OXC-P – Extreme Temperature Sensors

Catalog#	Prepared by
Project	Date
Comments	Type

Immune to RFI, EMI and voltage fluctuations

Passive Infrared (PIR) sensor technology



Segmented Fresnel lens provides optimum sensitivity and performance

Built-in photocell optimizes savings

Plastic housing complies with UL 94V-0

Stable sensitivity at temperatures from -40°F to 125°F (-40°C to 52°C)

BAS Compatible

PIR Activated

Extreme Temperature

Overview

The Passive Infrared Extreme Temperature sensor provides consistent, stable coverage where extreme heat, cold or humidity must be accommodated and where there are wide fluctuations in temperature. Temperature compensating circuitry stabilizes sensitivity at temperatures –40°F to 125°F (-40°C to 52°C).

Features

- UL Listed for damp locations
- OXC-P-2MH0-R works at heights up to 25 ft.
- Ambient light control circuit to avoid False ON/OFF from brief changes in background light
- Temperature-compensating circuitry avoids false activation in extreme conditions
- Lighting sweep function with selectable DIP Switch prevents unnecessary "lights ON" following power sweeps in facilities with computer control systems
- Products tested to NEMA WD 7 - 2011 Occupancy Motion Sensors Standard

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Specifications

Technology	Passive Infrared (PIR)
Power Requirements	**Input**
	10-30 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 Ratings: 1A 30 VDC/VAC
Time Delays	Adjustable delay of 15 seconds (for testing) to 30 minutes
Ambient Light Level Features	Adjustable down to approximately 3 LUX
Operating Environment	Temperature: -40°F to 125°F (-40°C to 52°C)
	Relative humidity: less than 95%, non-condensing
	Indoor or outdoor (refer applications section)
Housing	Medium impact injection molded housing. ABS resin complies with UL 94V0. Paintable off-white
Size	1-5/8"H x 4-1/2"W x 3-1/8"D (41.3mm x 114.3mm x 79.4mm)
LED Indicators	Red LED for PIR detection
Standards	UL Listed

Description/Operation

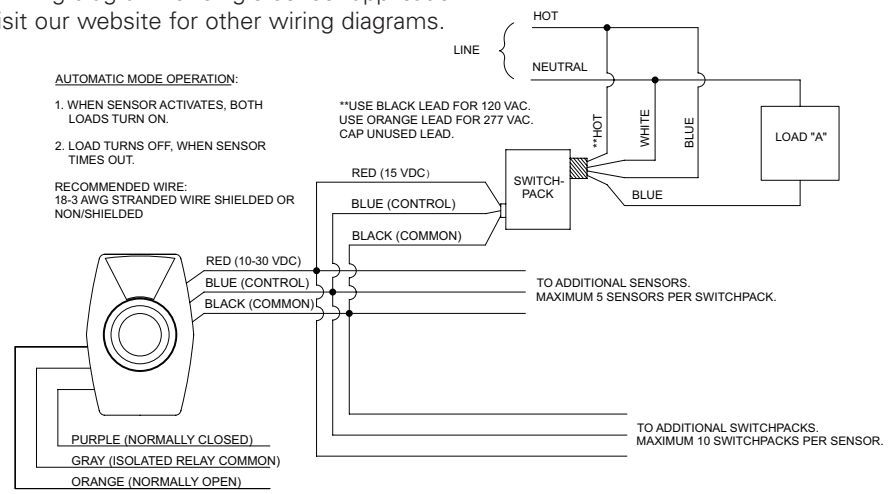
OXC-P sensors control lighting in applications where extreme temperature/humidity must be tolerated with unique temperature compensating circuitry. Human and automobile motion activates a Greengate Switchpack to turn lights ON within a coverage area and illumination is maintained until no motion is detected within preset time period. Once no motion is detected, lights are turned OFF and energy is saved. A built-in photocell optimizes savings by monitoring ambient light level (set at a predetermined threshold). If ambient light is sufficient, sensor will detect motion but not turn ON lights. If ambient light is not sufficient, lights will be activated when motion is detected. The Ambient Lights Control Circuit includes a deadband and time delay which ignores brief changes in light levels such as headlights of a passing car. To ensure the proper start-up of HID lighting, lamps are forced into "high" mode for the first 20 minutes. After the 20 minute warm up, if motion is still detected, the sensor will keep lights ON at full brightness. When connected to a Building Automation System (BAS), the OXC-P-1500-R and OXC-P-2MH0-R offer the most versatile connection possibilities available including an open collector output (with or without the pullup feature) and a direct BAS connection.

