

TruBlu Mesh 0-10V Outdoor Controller with Long Range Antenna

Overview

- Single Channel Controller with 0-10VDC Dimming Output
- Integral Long Range Antenna
- Mounts to Light Fixture/Luminaire via Quick Connect Receptacle
- Compatible with Bluetooth® SIG Mesh Systems
- Features High End Trim Adjustment, Zoning & Continuous Dimming
- Sensor/Control Output (Active High) for Relay/Load Control
- Powered by 12 to 24 VDC
- IP65 Rated for Outdoor or Indoor Applications
- Quick Connector For Easy Installation
- Conforms with DLC NLC5 Cybersecurity



For Indoor or Outdoor use



Applications

The PSC-ZKV-WCM-100-BLE-SR/EXA is a single channel wireless fixture controller with a long range antenna. The controller features an active high output for relay or load control.

The controller is IP65 rated for exterior use and suitable for a variety of indoor and outdoor applications in temperatures ranging from -22° to 158°F (-30° to 70° C).

This device is controlled wirelessly via Bluetooth® SIG Mesh technology allowing for wireless dimming of LED lighting. The compact size allows for seamless integration to the fixture.

Accessories

Power Pack: The PSC-ZKV-WCM-100-BLE-SR/EXA operates on 12 to 24 VDC input. See the mwConnect PacWave™ Power Pack products for low voltage power supply options.

Alternatively, the controller can also operate with a driver that has auxiliary output (12 to 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).

Single Channel: The controller outputs a 0-10V dimming channel for driver control.

Relay Control: The controller outputs a 10-22VDC active high control signal to control a relay or other load circuitry.

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

See the TruBlu™ Commissioning User Manual for more information.

Summary

Product Type:
Single Channel Wireless Fixture Controller with Long Range Antenna

Input Voltage | Current Consumption:
12 to 24 VDC | 100 mA

0-10V Dimming Output: 30 mA

Load Control Output: 10 to 22 VDC 30mA
Source Control Signal (Active High)

Mounting: Mounts to mwConnect PSC-ZKV-R1L receptacle, sold separately

Max Bluetooth Range¹:
1200 feet (366 meters)

Operating Temperature:
-22°F to 158°F (-30°C to 70°C)

Storage Temperature:
-40°F to 185°F (-40°C to 85°C)

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

Color: Clear/Transparent Housing

Warranty: 5 years

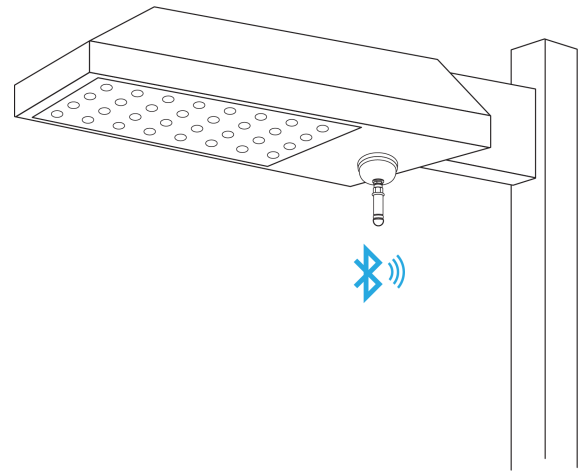
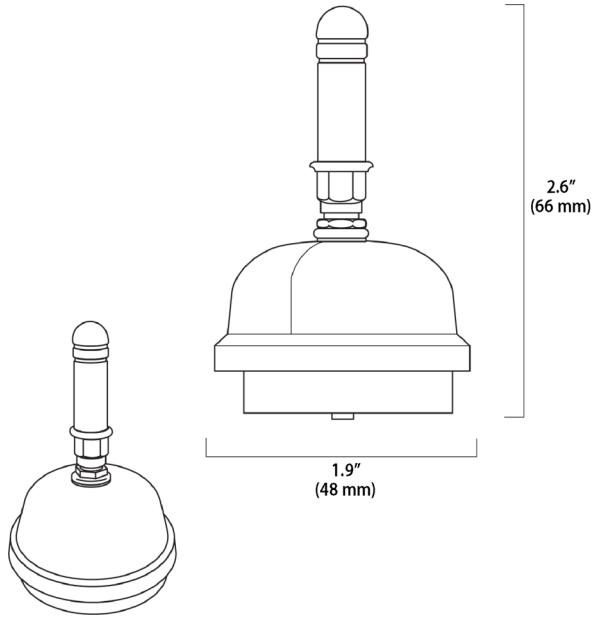
Note:

1. Bluetooth Range is highly dependent on the integration of fixtures, surrounding environment and conditions. It is recommended to conduct testing for Bluetooth range accuracy.

