Wireless PIR Fixture Controller With Quick Connector

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 by12-24VDC
- 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

c(UL)us LISTED E341446   FC   CE   DLC QPL LISTED   Bluetooth®

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

| 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 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 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.
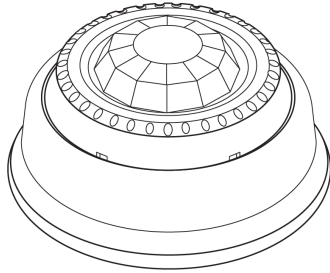
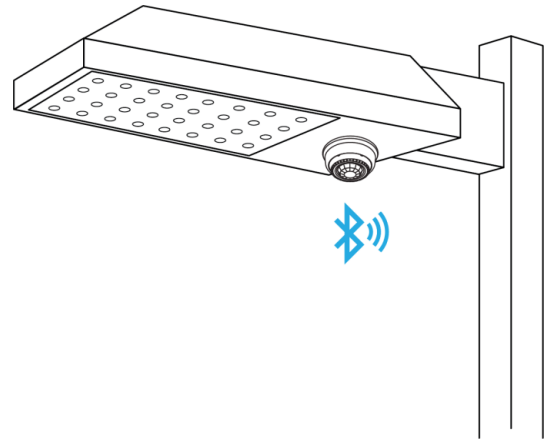| Project	
Location/Type	

Physical Dimensions
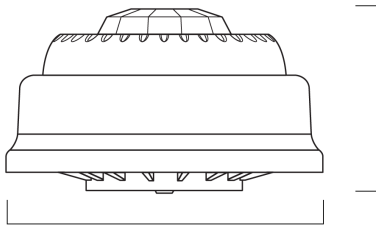
1.77"
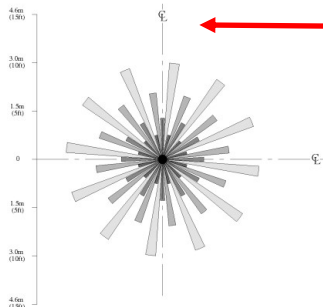(44.96mm)

3.10"
(78.74mm)

Drawing Are Not To Scale

Detection Area

Corresponding to
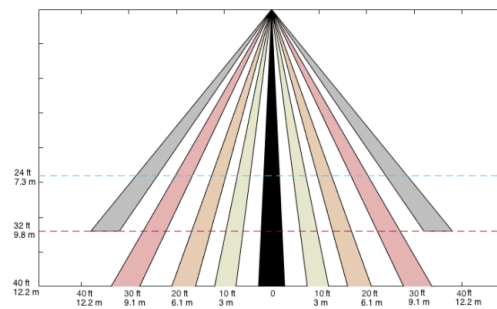the CL on Detection
Area Top View

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
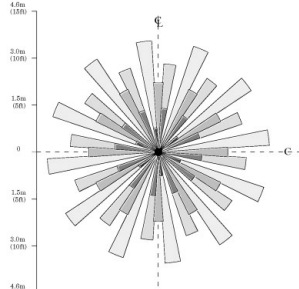at 20-40 ft (6.1-12.2 m).

LBL

HBL: High Bay Lens-Top View at 8 ft (2.4m)
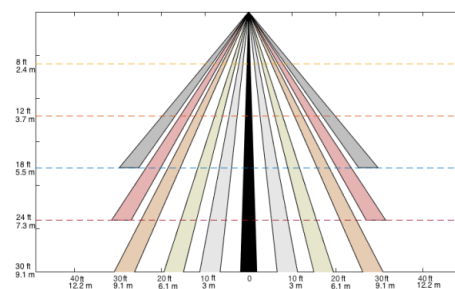
Corresponding to
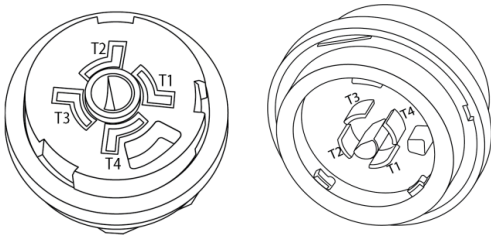the Arrow on
Gasketed Lens

