Project		Catalog #		Type	
Prepared by		Notes		Date	

Greengate

OAWC-DT-120W Dual Technology

Wall / Corner Sensor

Typical Applications

Classrooms • Conference Rooms • Large Offices • Common Areas • Computer Rooms • Break Rooms

Interactive Menu

Product Certification

Product Features

PIR Activated Ultrasonic Activated Self-Adjusting

Overview

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

The OAWC-DT combines Ultrasonic (US) and Passive Infrared (PIR) sensor technologies to monitor a room for occupancy to deliver maximum energy savings and ensure the greatest sensitivity and coverage for tough application without the threat of false triggers. PIR is used to turn the lights ON and then either or both technologies are used to keep the lights ON. The sensor includes MicroSet self-adaptive technology that continuously self-adjusts sensitivity and time delay in real-time, maximizing the potential energy savings that are available in particular application. In Automatic On Mode, the lights turn ON when a person enters the room. In Manual-On Mode, the lights are turned ON by activating a momentary switch (model # GMDS-*) that is connected to the sensor. When used with 2 level lighting (-R model only), Bi-level Automatic On can be achieved which allows Zone 1 to come on automatically upon occupancy. Zone 2 does not come on unless the occupant presses the optional momentary switch. When enabled, the daylighting feature (-R models only) prevents lights from turning ON when the room is adequately illuminated by natural light.

Top Product Features

- MicroSet self-adjusting time delay and sensitivity
- Optional built-in light level sensor
- Optional BAS/HVAC isolated relay
- NEMA WD7 Guide robotic method utilized to verify coverage patterns
- Manual On feature for use with 1 or 2 momentary switches controlling 1 or more Switchpacks
- Selectable Walk-Through Mode

COOPER
Lighting Solutions

Order Information

Catalog Number

Catalog Number	Coverage	Field of View	Features
OAWC-DT-120W-R	1,200 sq. ft.	Wide Angle (120°)	w/ BAS Relay & Daylight Sensor
OAWC-DT-120W	1,200 sq. ft.	Wide Angle (120°)	

Product Specifications

Technology
- Passive Infrared (PIR) and Ultrasonic (US)

Mechanical
Size: 4.4"H x 3.4"W x 2"D (112mm x 86.4mm x50.8mm)
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
  - 0-30 VDC from Greengate Switchpack or Greengate System
  - Maximum current needed is 25mA per sensor
- Output
  - Open collector output to switch up to ten Greengate Switchpacks
  - Isolated Form C Relay in (-R models)
  - Isolated Form C Relay Ratings: 1A 30 VDC/VAC

Hardware Specifications
LED Indicators:
- Red LED for PIR detection; Green LED for Ultrasonic detection

Controls and Performance
Time delays:
- Self-Adjusting, 15 seconds/test, 5, 10, 15, 30 minutes
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

Wiring Diagrams

OAWC-DT-120W-R Model

MANUAL MODE OPERATION:

1. SWITCHES ARE REQUIRED TO TURN CORRESPONDING LOADS ON.

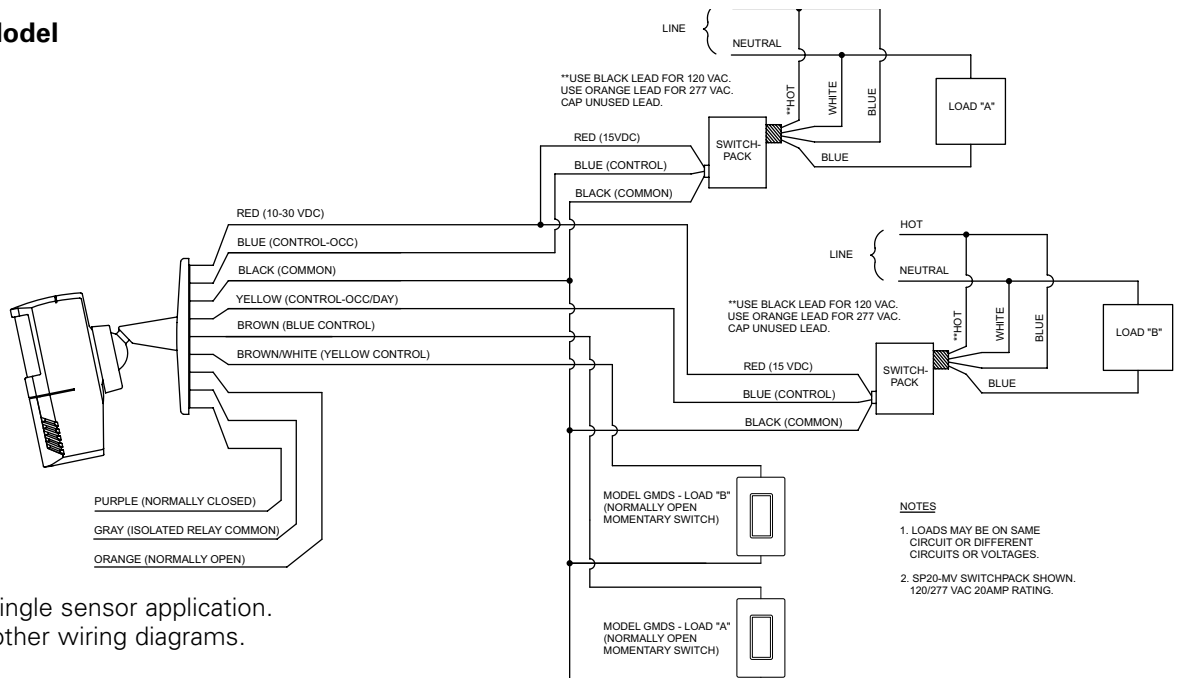2. LOADS TURN OFF WHEN SENSOR TIMES OUT OR WITH SWITCHES.

AUTOMATIC MODE OPERATION:

1. WHEN SENSOR ACTIVATES, BOTH LOADS TURN ON.

2. SWITCHES CAN BE USED TO TURN LIGHTS 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.
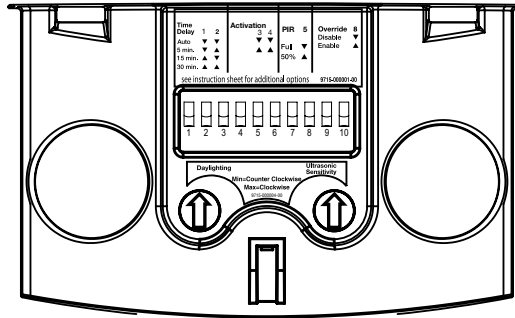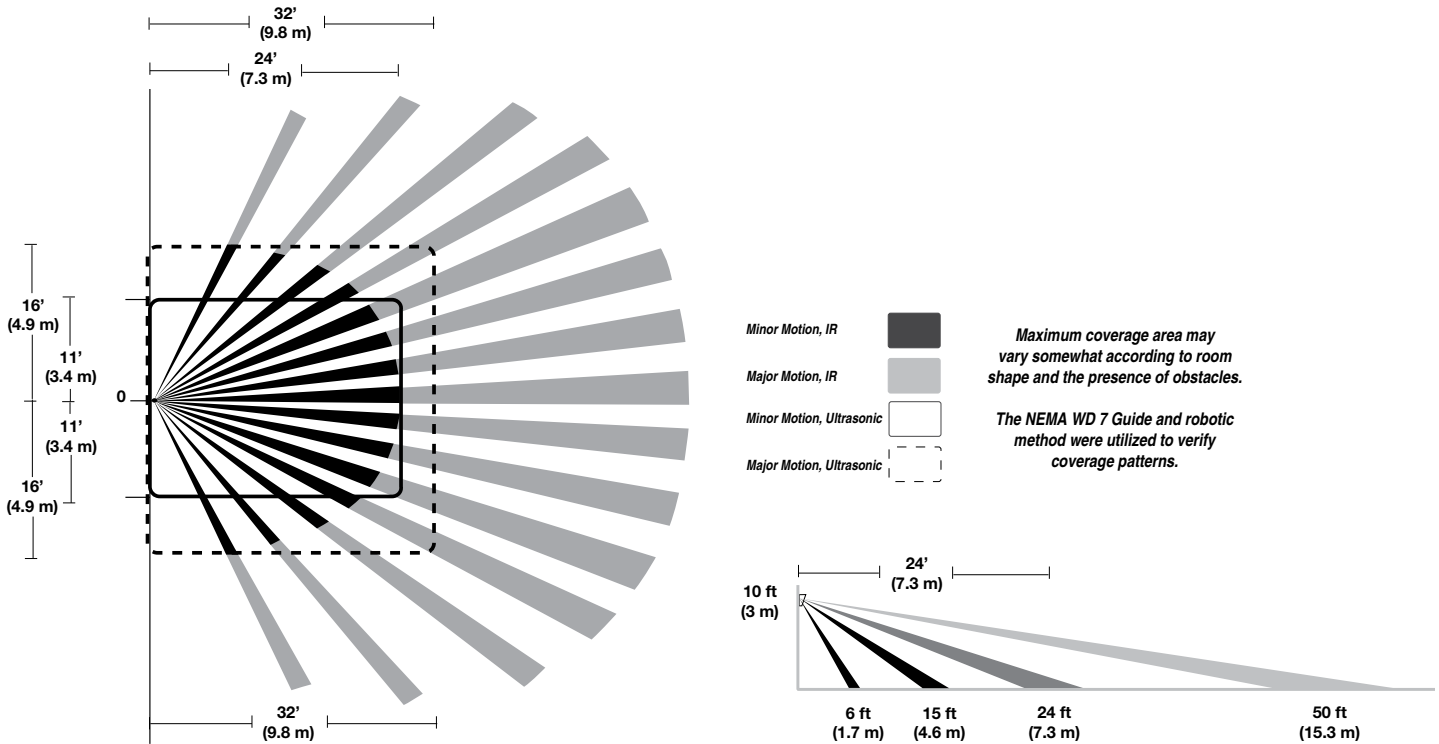Visit our website for other wiring diagrams.

NOTES

1. LOADS MAY BE ON SAME CIRCUIT OR DIFFERENT CIRCUITS OR VOLTAGES.

2. SP20-MV SWITCHPACK SHOWN. 120/277 VAC 20AMP RATING.

Controls

DIP Switch Legend

	Time Delay			Activation	Activation	PIR Sensitivity	Walk-Through Mode	LEDs	Override	Lighting Sweep	Daylighting Mode
DIP Switch			Power Pack One	Power Pack Two							
	1	2	3	4	5	6	7	8	9	10
Auto*	▼	▼	Auto ▼	Auto ▼	Full ▼	Disable ▼	Enable ▼	Disable ▼	Disable ▼	Half ▼
5 Minutes	▼	▲	Manual ▲	Manual ▲	50% ▲	Enable ▲	Disable ▲	Enable ▲	Enable ▲	Full ▲
15 Minutes	▲	▼	(-R model only)							(-R model only)
30 Minutes	▲	▲								

Self-Adjusts to 10 min. user mode

Default =

Field of View

Minor Motion, IR

Major Motion, IR

Minor Motion, Ultrasonic

Major Motion, Ultrasonic

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

The NEMA WD 7 Guide and robotic method were utilized to verify coverage patterns.

32' (9.8 m)
24' (7.3 m)
16' (4.9 m)
11' (3.4 m)
0
11' (3.4 m)
16' (4.9 m)
32' (9.8 m)

10 ft (3 m)
24' (7.3 m)
6 ft (1.7 m)
15 ft (4.6 m)
24 ft (7.3 m)
50 ft (15.3 m)

Control Systems
- Greengate