Project

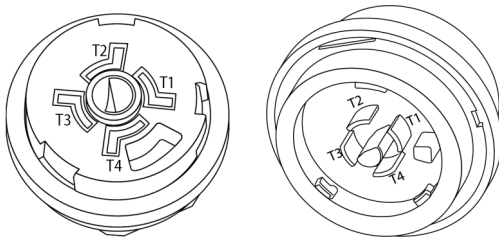
Location/Type

Physical Dimensions



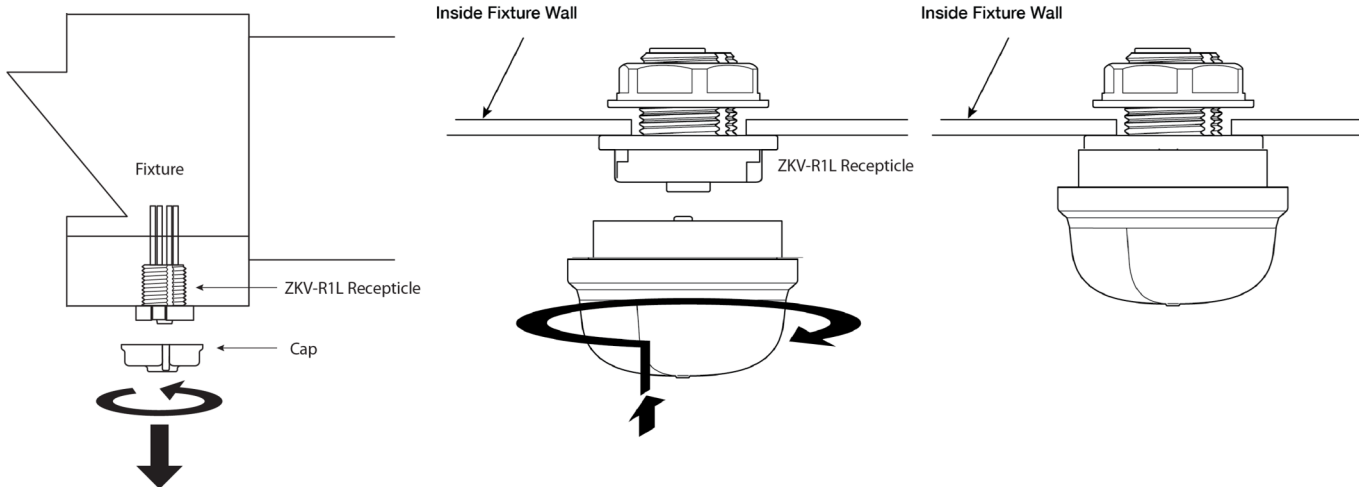
Drawings are not to scale

Installation Of Controller



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	10-22VDC Load Control Output (Active High)	Yellow Wire (Receptacle)