HBL - Side View

LBL: Low Bay Lens-Top View at 8 ft

LBL - Side View

mW Connect

Installation Of Controller

The receptacle for ZKV controller is installed at fixture manufacturer and is shipped to job site with a protective cap.
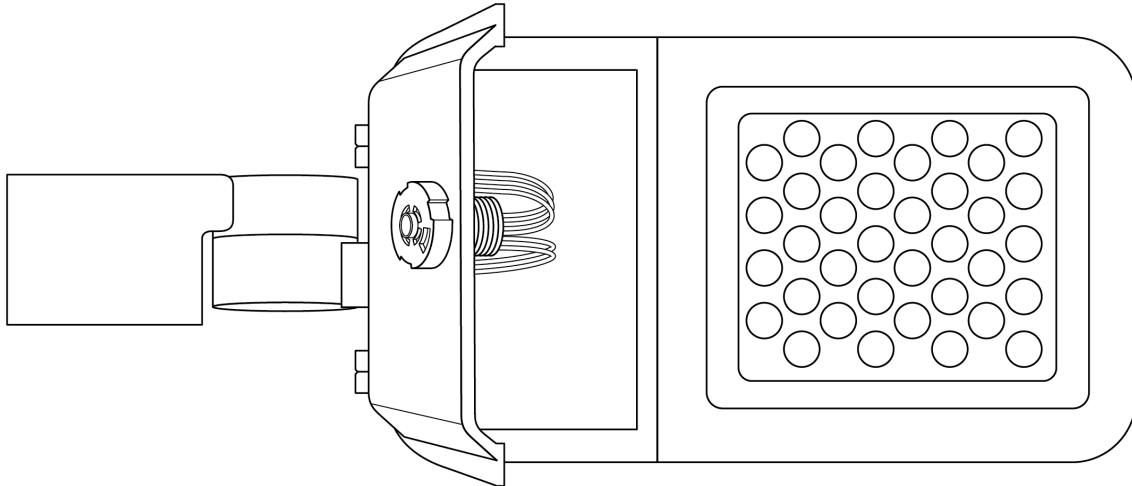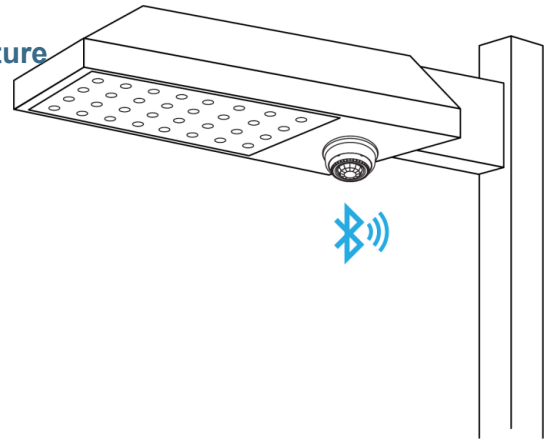
Tab/Slot	Designation	Notes
T1	12-24VDC+ Power To Controller	Red Wire (Receptacle)
T2	12-24VDC- Power And 0-10VDC-/Common	Black Wire (Receptacle)
