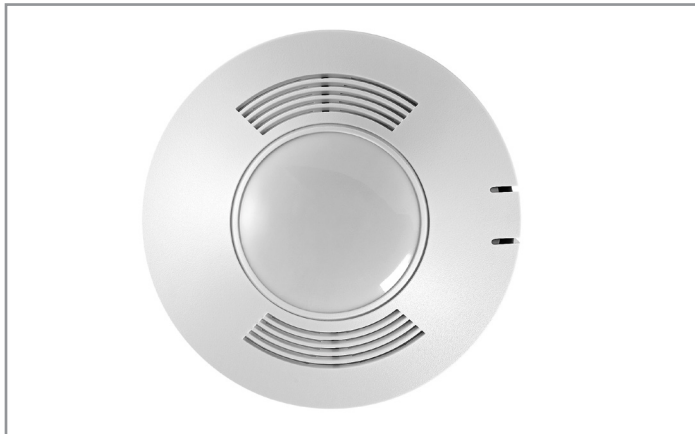


Project		Catalog #		Type	
Prepared by		Notes		Date	



# Greengate

## VAC-P-MicroSet PIR

Low Voltage Vacancy Ceiling Sensor

### Typical Applications

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

### Interactive Menu

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- Wiring Diagrams [page 3](#)
- Product Warranty

### Product Certification



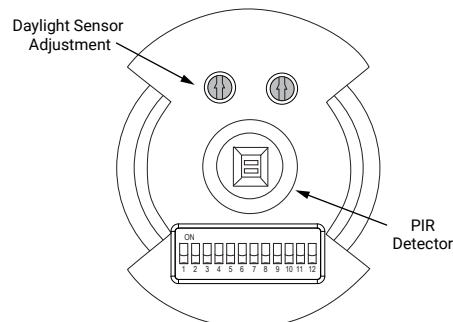
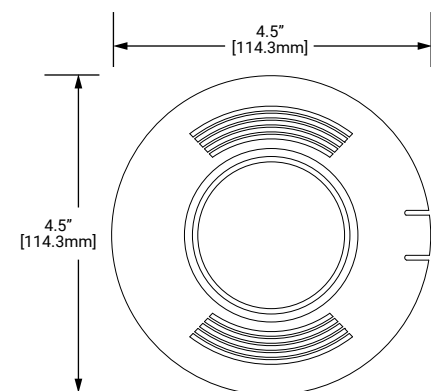
### Product Features



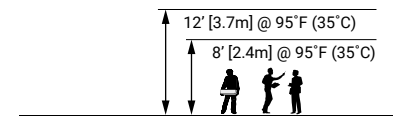
### Top Product Features

- 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
- Requires Manual On for activation

### Dimensional and Mounting Details



### Scale or Mounting Height



[additional product diagrams](#)

## Order Information

### Catalog Number

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

## Optional Accessory Components

### Catalog Number

Catalog Number	Description
GMDS-W	Low Voltage Manual ON Switch(es)

## Product Specifications

### Technology

- Passive Infrared (PIR)

### Mechanical

**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

### 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, injection molded housing. Polycarbonate resin complies with UL 94V-0

### Electrical

#### Power Requirements:

- Input
  - 10-30 VDC from Greengate Switchpack or Greengate system
  - Maximum current needed is 10mA per sensor
- Output
  - Open collector output to switch up to ten Greengate Switchpacks
  - BAS with Isolated Form C Relay in (-R) model
  - Isolated Form C Relay Ratings: 1A 30 VDC/VAC

### Hardware Specifications

#### LED Indicators:

- Red LED for PIR detection

### Controls and Performance

#### Time delays:

- Self-adjustable, 15 seconds/test (10 minutes Auto), or Selectable 5, 15, 30 minutes, or Zero Time Delay

#### Coverage:

- 500 and 1,500 sq. ft.

#### Light sensing level (-R Models):

- 0 to 300 foot candles

### Standards/Ratings

- cULus Listed - Energy Management Equipment (UL916)
- FCC Compliant
- RoHS Compliant

### Warranty

Five year warranty standard

## Overview

The MicroSet Passive Infrared Low Voltage Vacancy Ceiling Sensor increases energy savings by requiring a Manual On input to turn on the lighting.

The Passive Infrared (PIR) sensor monitors space occupancy to deliver maximum energy savings. 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. 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 prevents lights from turning ON when the room is adequately illuminated by natural light. 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.