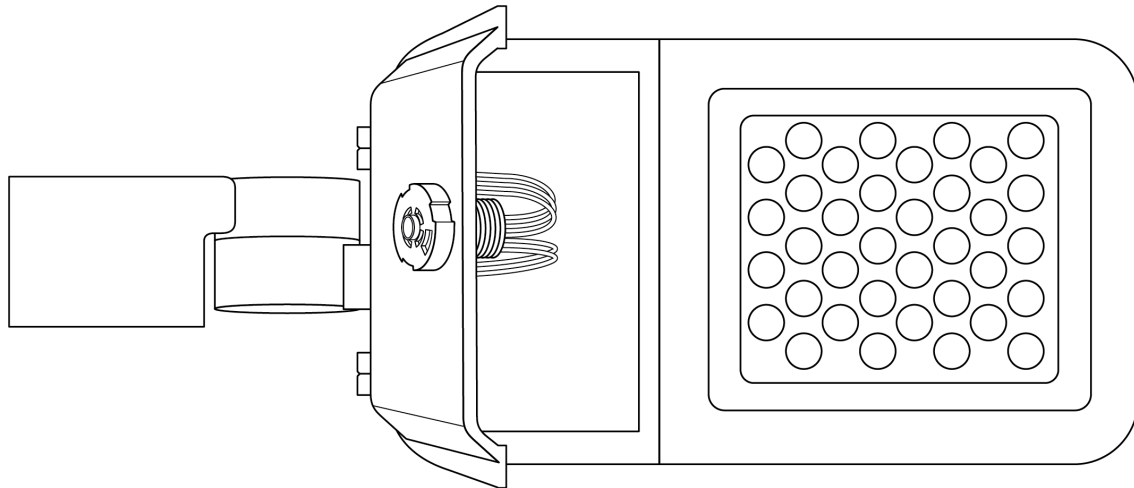
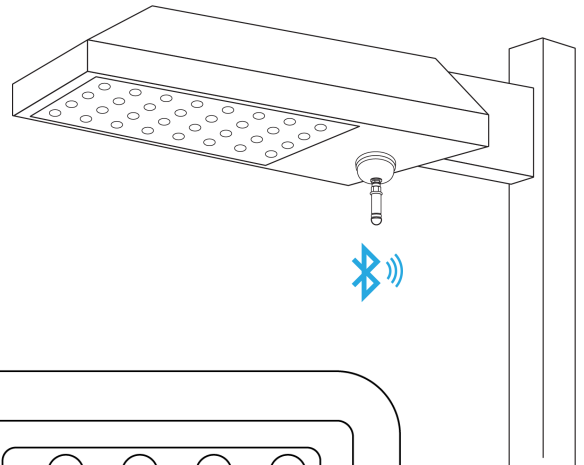
The receptacle for ZKV controller is installed at fixture manufacturer and is shipped to job site with a protective cap.



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

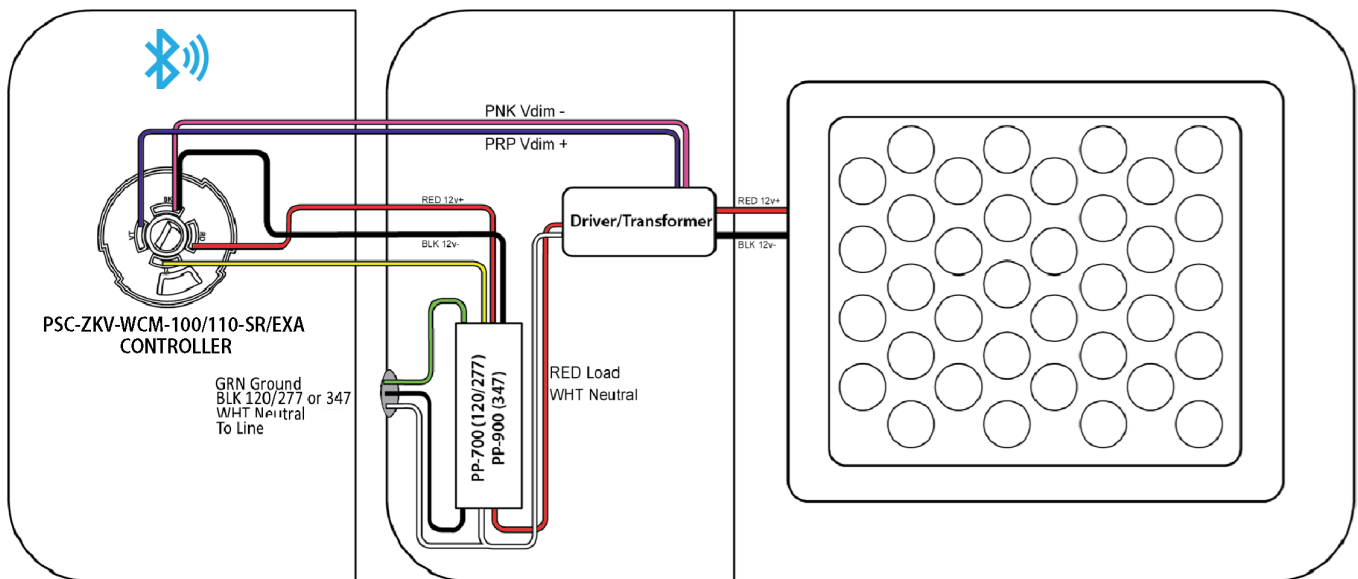
To install the ZKV controller insert, push up and rotate to lock. No tools required. Luminaires can be easily and quickly upgraded..

