PIR Fixture Mount High-Bay Sensor with Integrated Light Sensor and Two Interchangeable Lenses

Available as a dual relay, alternating relay, demand response, low voltage or cold storage model

**FEATURES**
- Integrated rotating adjustable light sensor for light hold-off
- 24 hour auto-calibration for set-it and forget-it
- Dual relays for bi-level control
- Alternating relay software for increased lamp life
- Interchangeable 360° high bay and low bay lenses included
- Adjustable time delay (no power required)
- 42" pre-stripped color-coded wire leads
- Quicksnap feature for easy installation
- H.I.S. (High Inrush Stability) Technology
  - Zero crossing circuitry
  - Robust mechanical latching relay
- Non-volatile memory, device returns to its last state during power interruption
- LED indicator light blinks when sensor detects motion, visible from long distance

**BASIC OPERATION**
Whether factory or field installed, new installation or retrofit, Leviton fixture mounted sensors provide fast, easy installation and immediate energy savings by automatically activating lighting only during periods of occupancy. Reliable passive infrared (PIR) technology detects occupancy, and the variable time delay—up to 30 minutes—is user accessible without power, tools or disassembly, and allows the ideal setting based on application needs. Included with the sensor are lenses for high-bay and low-bay, allowing one unit to cover a variety of applications. The innovative Autocal feature performs an automatic daylight level calibration. Once calibrated, the sensor requires no further adjustment and immediately enters daylighting mode, actively switching the connected fixture load ON and OFF in response to occupancy and available natural light maximizing energy savings through efficient light harvesting.

- The OSFHP includes an active daylight sensor and controls a single load (also available in a 24V Low Voltage Model)
- The OSFHD features dual relays with independent time delay circuits, in addition to active daylight sensor
- The OSFHD-xAW features dual alternating relays (daylight sensor not included on these models), to maintain optimal lamp life in fixtures designed to keep a portion of the lamps on at all times
- The HB011 features daylighting and demand response and includes a single relay for 0-10VDC sinking for direct connection to low voltage control ballast
- Cold storage and 480V models are available (OSFHP/OSFHD)

**INSTALLATION**
The OSFHP, OSFHD and HB011 installs directly to an industrial fluorescent fixture or an electrical junction box through a standard 1/2” knockout using the provided lock-nut. Wiring is connected inside the fixture body. For deep body fixtures, the OSFLO or OSFOA accessory installs into the fixture 1/2” knockout using the provided lock-nut. The OSFHP, OSFHD and HB011 sensors are installed in one of three, 1/2” punch-outs positioning the OSFHU at the correct field-of-view position flush or below the fixture reflector assembly. Wiring is routed through the OSFLO or OSFOA to the fixture body for wiring.
PRODUCT DATA

FEATURES

• Rotating light sensor: optimal for best performance in locating light measurements (up, down and side lighting)
• Auto calibration: set to auto-calibration, light sensor measures lowest light level of facility with all lights ON for 24 hours to determine the Daylighting Set Point
• Manual calibration: optimize energy savings and operation by manually configuring the Daylighting Set Point
• Performance daylighting: enhanced design algorithms to assure lights will not cycle during cloud cover, or varying light levels. (No more daylight = load will turn OFF in +/- 5 minutes, Daylight returns = load will turn ON +/- 1 minute).
• Fast and simple setting: the OSFHP, OSFHD and HB011 do not require power to set the time delay saving valuable time during installation
  - Load 1 = 30s-30m
  - Load 2 = 30s-infinity (starts after load 1 expires)
• Fast and simple testing: the OSFHP and OSFHD will “instant ON” within 5 seconds. Upon initial power, relay is closed enabling labor savings testing in seconds.
• Power interruption state: for energy savings and safety, if power is lost to device, it will return to last known state
• Fast, simple installation: the OSFHP, OSFHD and HB011 sensors easily installs on individual fixtures using standard 1/2” knockouts and the quicksnap feature which eliminates the time to tighten the lock-nut. The 42” wire leads reduce time and materials for connecting the ballast. Simply make the electrical connections inside the ballast compartment, install the appropriate adjustable lens assembly included, and the sensor is ready. Ideal for use in warehouses, manufacturing, cold storage and other high ceilings.
• Zero crossing circuitry: relay uses a zero crossing circuitry to provide reliable, long-life operation
• Range and coverage: the 360° high-bay PIR lens provides a 2:1 spacing to mounting height coverage under 25 ft. mounting and a 1.5:1 for heights up to 40 ft. mounting. The 360° low-bay lens provides 2:1 spacing to mounting height coverage for 8 ft. to 20 ft. mounting.
• LED: super bright green LED indicates occupancy detection and can be seen at 40 feet
• False detection protection: Energy saving technology is designed into the OSFHP and OSFHD to assure your lights are on only when needed

FIELD-OF-VIEW

High-Bay 360°
Top View

Low-Bay 360°
Top View

Side View

Side View
OPEN LOOP

Off Trigger Point
Lights Turn Off

On Trigger Point
Lights On

On Time
Noon

Off Time
Dusk

CLOSED LOOP

Lights On
Dawn

Lights Off
Calibrated DDL

1X Lights Only
Noon

2.5X Lights Only
Dusk

120-347V - Wiring Diagram

Hot (Black)

