LEVITON®

Passive Infrared Ceiling Occupancy Sensor with Isolated Relay

OSC04-RIW OSC15-RIW

BASIC OPERATION

The OSCxx-RIW Infrared Ceiling Sensor is a low voltage occupancy sensor that works in conjunction with the Leviton OSPxx Power Pack to control lighting. The sensor's main function is to turn the lights ON or maintain the lights ON while movement is detected within the sensor's range and to turn the lights OFF when the space is left unoccupied.

The sensor uses a dual element PIR heat detector that resides behind a multi-zone optical lens. This Fresnel lens establishes dozens of zones of detection. The sensor is sensitive to the heat emitted by the human body. In order to trigger the sensor, the source of heat must move from one zone of sensing to another. Non-moving hot objects will not cause the lights to turn ON (like incandescent lights).

Additionally, the sensor is designed with an isolated relay contact which enables the sensor to interface with other systems (example: BAS, HVAC or any dry-contact capable device or system).

APPLICATIONS

- Classrooms
- Copy rooms
- Open areas
- Small offices
- Conference rooms
- Workspaces
- Hallways
- Private restrooms

FEATURES

- Isolated relay: Supports HVAC or other Class 2 low voltage signals
- Supports both 24VAC/VDC power supplies
- Range & coverage: 450 sq. feet and 1,500 sq. feet models available
- Self-adjusting: internal microprocessor continually analyzes, evaluates and adjusts the infrared sensitivity and time delay. Performance is kept at a maximum and user complaints are eliminated.
- Custom white color matched for most common daylight harvesting architecture
- Uses OSPxx Series Power Pack: uses Class 2, 24 volt wiring, three wire connection (low voltage). Multiple sensors can control single or multiple power packs.
- Additional mid-range lens assembly included for applications with mounting heights between 12'-20'
- Fast, simple installation: easy ceiling mount, twist-lock sensor attachment for 360° rotation and flexibility
- Timer setting feature: automatic—30sec–30min. Test mode—4sec with auto exit programming.
- Non-volatile memory: learned and adjusted settings saved in protected memory are not lost during power outages
- Walk-through: provides increased energy savings by decreasing the time delay to 2.5min when someone momentarily walks through the monitored space
- PIR masking: pre-scored masking disks are provided with the device for fine tuning the field-of-view
- High motion sensitivity: large lens area and multi-element lens design gives excellent range and sensitivity
- Device: rugged, high-impact, injection molded plastic Color coded leads are 7" long (17.78 cm)

HOW THE OSC04-R/OSC15-R AUTOMATICALLY ADAPTS

Condition	Example	Adaptive Reaction
Timer Left In Test Mode - The sensor remains in an 4 sec. test mode.	An installer accidentally leaves the sensor in the 4 sec. timer test mode and the lights may go off or on every 4 sec.	The sensor automatically resets the timer to the preset time delay after 15 minutes of test mode
False-On - The sensor incorrectly turns the lights on.	The sensor detects movement in the corridor or hallway and the room lights turn on.	After an initial movement is sensed, if another movement is not sensed within the timer setting then the delayed off time setting is automatically reduced.
False-Off - The sensor incorrectly turns the lights off.	The sensor does not detect movement because an occupant sits virtually motionless at a desk and the lights turn off.	If motion is sensed within a short period after the lights go off, then the current delayed off-time setting is increased.

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DIP SWITCH SETTINGS

SWITCH		SWITCH FUNCTIONS	SWITCH SETTINGS	
	BANK A	**OFF**	**ON**	
A1	N/A			
A2	N/A			
A3	Manual Mode	**Auto Adapting Enabled**	Auto Adapting Disabled	
A4	Walk-Thru Disable	Walk-Thru Enabled	**Walk-Thru Disabled**	
	BANK B			
B1	Override to On	**Auto Mode**	Lights forced On	
B2	Override to Off	**Auto Mode**	Lights forced Off	
B3	Test Mode	**OFF'ON'OFF**	Enter/Exit Test Mode	
B4	LED Disable	**LEDs Enabled**	LEDs Disabled	