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



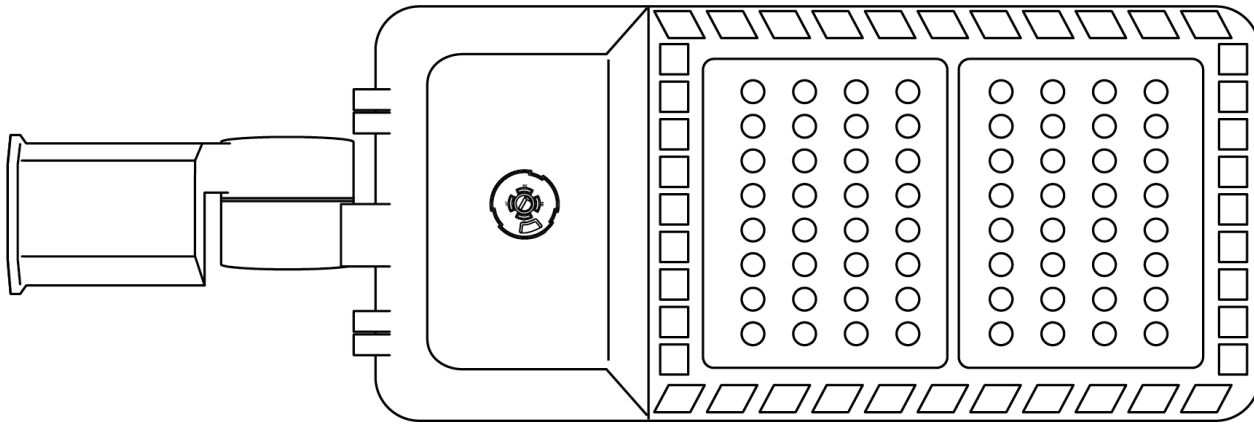
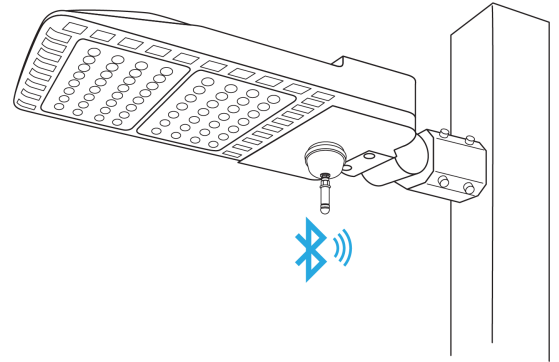
ZKV-R1L receptacle on outside of fixture

Drawings are not to scale



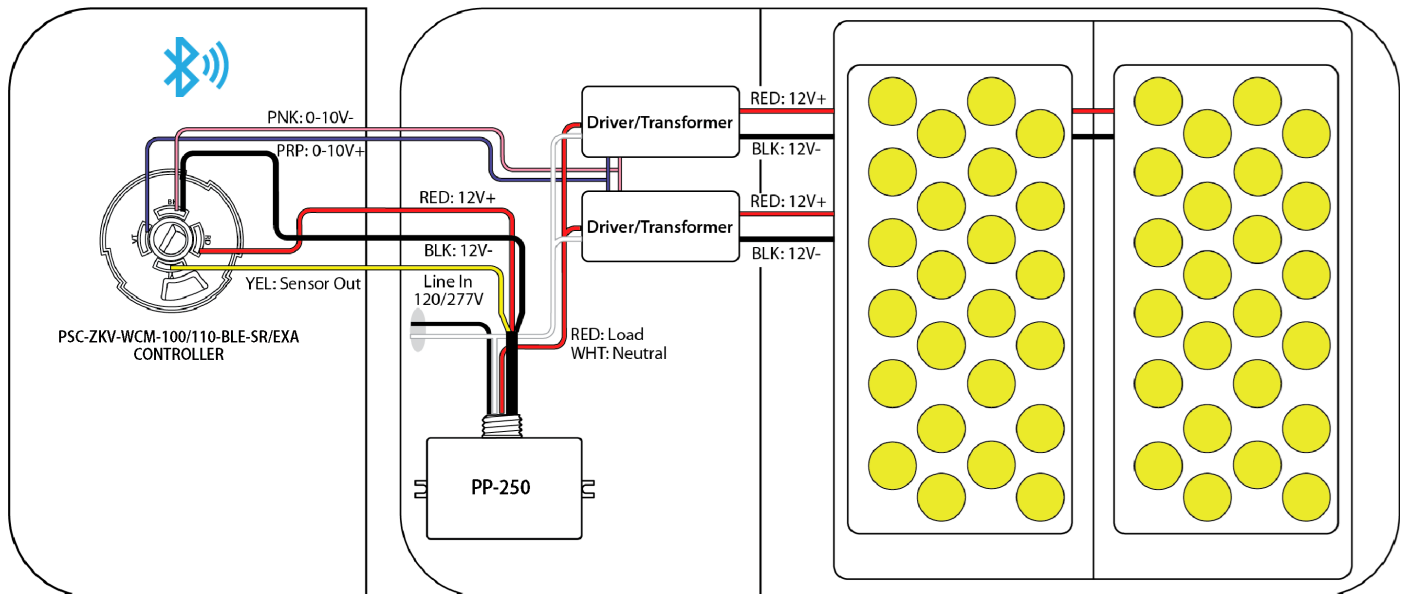
ZKV-R1L receptacle with PP-700 power pack, and LED dimmable driver

