

OAC-P – MicroSet PIR Low Voltage Ceiling Sensor

Catalog#	Prepared by
Project	Date
Comments	Type

Overview

The MicroSet Passive Infrared Low Voltage Occupancy Sensing Ceiling Sensor is a motion sensing lighting control that is used for energy savings and convenience.

Features

- MicroSet self-adjusting time delay and sensitivity
- Optional built-in light level sensor
- Optional BAS/HVAC isolated relay
- Products tested to NEMA WD 7 - 2011 Occupancy Motion Sensors Standard
- Selectable Walk-Through Mode
- Dual Relay control



PIR
Activated




MicroSet
Self-Adjusting

EAT•N

Powering Business Worldwide

Specifications

Technology	Passive Infrared (PIR)
Power Requirements	<p>Input</p> <p>10-30 VDC from Greengate Switchpack or Greengate system</p> <p>Maximum current needed is 25mA per sensor</p> <p>Output</p> <p>Open collector output to switch up to ten Greengate Switchpacks</p> <p>BAS with Isolated Form C Relay in (-R) model</p> <p>Isolated Form C Relay Ratings: 1A 30 VDC/VAC</p>
Time Delays	Self-adjustable, 15 seconds/test (10 minutes Auto) or Selectable 5, 15, 30 minutes or Zero Time Delay
Coverage	500 & 1,500 sq. ft.
Light Level Sensing (-R Models)	0 to 300 foot-candles
Operating Environment	<p>Temperature: 32° F - 104° F (0°C - 40° C)</p> <p>Relative humidity: 20% to 90%, non-condensing</p> <p>For indoor use only</p>
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
Standards	<p>FCC Compliant</p> <p>cULus Listed</p> <p>RoHS Compliant</p> 

Description/Operation

The sensor is designed to detect motion from a heat-emitting source (such as a person entering a room) within its field-of-view and automatically switch lights ON. These sensors have multi-segmented lenses. For units to sense motion, the person must cross between two segments. The distance between segments increases the farther you are from the sensor, so motion has to be larger the farther you are from the unit. PIR sensors are considered line-of-sight sensors, meaning that the sensor must be able to have a direct line-of-sight to the person making the motion. The sensor includes self-adaptive technology that continuously self-adjusts sensitivity and Time Delay in real-time, maximizing the potential energy savings that are available in the particular application. In Automatic On Mode, the lights turn ON when a person enters the room. In Manual On Mode (-R model only), the lights are turned ON by activating a momentary switch (model # GMDS-*) that is connected to the sensor. The MicroSet Passive Infrared Low Voltage Ceiling Sensor has an ambient light level sensor. When enabled, the daylighting feature (-R units only) prevents lights from turning ON when the room is adequately illuminated by natural light.

Applications

- Conference Rooms
- Open Office Areas
- Small Private Offices
- Common Areas
- Break Rooms
- Restrooms (Non-Partitioned)
- Utility Closets

Wiring Diagrams

OAC-P-1500-R Model

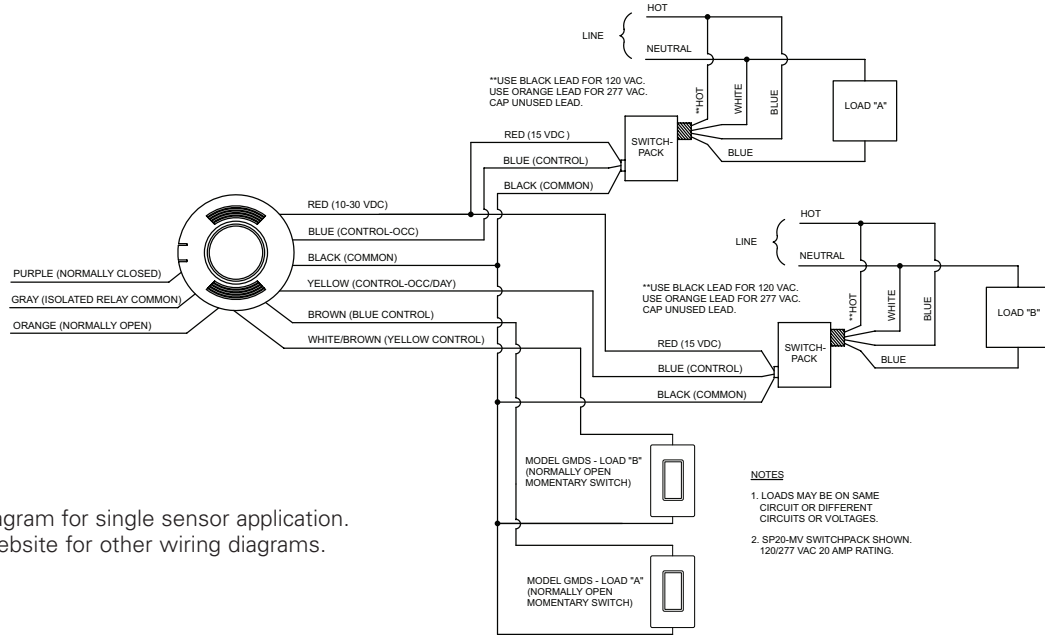
OAC AND VAC MANUAL MODE OPERATION:

1. SWITCHES ARE REQUIRED TO TURN CORRESPONDING LOADS ON.
2. LOADS TURN OFF WHEN SENSOR TIMES OUT OR WITH SWITCHES.
3. IF DAYLIGHT SENSOR IS ENABLED AND LIGHT LEVEL IS ABOVE SETPOINT, SWITCHPACK CONNECTED TO YELLOW LEAD WILL NOT TURN LOAD ON.