T3	0-10VDC+ Control Signal From Controller	Purple (Violet) Wire (Receptacle)
T4	Vin-2.5V 30mA Load Control Output (Active High)	Yellow Wire (Receptacle)
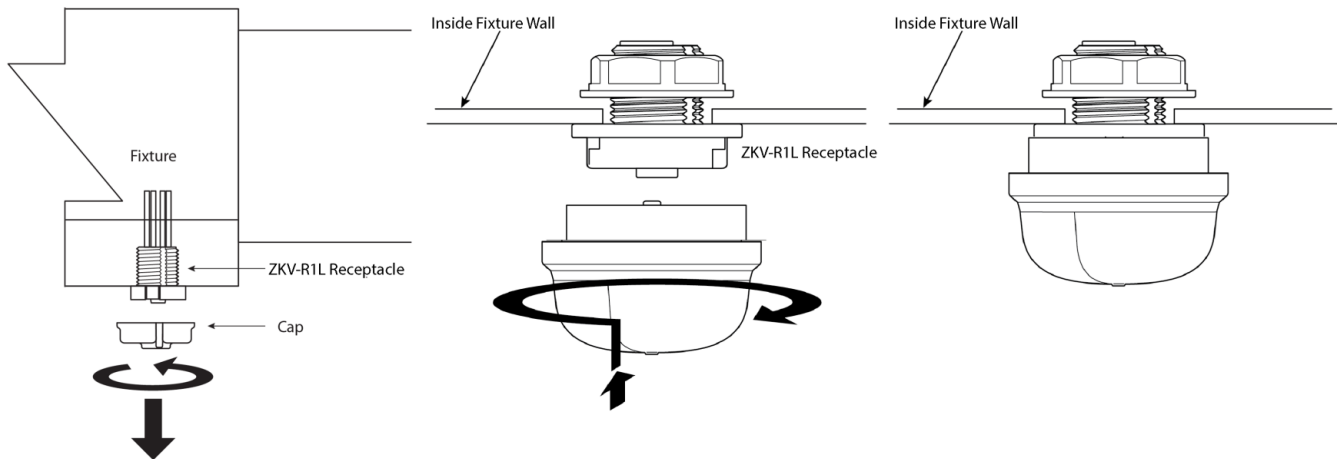
To install ZKV controller, first remove the protective cap on the ZKV-1RL receptacle by pushing up and rotating counterclockwise.
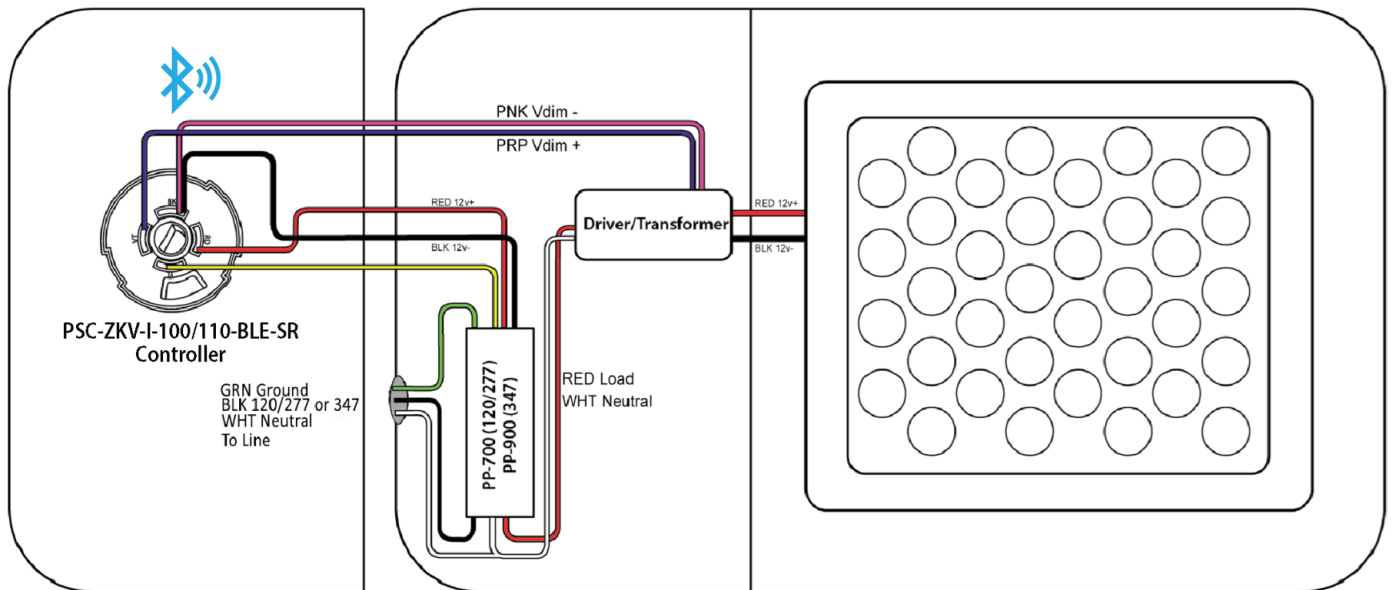
To install ZKV controller insert, push up and rotate to lock. No tools required. Luminaires can be easily and quickly upgraded.