## Wiring Diagrams

### VAC-P-1500-R Model

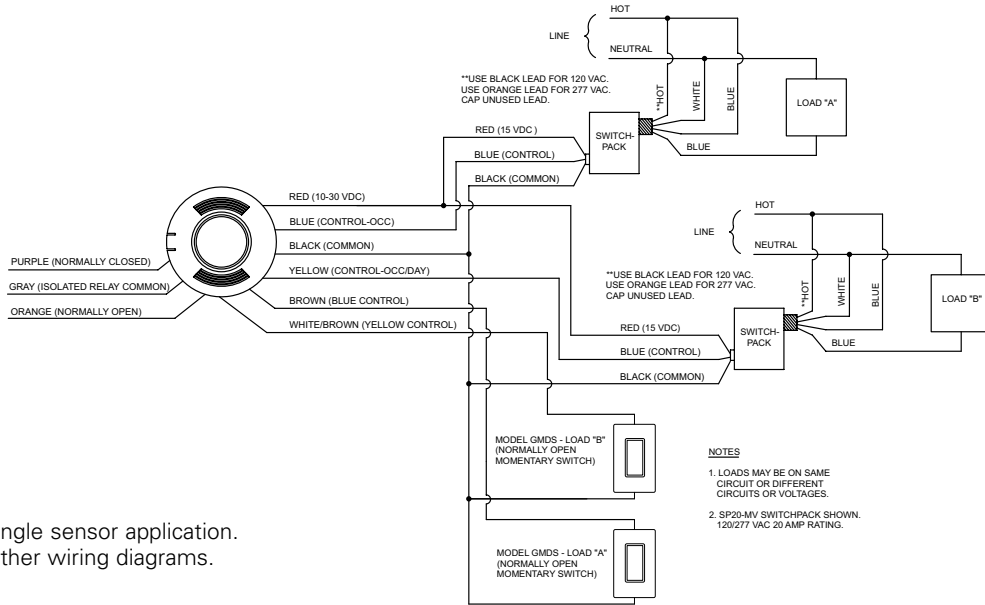
#### OAC AND VAC MANUAL MODE OPERATION:

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 NON-SHIELDED



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

## Controls

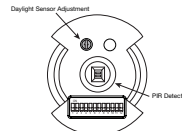
#### DIP Switch Legend

DIP Switch	Time Delay		Not Used		PIR Sensitivity	Not Used		LEDs	Override	Sweep	Full/Half Logic	HVAC/Tracking	Zero Time Delay
	1	2	3	4	5	6	7	8	9	10	11	12	
Auto*	▼	▼			Full ▼			Enable ▼	Disable ▼	Disable ▼	Full ▼	Disable ▼	Disable ▼
5 Minutes	▼	▲			50% ▲			Disable ▲	Enable ▲	Enable ▲	Half ▲	Enable ▲	Enable ▲
15 Minutes	▲	▼											
30 Minutes	▲	▲											

(-R model only) (-R model only)

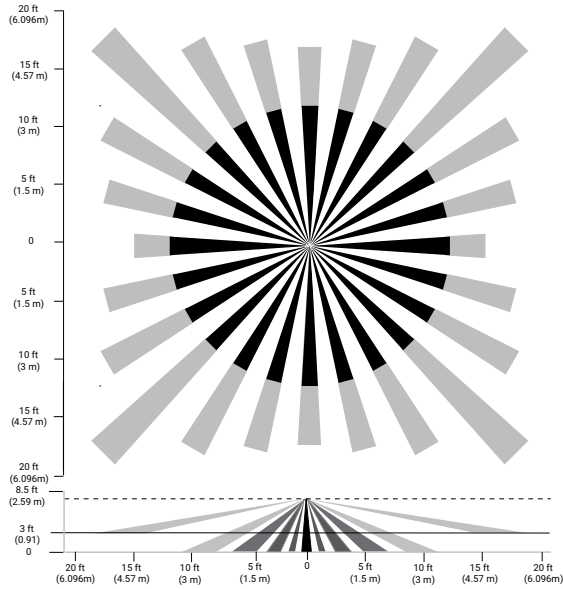
\*Self-Adjusts to 10 min. user mode

Default =



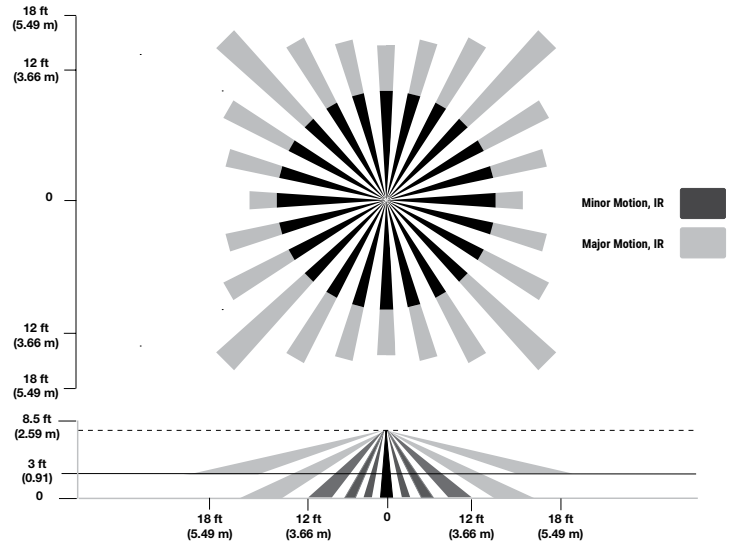
## Field of View

**VAC-P-1500-R**  
1500 sq. ft.



Recommended Mounting Height: 8 to 12 ft

**VAC-P-0500-R**  
500 sq. ft.



### Control Systems

- Greengate