

Project		Catalog #		Type	
Prepared by		Notes		Date	



Greengate

OSW/VSW-D 0-10V Dual Tech Sensor Dimmer

3-in-1 Solution that combines functionality of a switchpack, a sensor and a 0-10V dimmer into one wallbox device

Typical Applications

Private Offices • Restrooms • Closets • Copy Rooms • Small enclosed spaces

Interactive Menu

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Product Certification



- Meets ASHRAE Standard 90.1 requirements
- Meets CEC Title 24 requirements

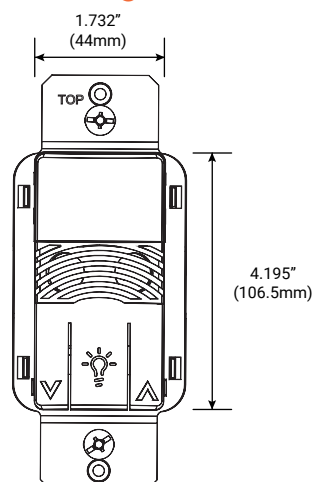
Product Features



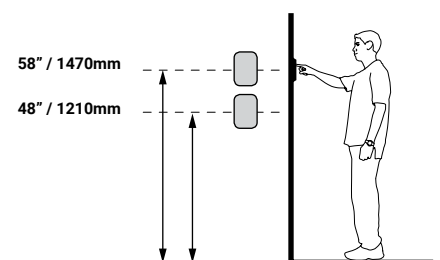
Top Product Features

- Compatible with dimmable 0-10V LED and FLR ballasts
- Dual Technology Passive Infrared and Ultrasonic sensor technology
- Fully adjustable Auto ON/Manual ON light level settings
- Provides 180 degree field of view with 900 sq. ft. of major and 324 sq. ft. of minor motion coverage
- Selectable time delay of 15 seconds (Test mode), 5 minutes, 10 minutes, 15 minutes, 20 minutes (factory default), 30 minutes

Dimensional and Mounting Details



Scale or Mounting Height



additional product diagrams

Order Information

SAMPLE ORDER NUMBER: **OSW-D-010-W**

One single gang wallplate included

Catalog Number

Catalog Number	Description	Compatible Lamp Types	Ratings Watt	Ratings V/AC	Color
OSW-D-010-* (*-W, V, LA, G, B, R)	0-10V Dual Tech Sensor Dimmer - Occupancy with LED Single pole/3-Way preset	0-10VDC LED/FLR	960 2200	120 277	W=White, V=Ivory, LV=Light Almond, G=Gray, B=Black, R=Red
VSW-D-010-* (*-W, V, LA, G, B, R)	0-10V Dual Tech Sensor Dimmer - Vacancy with LED Single pole/3-Way preset	0-10VDC LED/FLR	960 2200	120 277	W=White, V=Ivory, LV=Light Almond, G=Gray, B=Black, R=Red
Note Not all colors are available in stock and some color options may have extended lead times.					

Product Specifications

Key Features

- Compatible with dimmable 0-10V LED and FLR ballasts
- Fully adjustable Auto ON/Manual ON light level settings
- Adjustable high-end and low-end trim setting
- Push pad design provides minimal travel and crisp actuation
- Digital circuitry provides aesthetically pleasing soft ON/fade OFF
- No leakage to load in OFF mode
- Integrated photocell for daylighting
- Zero crossing for long relay life

Technology

- 0-10V Dual Tech Sensor Dimmer
- Dual Technology Passive Infrared and Ultrasonic sensor technology
- Ultrasonic Frequency: 40 kHz

Mechanical

Mounting Plate/Strap Dimensions: 4.19" H x 1.73" W (106.55mm x 44mm)

Product Housing Dimensions: 2.7" H x 1.73" W x 2.19"D (68.5mm x 43.9mm x 55.62mm)

Environment:

- Operating temperature:** 32°F to 104°F (0°C to 40°C)
- Relative humidity operating:** 20% to 90% non-condensing
- For indoor use only

Housing: Durable, polycarbonate decorator housing with gloss finish

Mounting: Fits in a standard 3.5" deep back box

Electrical

- Neutral is required for installation of device

Wiring type:

- Single pole and 3-way
- 8" pre-stripped wire leads,
- #16 AWG for Load and GND wires
- #18 AWG for all other wires

Electrical ratings: 8A 120/277VAC @ 60Hz (LED)

Light Intensity Control: Full-range, continuously variable dimming

Class 2 dimming output section: 0-10 VDC, 80mA maximum current sink. 0-10V output supports up to 40 ballasts/ drivers that draw the standard 2mA each

Surge Protection: Meets ANSI/IEEE Std. C62.41, tested to withstand voltage surges up to 6000V and current surges of up to 3000A

Radio Frequency Interference: Designed to reduce interference with radio, audio and video equipment 0-10VDC FLR and LED ballasts

Voltage Ratings: Permanently marked on device label

Flammability: Meets UL 94 requirements; V2 rated

Hardware Specifications

Status Indicators: LED Indicators to indicate motion

LED indicators

- Red LED = PIR detection
- Green LED = Ultrasonic detection

Controls and Performance

Selectable Time delays:

- 15 seconds (Test mode)
- 5 minutes, 10 minutes, 15 minutes, 20 minutes (factory default), 30 minutes

Coverage:

- Provides 180 degree field of view with 900 sq. ft. of major and 324 sq. ft. of minor motion coverage

Occupancy Sensor:

- Occupancy Sensor version allows operations to toggle between Auto ON/Auto OFF or Manual ON/Auto OFF mode
- Occupancy Sensor version provides a selectable ambient light override preventing lights from switching ON when there is acceptable natural light

Dimming control:

- Full-range preset dimming control provided with horizontal dim/bright bar

Standards/Ratings

- cULus Listed to UL1472, file no. E325082
- FCC Part 15 Class A
- Meets ASHRAE Standard 90.1 requirements
- Meets CEC Title 24 requirements
- California Title 20 Compliant

Warning

- This product is not intended to be used in applications involving the use of ammonia-based or VOC cleaners.
- Use of ammonia-based or VOC cleaners on this device must be avoided. Prolonged use may cause loss of integrity and expose electrified components. If this occurs, turn OFF power to the unit and replace.
- For detailed cleaning guidelines please refer to: Controls Care and Maintenance instructions at the end of this document.

Warranty

Five year warranty standard

Overview

Cooper Lighting Solutions' 0-10V Dual Tech Sensor Dimmer is a 3 in 1 solution that combines functionality of a switchpack, a sensor and a 0-10V dimmer into one wallbox device to help customers save labor costs as well as meet the latest energy codes and standards. Cooper Lighting Solutions' 0-10V Dual Tech Sensor Dimmer solution offers a convenient and cost effective way for users to satisfy commercial energy codes like ASHRAE 90.1 and California Title 20 that require designs that enable energy savings for Commercial facilities. Some of the requirements that can be met by a solution incorporating this device include Area Control, Automatic Lighting Shutoff, Manual ON or Partial ON (ASHRAE 90.1 only), Multi-level Lighting Control and Occupancy Sensor Control. This product can be used in Single-pole (one location) as well as 3-Way (multi-location) applications and is aesthetically compatible with Cooper Lighting Solutions' decorator style devices and wallplates. This device also allows isolation of its relay for occupancy based control of external power packs. There is an adjustable Auto ON/Manual ON light level setting, so the lights will only initially turn ON to a user defined setting.

