

# OAC-DT – MicroSet Dual Tech Line Voltage Ceiling Sensor

Catalog#	Prepared by
Project	Date
Comments	Type

## Overview

The Dual Technology sensor's combination of Ultrasonic and Passive Infrared technologies offers the most complete sensing equipment available today. MicroSet self-adjusting Dual Technology sensors drastically simplify and reduce a contractor's installation and adjustment time period.

## Features

- MicroSet self-adjusting time delay and sensitivity
- Built-in light level sensor
- Units available for control of single or two separate loads
- Products tested to NEMA WD 7 - 2011 Occupancy Motion Sensors Standard
- LED Rated



## Specifications

<b>Technology</b>	Passive Infrared (PIR) and Ultrasonic (US)
<b>Power Requirements</b>	120 to 347 VAC, 50/60 Hz - Neutral Required
	<b>120 VAC</b>
	Incandescent/Tungsten - 0 to 800W, 50/60 Hz
	Fluorescent/Ballast - 0 to 1200W, 50/60 Hz
	Electronic Ballast (LED) 3A
	Motor Load: ¼ HP @ 125 VAC
	<b>230 VAC</b>
	Fluorescent/Ballast - 0 to 1200W, 50/60 Hz
	Electronic Ballast (LED) 3A
	<b>277 VAC</b>
	Fluorescent/Ballast - 0 to 2700W, 50/60 Hz
	Electronic Ballast (LED) 3A
	<b>347 VAC</b>
	Fluorescent/Ballast - 0 to 1500W, 50/60 Hz
	Electronic Ballast (LED) 3A
<b>Time Delays</b>	Self-adjustable, 15 seconds/test (10 minutes Auto), or Selectable 5, 15, 30 minutes
<b>Coverage</b>	2000 sq. ft.
<b>Light Level Sensing</b>	0 to 300 foot-candles
<b>Operating Environment</b>	Temperature: 32°F - 104°F (0°C - 40°C) Relative humidity: 20% to 90%, non-condensing For indoor use only
<b>Housing</b>	Durable, injection molded housing. Polycarbonate resin complies with UL 94V-0
<b>Size</b>	1.42" H x 4.5" W (36.068mm x 114.3mm)
<b>Mounting</b>	Mounts directly to ceiling tile, to a 4" square box and round mud ring or to 4" octagon box
<b>LED Indicators</b>	Red LED for PIR detection; Green LED for Ultrasonic detection
<b>Standards</b>	FCC Compliant cULus Listed RoHS Compliant



## Description/Operation

The MicroSet self-adjusting technology continuously monitors multiple sub-frequencies in the event that if a continuous Doppler shift occurs, such as those created by airflow from an air duct, the sensor will identify the noise as continuous and then block it out of view at a select sub-frequency. It will continue to monitor other sub-frequencies for human motion. This avoids false-activation, while still maintaining the high level of sensitivity that is necessary for sensing minor motion in a changing environment. Separate concurrent time delays for both Passive Infrared and Ultrasonic technologies avoid false activations or deactivations. In Automatic On Mode, the lights turn ON when a person enters the room. When enabled, the daylighting feature prevents lights from turning ON when the room is adequately illuminated by natural light.

## Applications

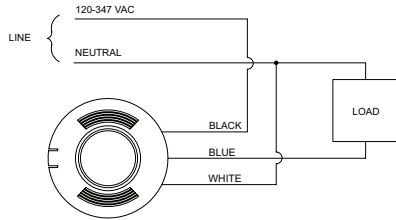
- Classrooms
- Conference Rooms
- Office Spaces
- Common Areas
- Computer Rooms
- Break Rooms
- Hallways
- Other Indoor Office Spaces

## Wiring Diagrams

### Single Relay

**AUTOMATIC MODE OPERATION:**

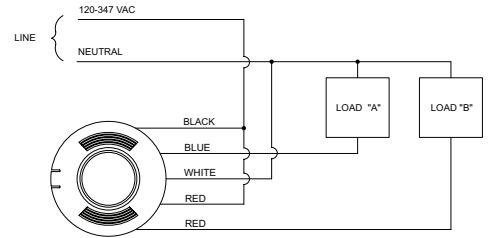
1. WHEN SENSOR ACTIVATES LOAD TURNS ON.
2. LOAD TURNS OFF WHEN SENSOR TIMES OUT.