mwConnect

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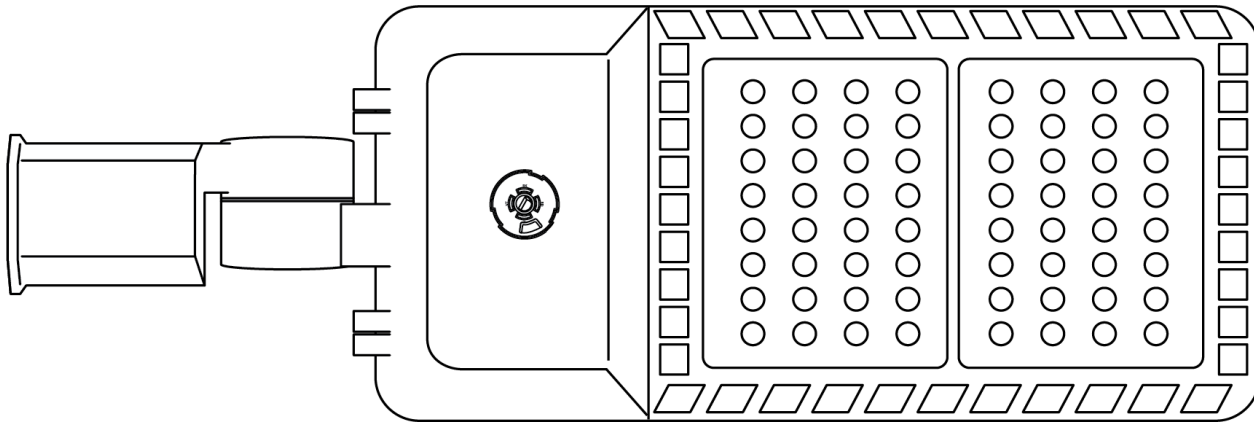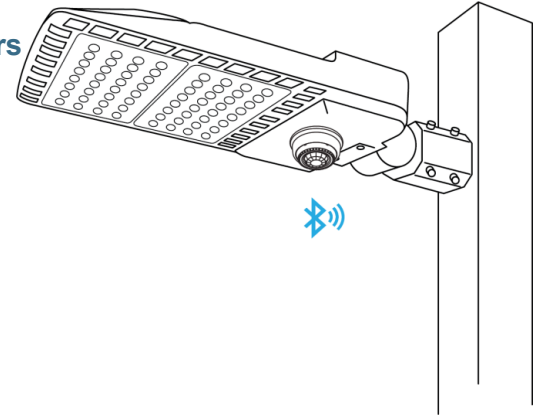**(mwConnect PSC-AC-PP-700 or PSC-AC-PP-900:) - Single Fixture**

