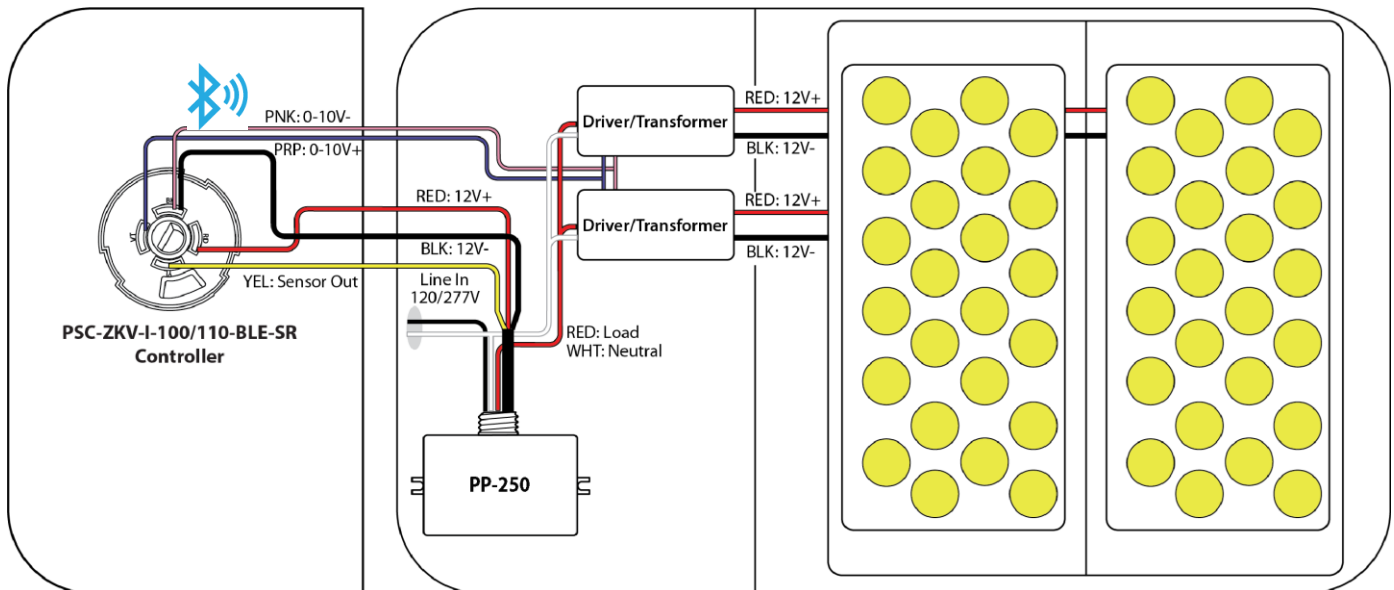
ZKV-I Receptacle with PP-700 power pack, and LED dimmable driver (open wiring compartment)

Example Application: Controller Installed With Power Pack (mwConnect PSC-AC-PP250) Single Fixture With Multiple Drivers



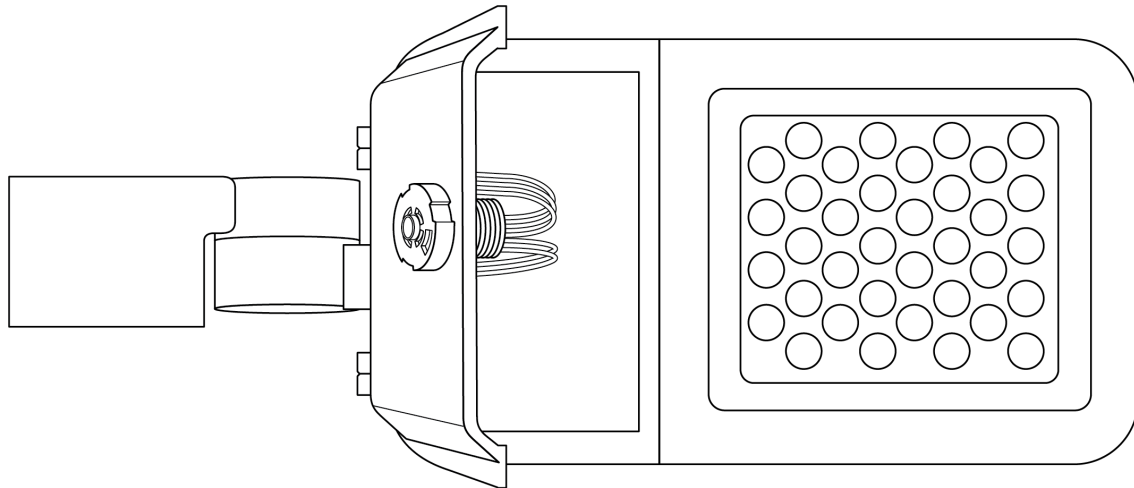
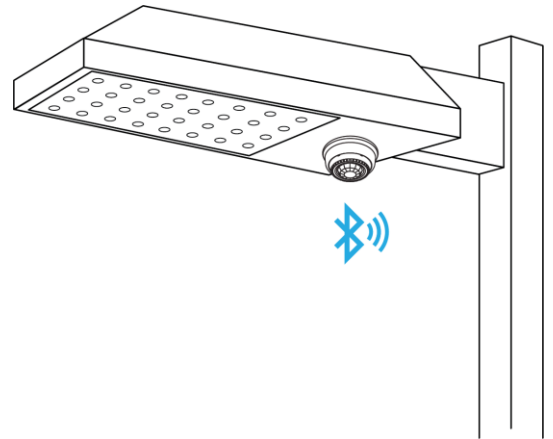
ZKV Receptacle on outside of fixture