### Dual Relay

**AUTOMATIC MODE OPERATION:**

1. WHEN SENSOR ACTIVATES, BOTH LOADS TURN ON.
2. LOADS TURN OFF WHEN SENSOR TIMES OUT.

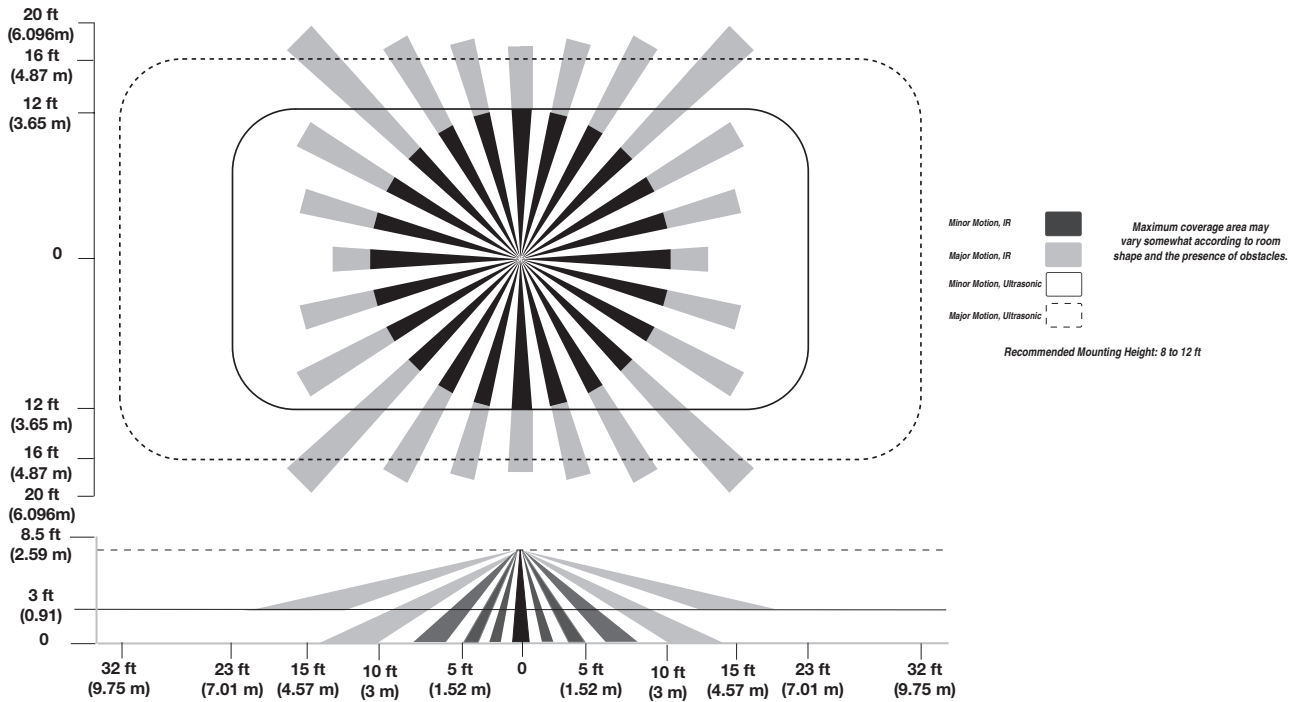


RED LEADS ARE NON-POLARITY SENSITIVE.

## Coverage

OAC-DT-2000-MV/DMV

2,000 sq. ft.



## Controls

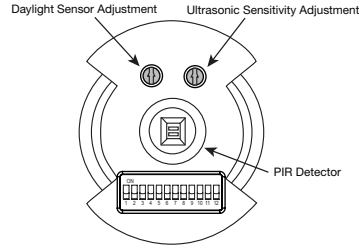
### DIP Switch Legend

DIP Switch	Time Delay		Not Used		PIR Sensitivity	Walk-Through Mode	LEDs	Override	Not Used	Daylighting	Bathroom Mode	Relay Swap
	1	2	3	4	5	6	7	8	9	10	11	12
Auto*	▼	▼			Full ▼	Disable ▼	Enable ▼	Disable ▼		Relay 2 ▼	Disable ▼	Disable ▼
5 Minutes	▼	▲			50% ▲	Enable ▲	Disable ▲	Enable ▲		Relay 1 & 2 ▲	Enable ▲	Enable ▲
15 Minutes	▲	▼										
30 Minutes	▲	▲										

(DMV model only) (DMV model only) (DMV model only)

\*Self-Adjusts to 10 min. user mode

Default =



## Ordering

Catalog #	Maximum Room Size	Field of View	Frequency	Features
OAC-DT-2000-MV	2,000 sq. ft.	Two Way (360°)	32 kHz	w/ Daylight Sensor
OAC-DT-2000-DMV	2,000 sq. ft.	Two Way (360°)	32 kHz	Dual Relay w/ Daylight Sensor

**Cooper Lighting Solutions**  
 1121 Highway 74 South  
 Peachtree City, GA 30269  
 P: 770-486-4800  
 www.cooperlighting.com  
 For service or technical assistance:  
 1-800-553-3879

© 2020 Cooper Lighting Solutions  
 All Rights Reserved  
 Printed in USA  
 Publication No. TD503110EN  
 March 1, 2018

Specifications and dimensions subject to change without notice.