Technical Data

Effective March 1, 2018

OAC-DT – MicroSet Dual Tech Line Voltage Ceiling Sensor

Catalog#	Prepared by
Project	Date
Comments	Type

PIR Activated

Ultrasonic Activated

MicroSet Self-Adjusting

California Title 20 Compliant

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

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Specifications

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

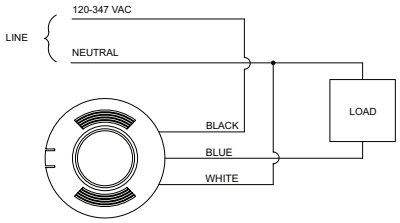
- Classrooms
- Conference Rooms
- Office Spaces
- Common Areas
- Computer Rooms
- Break Rooms
- Hallways
- Other Indoor Office Spaces

Wiring Diagrams

Single Relay

AUTOMATIC MODE OPERATION:

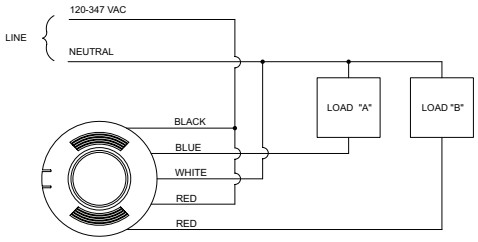
1. WHEN SENSOR ACTIVATES LOAD TURNS ON.
2. LOAD TURNS OFF WHEN SENSOR TIMES OUT.



Dual Relay

AUTOMATIC MODE OPERATION:

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

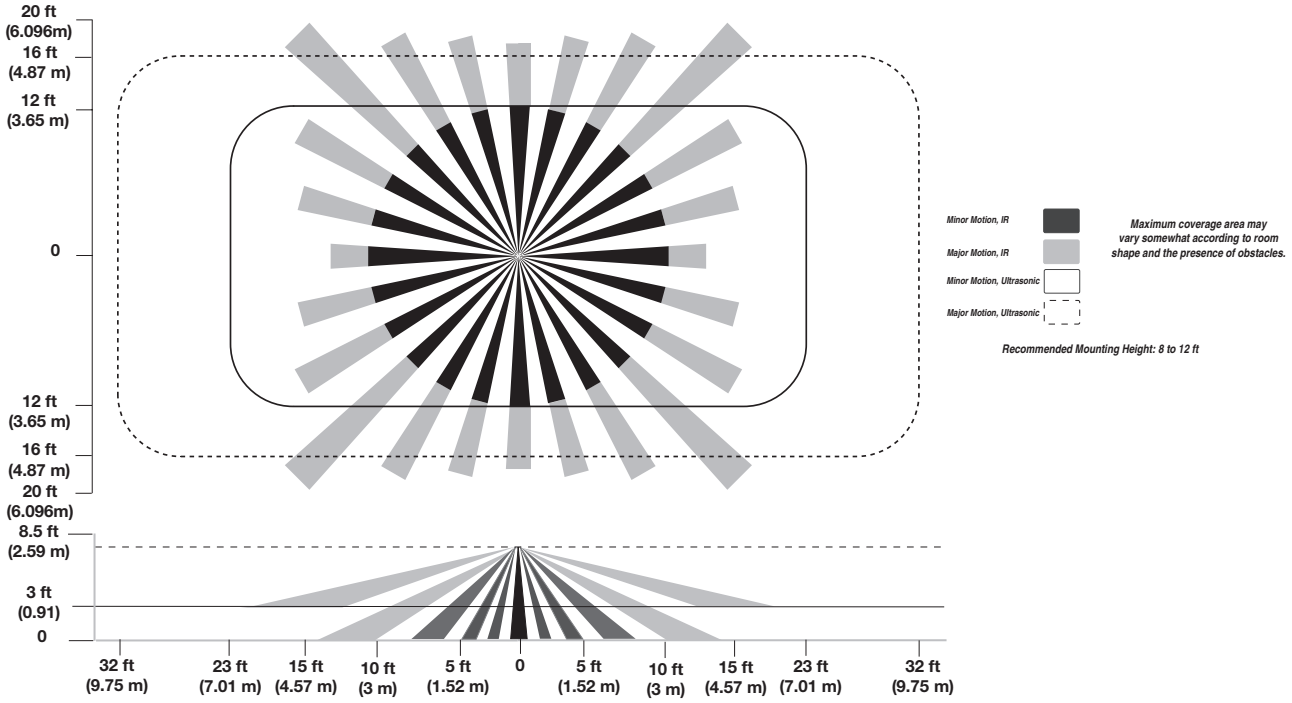


RED LEADS ARE NON-POLARITY SENSITIVE.

Coverage

OAC-DT-2000-MV/DMV

2,000 sq. ft.



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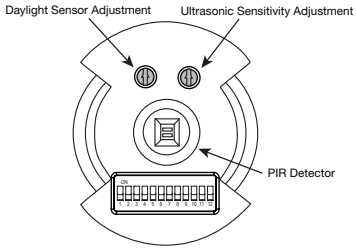
Controls

DIP Switch Legend

	Time Delay		Not Used		PIR Sensitivity	Walk-Through Mode	LEDs	Override	Not Used	Daylighting	Bathroom Mode	Relay Swap
DIP Switch	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	Freqency	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

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Specifications and dimensions subject to change without notice.