Daylight Switching Operation

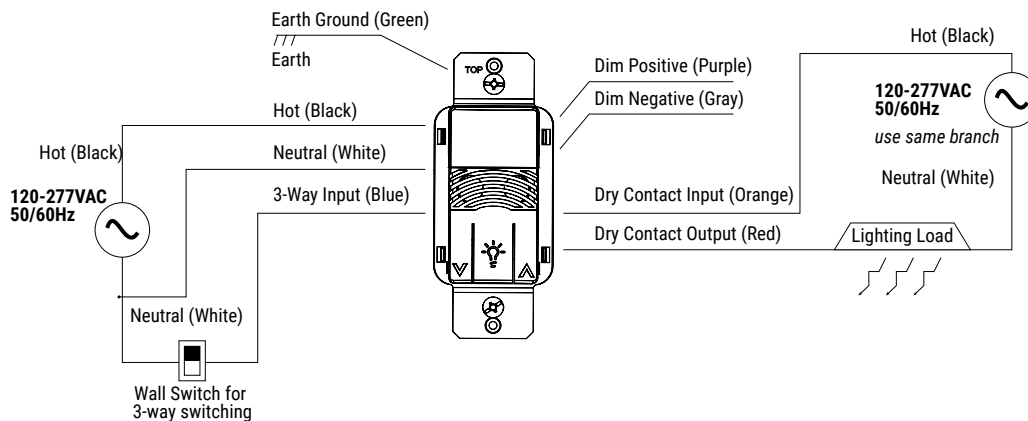
In Open-Loop Daylight Switching the daylight sensor measures the natural light contribution in order to automatically adjust lighting. The sensor switches the light off if enough ambient light is present and it switches the light on if there is not enough ambient light in the space.

Open-Loop Daylight Dimming Operation

In Open-Loop Daylight Dimming the daylight sensor measures the natural light contribution in order to automatically adjust lighting.