Drawings Are Not To Scale



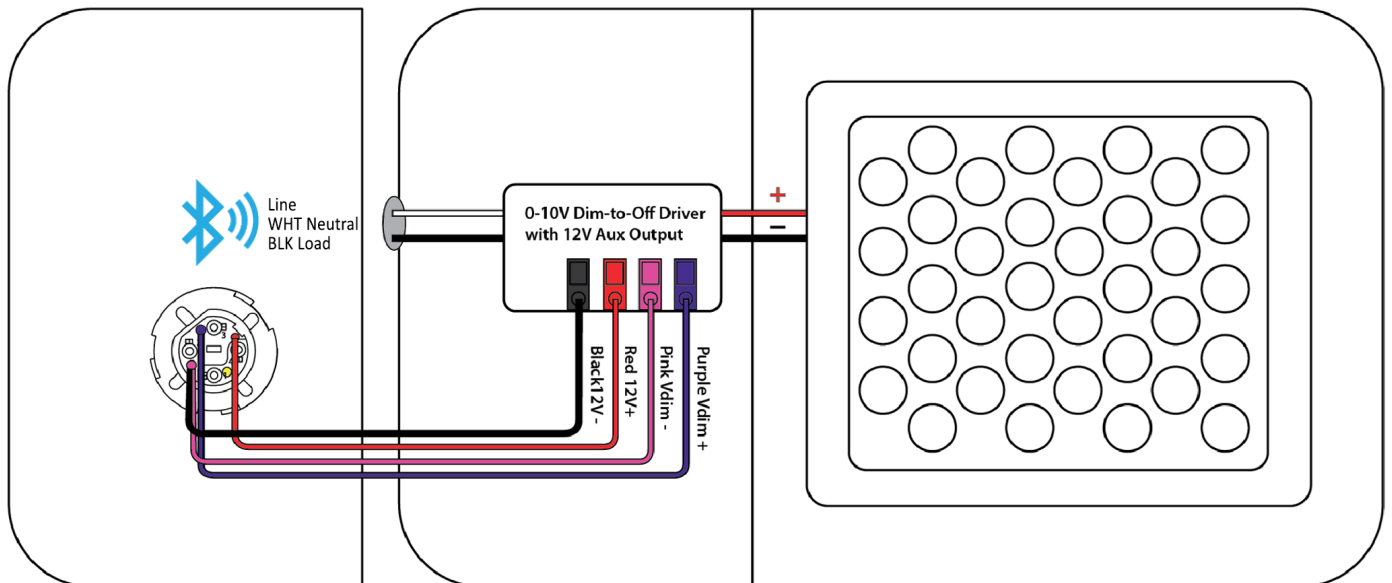
ZKV Receptacle with PP-250 power pack, and LED driver (open wiring compartment)

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



ZKV Receptacle on outside of fixture

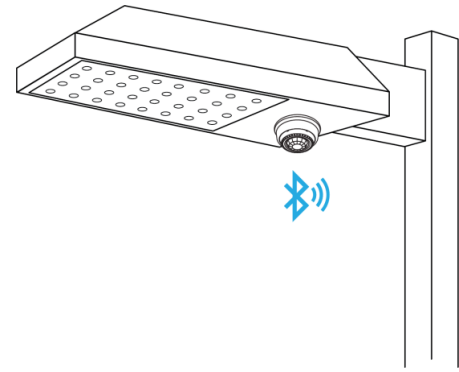
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ZKV Receptacle, 0-10V dim to off driver with 12v auxiliary output (wiring compartment open)

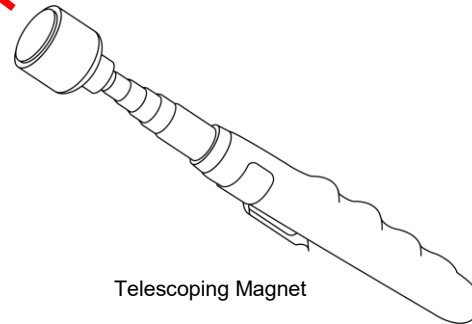
Reset Instructions

Using a magnet (with 20lb pull strength), hold the magnet against the dot labeled RST (reset).



Magnet

Once the fixture associated with the controller 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

Model Number Matrix

| PSC | ZKV | I | ___ | BLE | SR | ___ |
|-----|-----------------------------|------------------------------------|--|-----------------|------------------------------|--------------------|
| PSC | ZKV 0-10V Outdoor Device | I Passive Infrared (PIR) Sensor | 10N Low Bay Lens (no Photo Sensor) | BLE Wireless | SR TruBlu Mesh Compatible | BN Brown Finish |
| | | | 10H High Bay Lens (no Photo Sensor) | | | WT White Finish |
| | | | 11N Photo Sensor & Low Bay Lens | | | BK Black Finish |
| | | | 11H Photo Sensor & High Bay Lens | | | |

Example:

PSC-ZKV-I-11N-BLE-SR-BN

Design and specifications are subject to change without notice.