

0-10V Dual Tech Sensor Dimmer

Catalog#	Prepared by
Project	Date
Comments	Type



OSW-D-010

VSW-D-010

Overview

Eaton's 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.

Features

- Compatible with dimmable 0-10V LED and FLR ballasts
- Dual Technology Passive Infrared and Ultrasonic sensor technology
- 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
- Full-range preset dimming control provided with horizontal dim/bright bar
- Adjustable high-end and low-end trim setting
- Dual color LED motion indicators: Red LED indicates PIR motion, Green LED indicates Ultrasonic
- Push pad design provides minimal travel and crisp actuation
- Digital circuitry provides aesthetically pleasing soft ON/fade OFF
- 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
- Meets California Title 20 requirements - Title 24 / ASHRAE 90.1
- No leakage to load in OFF mode
- Easily configurable to suit specific applications
- Neutral is required for installation of device
- Integrated photocell for daylighting
- Zero crossing for long relay life

Applications

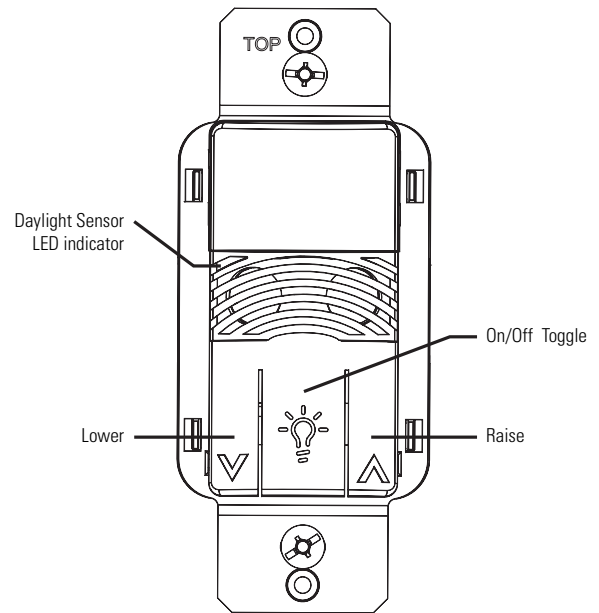
- Private Offices
- Restrooms
- Closets
- Copy-rooms
- Small enclosed spaces



Powering Business Worldwide

Specifications

Technology	0-10V Dual Tech Sensor Dimmer Passive Infrared (PIR) and Ultrasonic (US) Single pole and 3-way
Wiring type	8" pre-stripped wire leads, #16 AWG for Load and GND wires #18 AWG for all other wires
Electrical Specifications	<p>Rating: 8A 120/277VAC @ 60Hz (LED)</p> <p>Light Intensity Control: Full-range, continuously variable dimming</p> <p>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</p> <p>Surge Protection: Meets ANSI/IEEE Std. C62.41, tested to withstand voltage surges up to 6000V and current surges of up to 3000A</p> <p>Radio Frequency Interference: Designed to reduce interference with radio, audio and video equipment</p> <p>0-10VDC FLR and LED ballasts</p>
Mechanical Specifications	<p>Mounting: 3-1/2" deep wall box</p> <p>Wiring Types: Single pole and 3-way</p> <p>LED Indicators: To indicate motion</p> <p>Voltage Ratings: Permanently marked on device label</p>
Environmental Specifications	<p>Temperature: 0°C to 40°C (32°F to 104°F)</p> <p>Flammability: Meets UL 94 requirements; V2 rated</p> <p>For indoor use only</p>
Housing	Durable, polycarbonate decorator housing with gloss finish
Size	<p>Mounting Plate/Strap Dimensions: 4.19"H x 1.73"W (106.55mm x 44mm)</p> <p>Product Housing Dimensions: 2.7"H x 1.73"W x 2.19"D (68.5mm x 43.9mm x 55.62mm)</p>
Standards	<p>cULus Listed to UL1472, file no. E325082</p> <p>FCC Part 15 Class A</p> <p>California Title 20 Compliant</p>



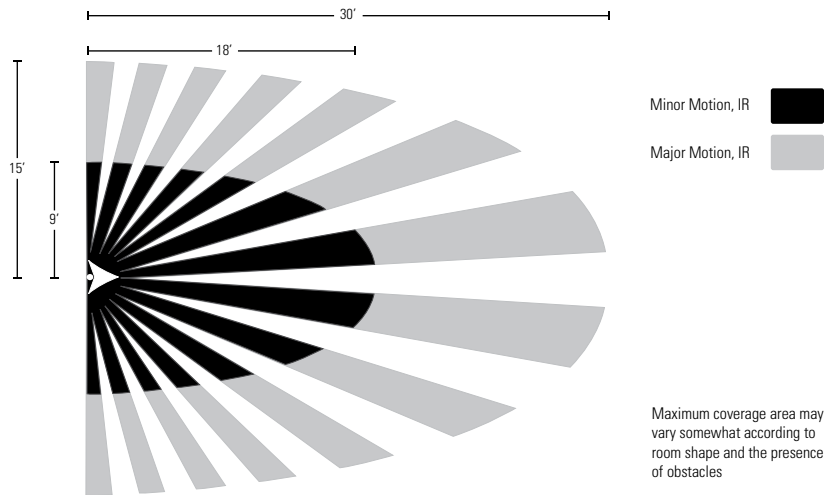
Daylight Switching Operation

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

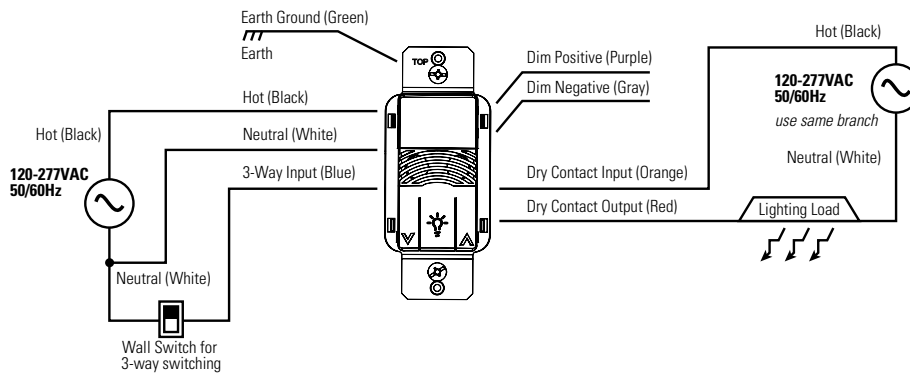
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Coverage



Wiring Diagrams

Single-Pole Wiring Diagram FLR, LED



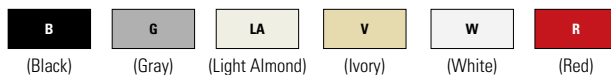
Wiring Diagram 1:
Typical Wiring Diagram
(Simple 3-way Switch)
Scene Dimming Allowed

Ordering

Catalog #	Description	Compatible Lamp Types	Rating Watt	Rating V/AC
OSW-D-010-*	0-10V Dual Tech Sensor Dimmer - Occupancy with LED Single pole/3-Way preset	0-10VDC LED/FLR	960 2200	120 277
VSW-D-010-*	0-10V Dual Tech Sensor Dimmer - Vacancy with LED Single pole/3-Way preset	0-10VDC LED/FLR	960 2200	120 277

For ordering devices, include Catalog no. followed by the Color suffix:
B (Black), G (Gray), LA (Light Almond), V (Ivory), W (White), R (Red)

Note: Not all colors are available in stock and some color options may have extended lead times.



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