ZKV Receptacle on outside of fixture

Drawings Are Not To Scale

PNK Vdim -

PRP Vdim +

RED 12v+

BLK 12v-

Driver/Transformer

RED 12v+

BLK 12v-

PSC-ZKV-I-100/110-BLE-SR
Controller

GRN Ground
BLK 120/277 or 347
WHT Neutral
To Line

PP-700 (120/277)
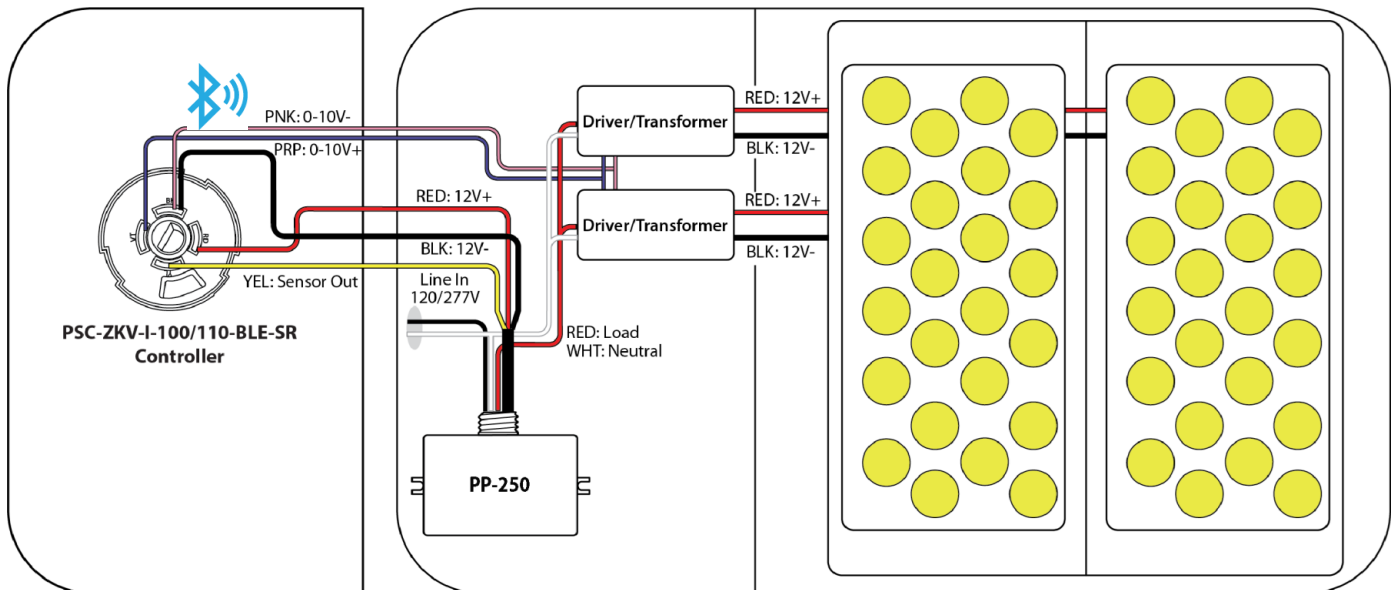PP-900 (347)

RED Load
WHT Neutral

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
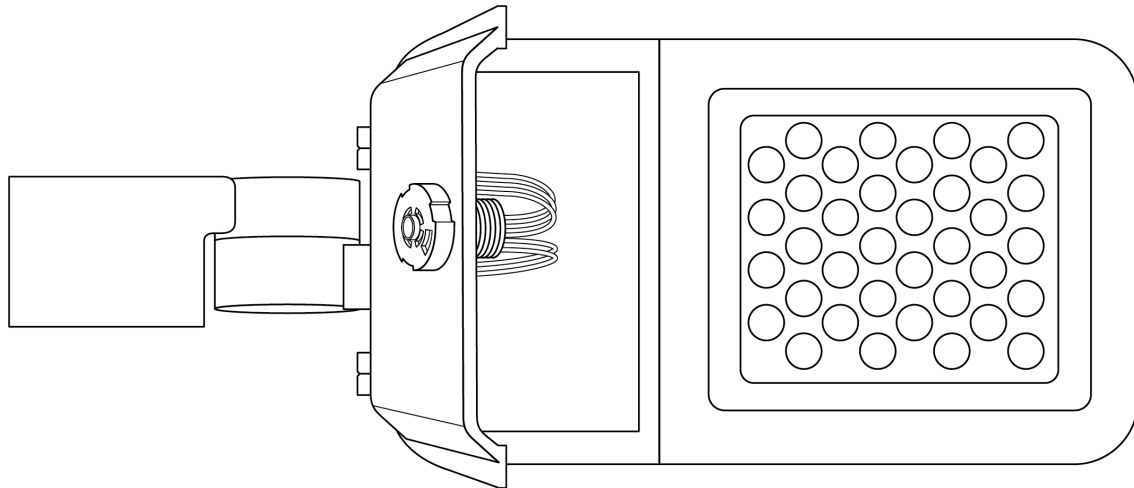
ZKV Receptacle on outside of fixture