Example Application: Controller Installed With Power Pack
(mwConnect PSC-AC-PP-250) Single Fixture With Multiple Drivers



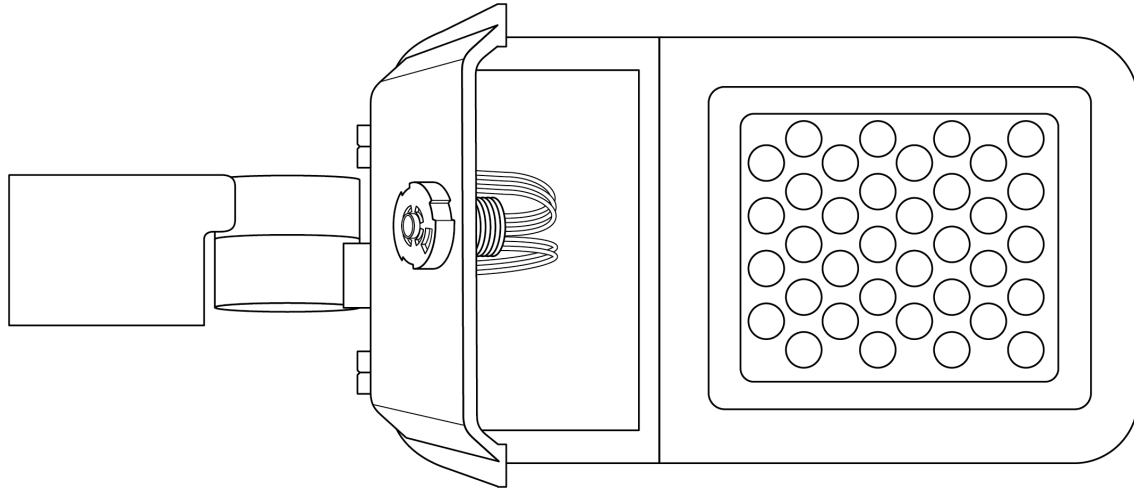
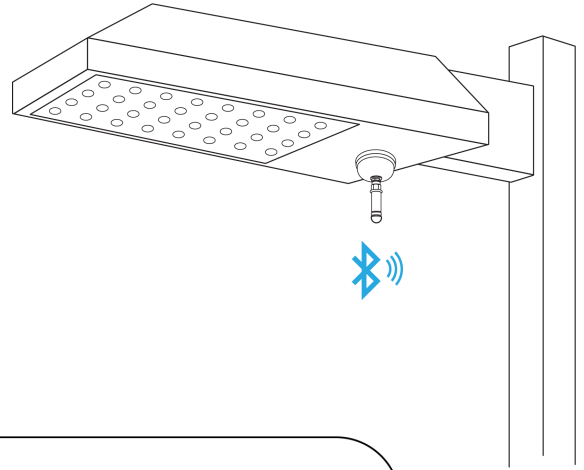
ZKV-R1L Receptacle on outside of fixture