*Bold items are factory defaults

SPECIFICATIONS

ELECTRICAL	
Power Requirements	15-28 VAC/VDC from OSPxx Power Pack or other Class 2 power supplies
Isolated Relay	1A @ 30VAC/VDC
Power Consumption	15mA DC, 30mA AC
Output	24 VDC active high logic control signal with short circuit protection

CONTROLS	
Infrared Sensitivity	0 to 100%; red knob (factory setting: 75%)
Time Delay	30sec-30min; black knob (factory setting: 10min)

INDICATORS	
Red LED Lamp	Passive infrared motion technology

ENVIRONMENTAL	
Operating Temperature Range	32-104°F (0-40°C)
Relative Humidity	0-95% non-condensing, for indoor use only

| OTHER	
Mounting Height	Low-range lens (default) 8-12 feet / Mid-range lens 12-20 feet
Dimensions	4.2" W x 1.57" D
Listings	CUL/US Certified, can be used to comply with ASHRAE 90.1 and 2016 Title 24, Part 6 occupancy sensing requirements
Warranty	Limited Five-Year Warranty

ORDERING INFORMATION

CAT NO.	DESCRIPTION
OSC04-RIW	Passive Infrared Ceiling Sensor, 450 sq. feet of coverage
OSC15-RIW	Passive Infrared Ceiling Sensor, 1,500 sq. feet of coverage

Made in USA with globally sourced components and NAFTA compliant models available.
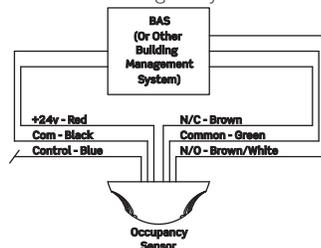
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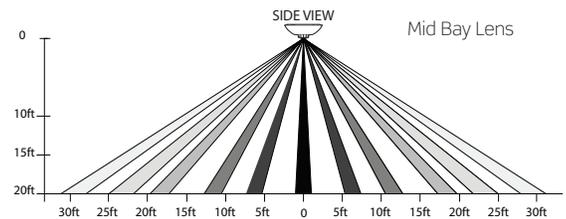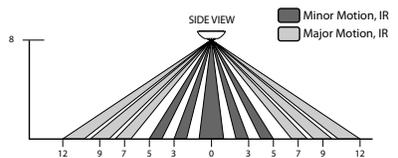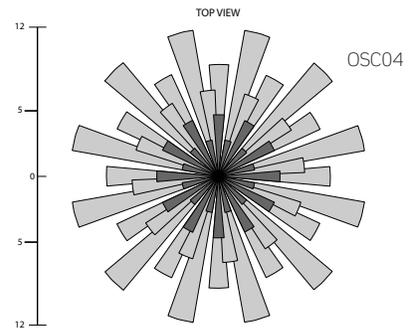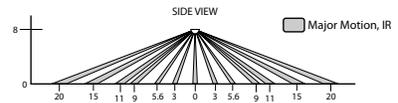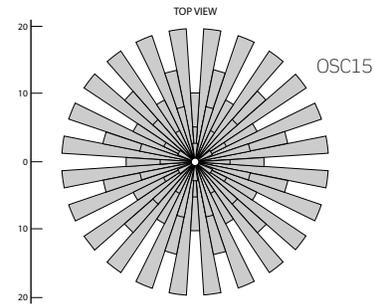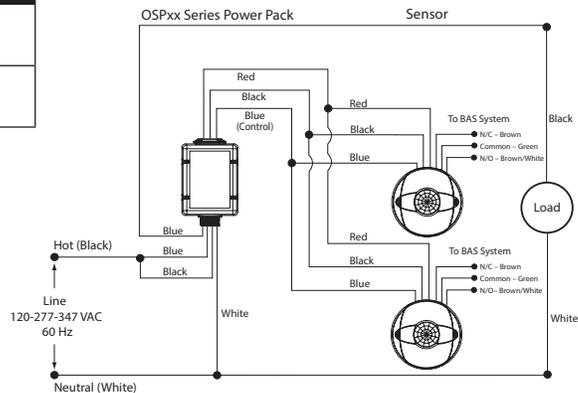
OSC15

Major Motion, IR

OSC04

Minor Motion, IR
Major Motion, IR

Mid Bay Lens

PHYSICAL WIRING

G-8578A/K17-aa
REV NOV 2017