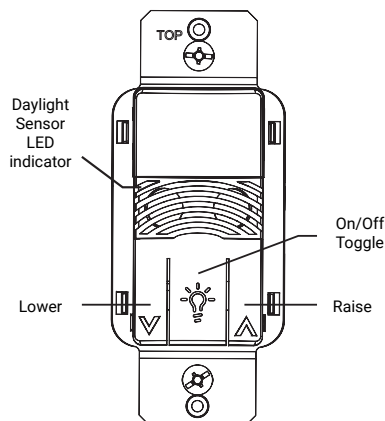
Wiring Diagrams

Single-Pole Wiring Diagram FLR, LED

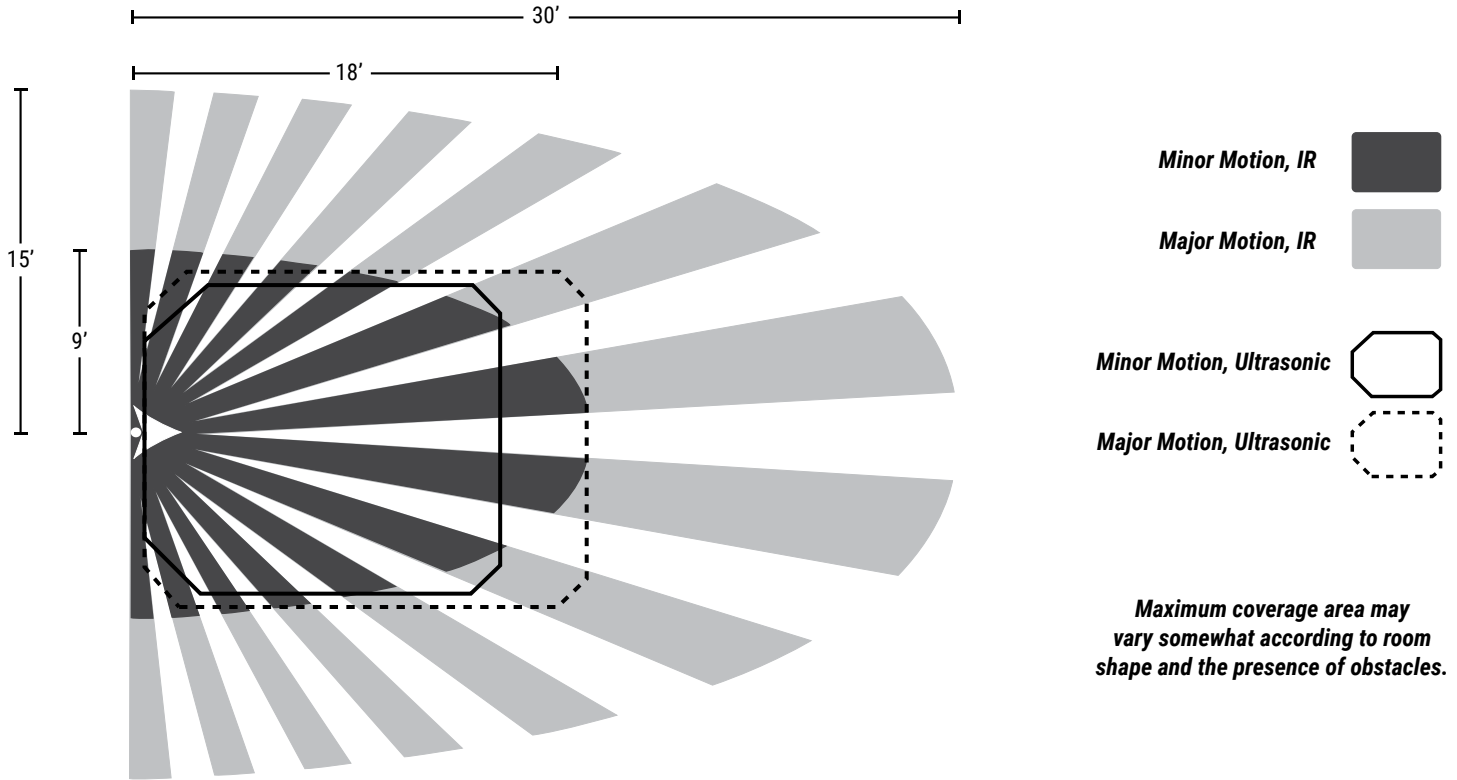


Wiring Diagram 1:
Typical Wiring Diagram
(Simple 3-way Switch)
Scene Dimming Allowed

Controls



Field of View



Tested to NEMA WD 7-2011



Control Systems

- Greengate



Cooper Lighting Solutions has developed recommended guidelines for cleaning our products that will not impact the operation or finish of the product.

Recommended cleaning tips:

- **Never spray any fluids directly into the device.**
- **Use of ammonia-based or VOC cleaners on this device must be avoided.** Prolonged use may cause loss of integrity and expose electrified components. If this occurs, turn OFF power to the unit and replace.
- **Use a damp rag or single-use wipe** to avoid excess liquid penetrating the device.
- Be sure to wipe up remaining excess liquid after cleaning.
- Ensure the cleaning agent used does not have harsh chemicals such as bleach, ammonia, highly alkaline or concentrated acids (such as hydrochloric acid that can be found in household cleaners such as toilet bowl cleaners, bathroom tile and porcelain cleaners) as they could damage the device, causing them to become brittle and discolored.
- Cooper Lighting Solutions recommends the use of a mild liquid detergent and water to clean the devices. Single use wipes (e.g. Lysol brand or equivalent) are acceptable to use for cleaning the devices, however the single-use wipes **cannot contain bleach, ammonia, highly alkaline or concentrated acids.**

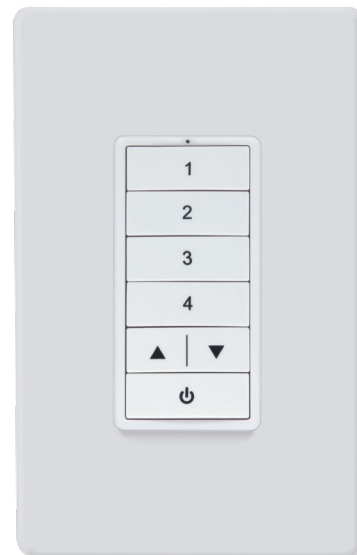


image for
reference only



WARNING

This product is not intended for use in applications involving the use of ammonia-based or VOC cleaners.

Prolonged use may cause loss of integrity and expose electrified components.

If this occurs, turn OFF power to the unit and replace.

Recommended cleaning instructions:

- **Never spray any fluids directly into the device.**
- Apply the mild liquid detergent to a damp cloth or paper towel. Single use wipes (e.g. Lysol brand or equivalent) are acceptable to use for cleaning the devices, however single-use wipes cannot contain bleach, ammonia, highly alkaline or concentrated acids.
- If excess liquid is present, remove by wringing out the cloth or paper towel to avoid liquid penetration into the device.
- Clean the Cooper Lighting Solutions device by wiping over the surface with the damp cloth.
- Remove an excess liquid remaining on the device with a dry cloth or paper towel.