Project		Catalog #		Type	
Prepared by		Notes		Date	



OSW-D-010 / VSW-D-010

Greengate

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

- Order Information page 2
- Additional Resources page3
- Wiring Diagrams page 3
- Product Warranty

Product Certification

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

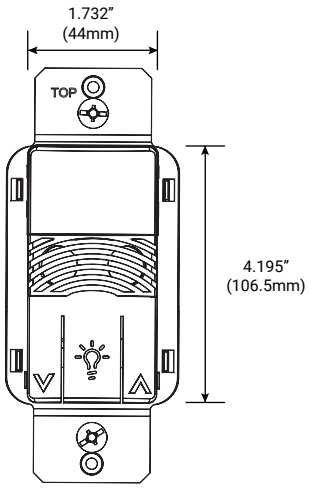
Product Features

PIR Activated · Ultrasonic Activated · Self-Adjusting · California Title 20 Compliant

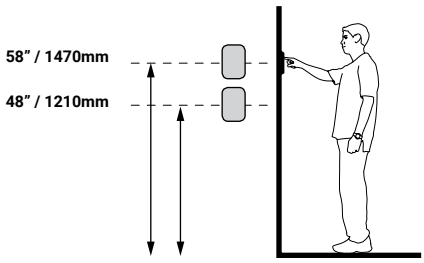
Top Product Features

- 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

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

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. Eaton's 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 Eaton's 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

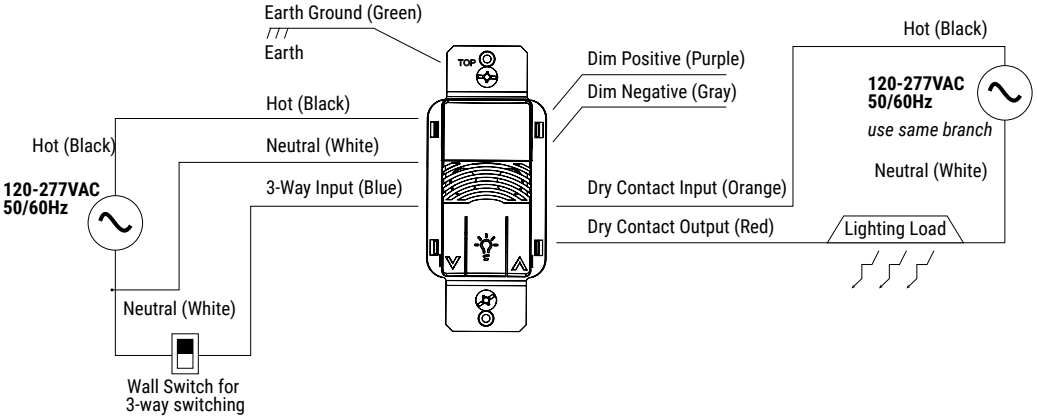
In Open-Loop Daylight Switching the daylight sensor measures the natural light contribution in order to automatically adjust lighting. The sensor switches the light off if enough ambient light is present and it switches the light on if there is not enough ambient light in the space.

Open-Loop Daylight Dimming Operation

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

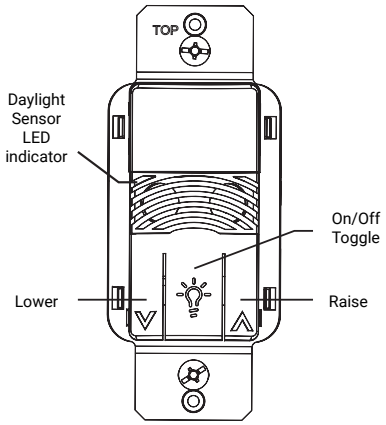
Wiring Diagrams

Single-Pole Wiring Diagram FLR, LED

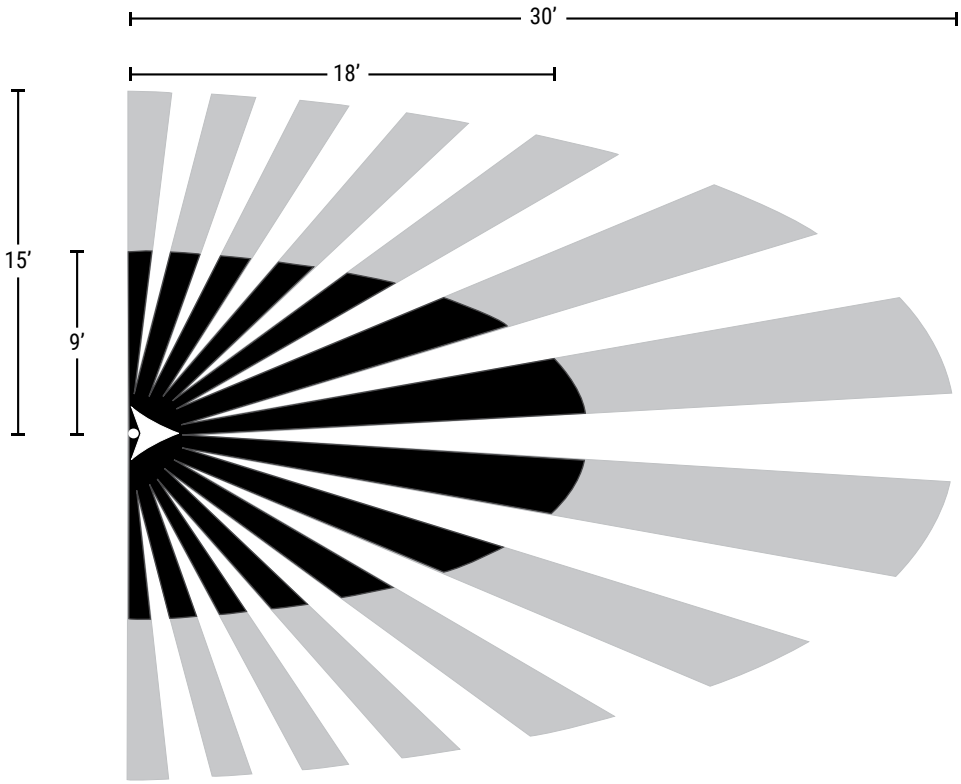


Wiring Diagram 1:
Typical Wiring Diagram
(Simple 3-way Switch)
Scene Dimming Allowed

Controls



Field of View



Minor Motion, IR

Major Motion, IR

Maximum coverage area may vary somewhat according to room shape and the presence of obstacles

Tested to NEMA WD 7-2011

Control Systems

- Greengate

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Specifications and dimensions subject to change without notice.