OAC AUTOMATIC MODE OPERATION:

1. WHEN SENSOR ACTIVATES, BOTH LOADS TURN ON.
2. SWITCHES CAN BE USED TO TURN LOADS ON OR OFF.
3. IF DAYLIGHT SENSOR IS ENABLED AND LIGHT LEVEL IS ABOVE SETPOINT, SWITCHPACK CONNECTED TO YELLOW LEAD WILL NOT TURN LOAD ON.

RECOMMENDED WIRE:
18-3 AWG STRANDED WIRE SHIELDED OR NONSHIELDED

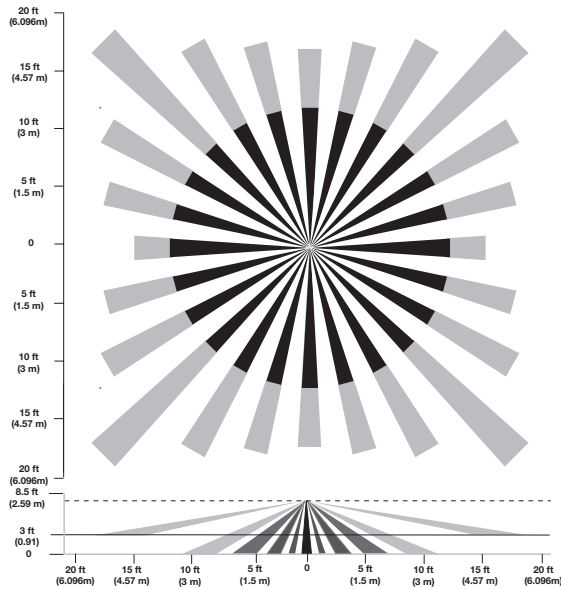


*Wiring diagram for single sensor application.
Visit our website for other wiring diagrams.

- NOTES**
1. LOADS MAY BE ON SAME CIRCUIT OR DIFFERENT CIRCUITS OR VOLTAGES.
 2. SP20-MV SWITCHPACK SHOWN. 120/277 VAC 20 AMP RATING.

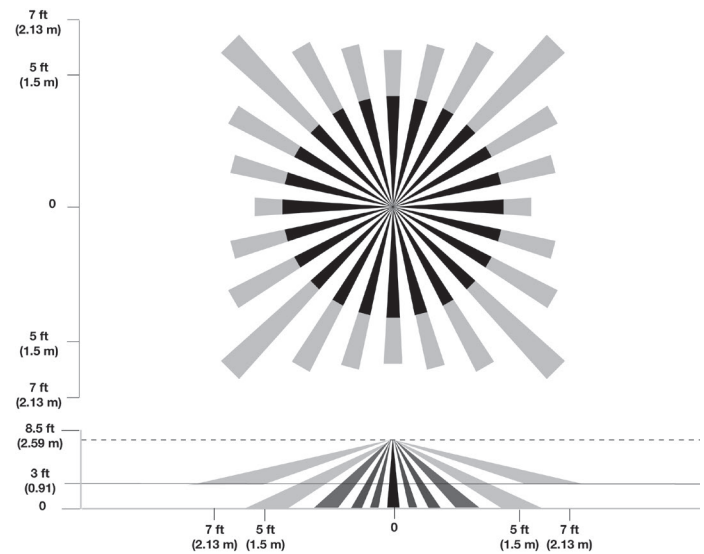
Coverage

OAC-P-1500-R
1500 sq. ft.



Recommended Mounting Height: 8 to 12 ft

OAC-P-0500-R
500 sq. ft.



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

- Minor Motion, IR (dark gray square)
- Major Motion, IR (light gray square)

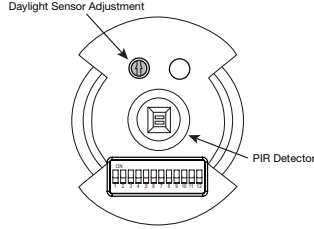
Controls

DIP Switch Legend

DIP Switch	Time Delay		Activation		PIR Sensitivity	Walk-Through Mode		LEDs	Override	Sweep	Full/Half Logic	HVAC/Tracking	Zero Time Delay
	1	2	Relay 1 3	Relay 2 4		5	6						
Auto*	▼	▼	Auto ▼	Auto ▼	Full ▼	Disable ▼	Enable ▼	Disable ▼	Disable ▼	Disable ▼	Full ▼	Disable ▼	Disable ▼
5 Minutes	▼	▲	Manual ▲	Manual ▲	50% ▲	Enable ▲	Disable ▲	Enable ▲	Enable ▲	Enable ▲	Half ▲	Enable ▲	Enable ▲
15 Minutes	▲	▼											
30 Minutes	▲	▲											

*Self-Adjusts to 10 min. user mode

Default =



Ordering

Catalog #	Maximum Room Size	Field of View	Features
OAC-P-0500-R	500 sq. ft.	360°	w/ BAS Relay & Daylight Sensor
OAC-P-0500	500 sq. ft.	360°	
OAC-P-1500-R	1,500 sq. ft.	360°	w/ BAS Relay & Daylight Sensor
OAC-P-1500	1,500 sq. ft.	360°	

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