Applications

- Parking Structures
- Warehouses – (OXC-P-2MH0-R)
- High Ceilings
- Walk-in Freezers – (OXC-P-1500-R)
- Cold Storage

Wiring Diagrams

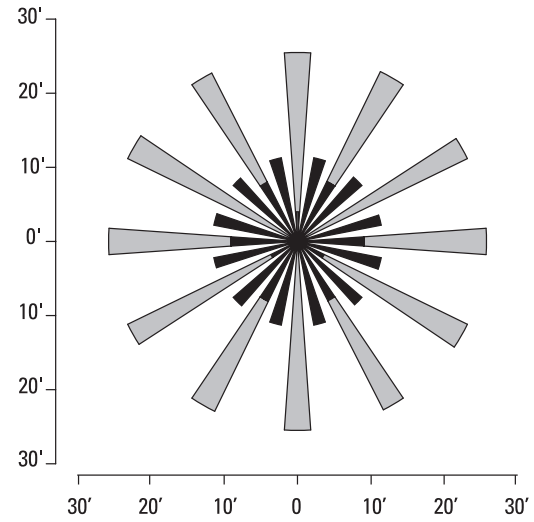
*Wiring diagram for single sensor application.
Visit our website for other wiring diagrams.



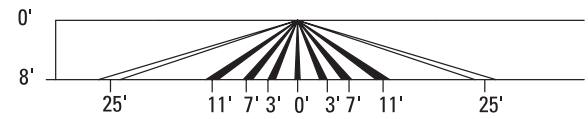
Coverage

OXC-P-1500-R

TOP VIEW

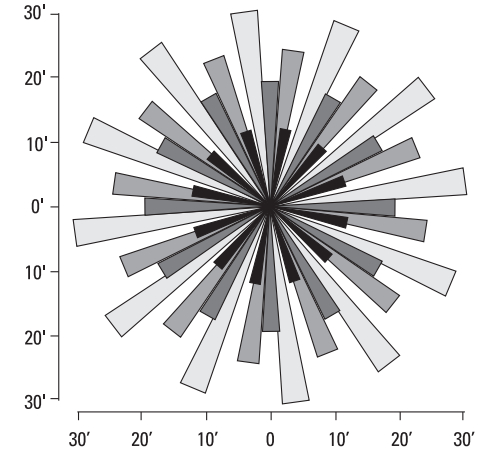


SIDE VIEW

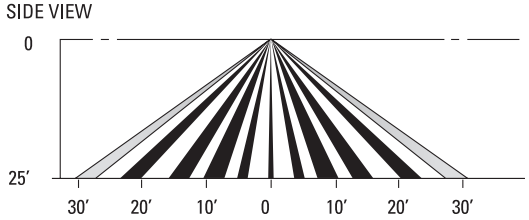


OXC-P-2MH0-R

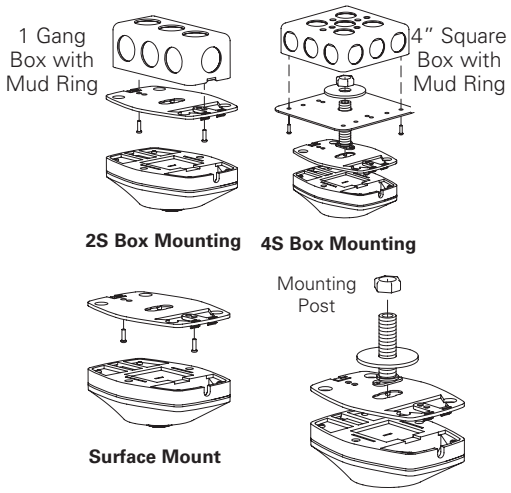
TOP VIEW



SIDE VIEW



Mounting



SENSOR: The sensor mounts to normal ceiling tile through a 3/4" hole. The threaded mounting post may be cut down if it is too long to fit into the junction box. The sensor may also be surface mounted or mounted to a standard NEMA 2S or 4S junction box.
CAUTION: Finger-tighten the nut to avoid stripping the mounting post. Do not apply pressure to Fresnel lens.

BACKPLATE: The sensor can be easily snapped onto or pulled away from the backplate without disturbing the mounting hardware. To pull the sensor away from the backplate, place your fingers on the door on the front of the sensor and slide your fingers up onto the back end of the sensor, with your fingers resting below the edge of the backplate. As you press against the sensor, use your other hand to grip the opposite end of the sensor and pull it away from the backplate.

To snap the sensor back onto the backplate, place the end of the sensor without a door against the backplate first, hooking the edge of the sensor on the two small prongs that extend from the backplate. Press the other end of the sensor against the backplate until it snaps into place.

SWITCHPACK: Designed to be mounted externally to any junction box. When mounted, the line connections are inside the box and the Class 2 wiring exits the rear of the Switchpack housing. In areas where Class 2 wiring is not permitted, the Switchpack can be mounted internally to any standard electrical box.

Ordering

Catalog #	Coverage	Field of View	Features
OXC-P-1500-R	Up to 1,500 sq. ft.	Two Way (360°)	w/BAS Relay & Daylight Sensor
OXC-P-2MH0-R	When mounted @ 25 ft., up to 25 ft. in all directions or 50 linear ft. for warehouse aisles	Two Way (360°)	w/BAS Relay & Daylight Sensor

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Publication No. ACC141004
November 5, 2014

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