Line
120-347 VAC, 50/60 Hz

Neutral (White)

Load

Black

White

Red

Sensor

1480V - Wiring Diagram

Hot (Black)

Line
480 VAC, 50/60 Hz

Load

Red

Black

Sensor

Low Voltage Wiring Diagram

Hot (Black)

Line
120-347 VAC, 50/60 Hz

Neutral (White)

Red (24VDC)

Black

Blue

Gray

Blue

Red

Black

Sensor

To HVAC System

Alternating & Dual Relay Wiring Diagram

Hot (Black)

Line
120-347 VAC, 50/60 Hz

Neutral (White)

Black

Blue

Black

Red

White

Load

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**PRODUCT DATA**

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<th>SPECIFICATIONS</th>
<th>120-347V and 480V Models</th>
<th>Low Voltage 24V Models (-ILW)</th>
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<tr>
<td><strong>ELECTRICAL</strong></td>
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<tr>
<td>Input Voltage</td>
<td>120-230-277-347VAC; 240/480VAC (-I4W models)</td>
<td>24VAC/VDC</td>
</tr>
<tr>
<td>Operational Frequencies</td>
<td>50/60 Hz</td>
<td></td>
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<tr>
<td>Load Rating</td>
<td>Fluorescent Ballasts: 800VA @ 120VAC Ballast 1000VA @ 230VAC Ballast 1200VA @ 277VAC Ballast 1500VA @ 347VAC Ballast 2000VA @ 480VAC Ballast Motor: 1/4 HP Load @ 120V</td>
<td>Input: 20mA Output: 120mA HVAC: 1A, 30VDC</td>
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<tr>
<td>Minimum Load</td>
<td>No Requirement</td>
<td>HVAC Form C N/O, N/C</td>
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<tr>
<td>Output Channels</td>
<td>Latching Relay</td>
<td></td>
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<tr>
<td>Time Delay</td>
<td>Load 1: 30s-30m Load 2: 0-infinity (starts after Load 1 expires)</td>
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<tr>
<td>Wire Designation</td>
<td>Line-Black, Load-Red, Neutral-White</td>
<td>OCC=Blue, PH=Gray, HVAC=Brown</td>
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<tr>
<td><strong>ENVIRONMENTAL</strong></td>
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<tr>
<td>Operating Temperature Range</td>
<td>14-160° F (-10-71° C)</td>
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<tr>
<td>Cold Storage Temperature Range</td>
<td>-40-160° F (-40-71° C)</td>
<td></td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>0% to 90% non-condensing</td>
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<tr>
<td><strong>OTHER</strong></td>
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<td></td>
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<tr>
<td>Agency Listings</td>
<td>UL 916, CSA 22.2 No. 205 M1983, FCC Certified, can be used to comply with 2016 Title 24, Part 6 occupancy sensing requirements</td>
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<tr>
<td>Warranty</td>
<td>Limited 5-Year</td>
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**ORDERING INFORMATION**

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<tr>
<th>CAT. NO.</th>
<th>DESCRIPTION</th>
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<tr>
<td>HB011-PDD</td>
<td>PIR Fixture Mount High-Bay Sensor with Daylight Harvesting, Demand Response, 120/277V</td>
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<tr>
<td>HB011-P3E</td>
<td>PIR Fixutre Mount High-Bay Sensor with Daylight Harvesting, Demand Response, 347V</td>
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<td>HB011-PDX</td>
<td>PIR Fixture Mount High-Bay Sensor with Daylight Harvesting, 120-277V</td>
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<tr>
<td>OSFHP-ITW</td>
<td>PIR Fixture Mount High-Bay Sensor with Light Sensor, 120-277V, 20mA</td>
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<tr>
<td>OSFHP-I4W</td>
<td>PIR Fixture Mount High-Bay Sensor with Light Sensor, 480V, 45MA</td>
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<tr>
<td>OSFHP-ILW</td>
<td>PIR Fixture Mount High-Bay Sensor with Light Sensor, 24V, 20mA</td>
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<tr>
<td>OSFHD-ITW</td>
<td>PIR Fixture Mount High-Bay Sensor with Light Sensor, Dual Relay</td>
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<tr>
<td>OSFHD-CTW</td>
<td>PIR Fixture Mount High-Bay Sensor with Light Sensor, Dual Relay, Cold Storage</td>
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<tr>
<td>OSFHD-IAW</td>
<td>PIR Fixture Mount High-Bay Sensor with Light Sensor, Alternating Relay</td>
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<tr>
<td>OSFHD-CAW</td>
<td>PIR Fixture Mount High-Bay Sensor with Light Sensor, Alternating Relay, Cold Storage</td>
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<tr>
<td>OSFOA-00W</td>
<td>Offset Adapter Accessory for OSFHU, 3 Position, White</td>
</tr>
<tr>
<td>OSFLO-00W</td>
<td>Offset Adapter Accessory for OSFHU, 1 Position, White</td>
</tr>
<tr>
<td>OSFCG</td>
<td>Protective Cage for Fixture Mount Sensors</td>
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*All OSFHP and OSFHD models ship with two interchangeable lenses and an aisle mask.*

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