Drawings are not to scale



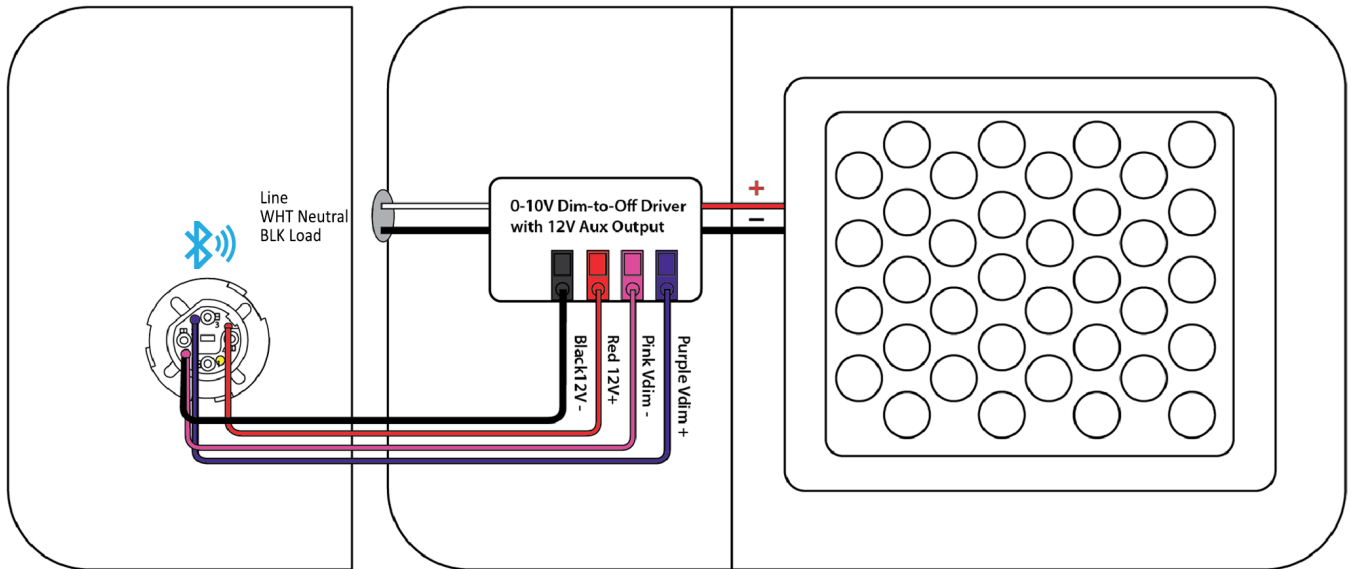
ZKV-R1L Receptacle with PP-250 power pack, and LED dimmable driver
(open wiring compartment)

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



ZKV-R1L Receptacle on outside of fixture

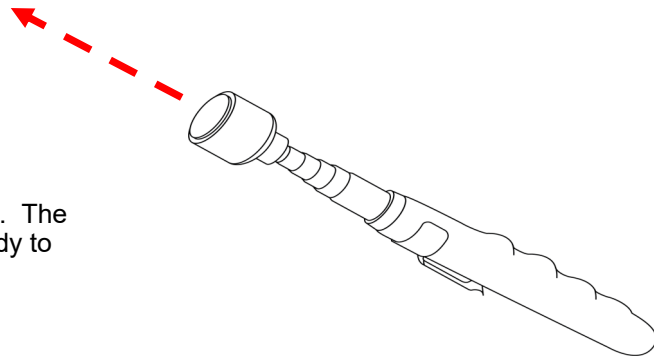
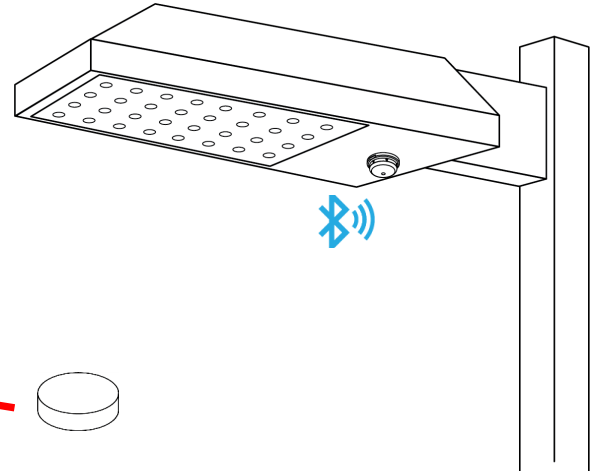
Drawings are not to scale



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

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

How To Order

Model No.	Description	Input Voltage	Output
PSC-ZKV-WCM-100-BLE-SR/EXA	Fixture Controller With 0-10V Dimming, Long Range Antenna, TruBlu™ Mesh, Clear Housing, Silvair Technology Partner	12-24VDC	Load Control 0-10V Dimming
PSC-ZKV-R1L	Receptacle for Fixture Controller	12-24VDC	

For Line to Low Voltage Power Supply/Controller, please see mwConnect PacWave™ Power Pack data sheets
Design and specifications are subject to change without notice.