Drawings Are Not To Scale

PNK: 0-10V-
PRP: 0-10V+
RED: 12V+
BLK: 12V-
YEL: Sensor Out
Line In 120/277V

PSC-ZKV-I-100/110-BLE-SR Controller

Driver/Transformer — RED: 12V+ / BLK: 12V-
Driver/Transformer — RED: 12V+ / BLK: 12V-
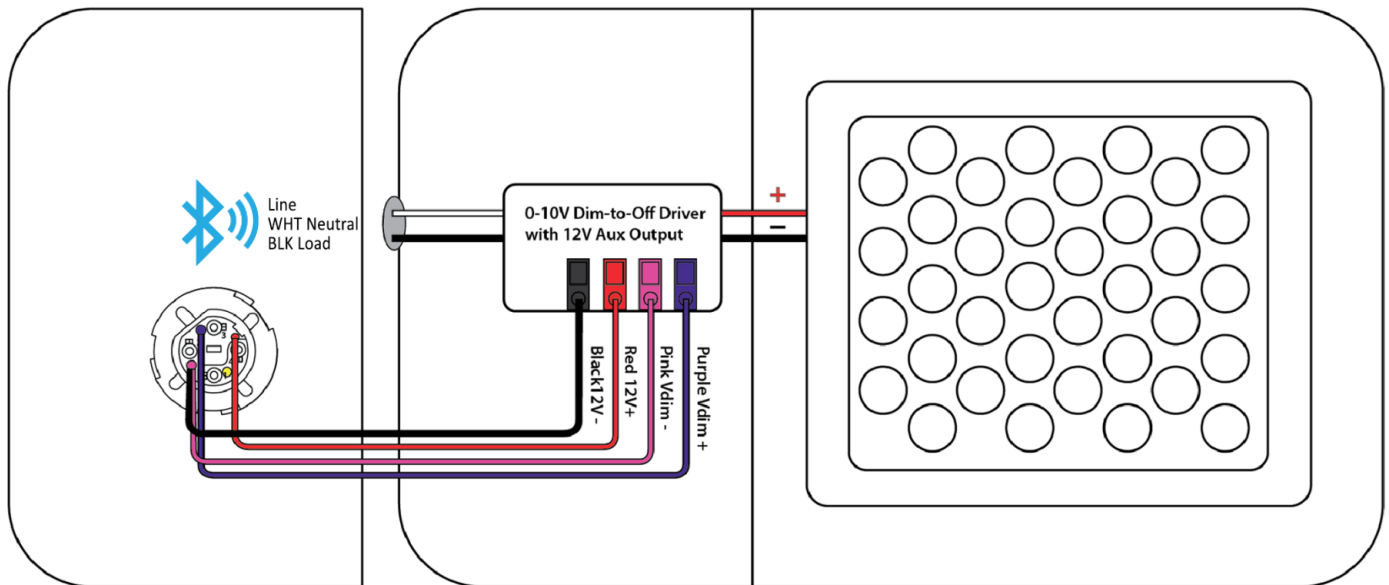
RED: Load
WHT: Neutral

PP-250

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
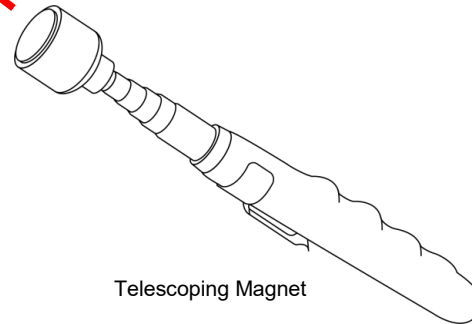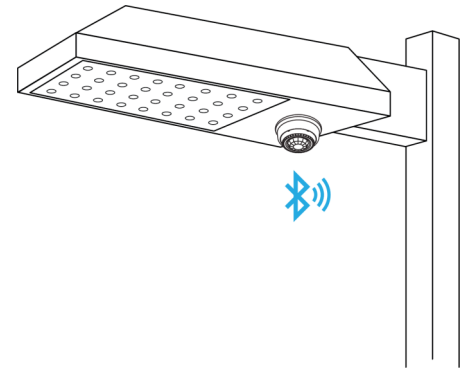
Drawings Are Not To Scale

0-10V Dim-to-Off Driver with 12V Aux Output

+
−

Line
WHT Neutral
BLK Load

Black 12V -
Red 12V+
Pink Vdim -
Purple Vdim +
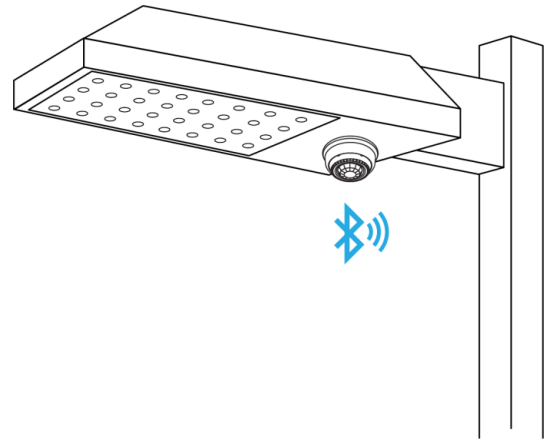
ZKV Receptacle, 0-10V dim to off driver with 12v auxiliary output
(wiring compartment open)

Reset Instructions

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

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.

Magnet

Telescoping Magnet

How To Order

Model No.	Description	Input Voltage	Output
PSC-ZKV-I-100-BLE-SR-BN	Fixture Controller with 0-10V Dimming, PIR Motion Sensor, Bluetooth Mesh in TruBlu™, standard Dark Brown Color, Silvair technology partner	12-24VDC	Control High 0-10V Dimming
PSC-ZKV-I-110-BLE-SR-BN	Fixture Controller with 0-10V Dimming, PIR Motion Sensor, Light Sensing, Bluetooth Mesh in TruBlu™, standard Dark Brown Color, Silvair technology partner	12-24VDC	Control High 0-10V Dimming
PSC-ZKV-I-100-BLE-SR-WT	Fixture Controller with 0-10V Dimming, PIR Motion Sensor, Bluetooth Mesh in TruBlu™, White Color, Silvair technology partner	12-24VDC	Control High 0-10V Dimming
PSC-ZKV-I-110-BLE-SR-WT	Fixture Controller with 0-10V Dimming, PIR Motion Sensor, Light Sensing, Bluetooth Mesh in TruBlu™, White Color , Silvair technology partner	12-24VDC	Control High 0-10V Dimming
PSC-ZKV-I-100-BLE-SR-BK	Fixture Controller with 0-10V Dimming, PIR Motion Sensor, Bluetooth Mesh in TruBlu™, Black Color, Silvair technology partner	12-24VDC	Control High 0-10V Dimming
PSC-ZKV-I-110-BLE-SR-BK	Fixture Controller with 0-10V Dimming, Light Sensing, Bluetooth Mesh in TruBlu™, Black Color, Silvair technology partner	12-24VDC	Control High 0-10V Dimming
PSC-ZKV-R1L	Receptacle for Fixture Controller	12-24VDC	

Design and specifications are subject to change without notice.