Infrared Ceiling Mounted Occupancy Sensor
California Title 20 Compliant
Cat. Nos. ODC024-10W, ODC018-10W
No Minimum Required Load

Incorporates a high sensitivity, ceiling mounted infrared occupancy sensor that is capable of turning the lights ON or OFF based on movement. The sensor automatically learns the usage pattern for each space and adjusts the light output accordingly. It is especially suited for spaces with high ceilings, such as open industrial environments, model airplanes, and retail stores. The sensor is designed to integrate into any lighting control system and is also compatible with Leviton’s Readywire® system.

WARNINGs: TO AVOID FIRE, SHOCK, OR DEATH, TURN OFF POWER AT CIRCUIT BREAKER OR FUSE AND TEST THAT POWER IS OFF BEFORE WORKING.

To be installed and used in accordance with appropriate electrical codes and regulations. If you are unsure about any part of this information, consult an electrician.

• Sensors must be mounted at least 6 feet away from air vents, handrails, and reflective surfaces.
• Do not touch the surface of the lens.
• Do not use this equipment for other than the intended use.

SAVE THESE INSTRUCTIONS

All servicing shall be performed by qualified service personnel. If any Emergency Circuits are fed or controlled from this panel, it must be located electrically where fed from a UPS, generator, or other guaranteed source of power during emergencies and power outage situations.

DO NOT use this equipment for other than the intended use.

f)

The use of accessory equipment not recommended by manufacturer may cause an unsafe condition.

DO NOT mount near gas or electric heaters.

e)

For Occupancy Sensors installed to control Emergency Lighting Equipment:

1. Wiring Sensor
2. Occupancy Pattern Learning for Infrared Technology
3. AUTO ADAPTING

AUTO ADAPTING

The Sensor continually analyzes the parameters of the motion detection signal and adjusts its internal operation to maximize detection of motion while minimizing the amount of light energy consumed. The walk-through feature works as follows: When a person enters the room, the lights will automatically turn ON. If the person leaves the room before the default walk-through time expires, the lights will remain ON for a maximum of 5 minutes, and then automatically turn OFF. If the person leaves the room after the default walk-through time expires, the lights will remain ON until the next input from the sensor or switch input.

PHOTOCELL AND DAYLIGHTING OPERATIONS

Daylight harvesting is used for additional energy savings. The photocell holds the lights OFF with significant amount of light energy from the daylight as natural light. Typical light levels are measured in foot-candles or lux, and average office areas are designed to utilize 50-60 foot-candles or lux, as needed. The sensor automatically adjusts the light output based on the available light level from the windows or skylights, along with a minimal amount of artificial light from the lights it is controlling.

CALIBRATION

After the sensor is installed, the photocell must be configured correctly to maintain the desired light level and gain additional energy savings. To achieve this, the install should first need to understand Closed and Open Loop Daylighting, then decide which application is best for the customer's needs before configuring and calibrating the device.

• Open Loop: When a photocell (light pipe) is focused on an area which is primarily illuminated by natural light from windows or skylights, along with a minimal amount of artificial light from the lights it is controlling. USE: The angled light pipe for Open Loop applications. Open Loop MUST be used only with Manual Switch selection. If the sensor detects light pipe signals, it will not enter Automatic Calibration Mode if Open Loop Daylighting is selected.

• Closed Loop: When a photocell (light pipe) is focused on an area which is primarily illuminated by artificial light from the lights it is controlling. USE: The flat light pipe for Closed Loop applications.
LED INDICATORS

- **RED** - Blinks upon PIR detection. Can be disabled by moving B4 to ON (See Table 2).
- **GREEN** - Solid for 24 hours during photocell manual calibration.
- **YELLOW** - Blinks in test mode.
- **BLUE** - Solid with emergency interface/BMS input on.
- **LED blinks BLUE when the knob setting has changed.**
- **LED blinks RED (3 minutes).**
- **LED blinks RED for longer than 5 minutes, device malfunction.**
- **Lights turn OFF**
- **Lights turn ON**
- **Lights do not turn ON**
- **Lights stay ON**
- **LEDs State LEDs Enabled**
- **Reset Device State**
- **Forced State**
- **Override Enabled (B2)**
- **Pir Sensitivity Selection**
- **PIR Sensitivity Selection (Red Knob)**
- **PIR Sensitivity Selection (Black Knob)**
- **Auto Adapting Enabled**
- **Delayed - Off Time**
- **Delayed - LED On Time**
- **Closed Loop**
- **Open Loop**
- **Uncontrolled Mode**
- **Blinks when the knob setting has changed.**
- **Solid with emergency interface/BMS input on.**
- **Solid for 3 minutes then blinks for 3 minutes during photocell manual calibration.**
- **Solid when device malfunction.**
- **Factory Default**
- **Disabled**
- **Normal**
- **Override Enabled (B2)**
- **Infrared sensor can “see” into hallway.**
- **Timer setting too high.**
- **LED illuminates solid RED for longer than 5 minutes, device malfunction.**
- **Contact technical assistance.**
- **Troubleshooting**

**TABLE 1 : ADJUSTMENT KNOB SETTINGS**

<table>
<thead>
<tr>
<th>Knob Color</th>
<th>Symbol</th>
<th>Function</th>
<th>Knob Setting</th>
<th>Factory Default Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td></td>
<td>Set the infrared range</td>
<td>Range setting (60 sec)</td>
<td>50% (10 min)</td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td>Set the delay time for OFF</td>
<td>Full CW = max (5 min)</td>
<td>30 sec (1 min)</td>
</tr>
<tr>
<td>Blue</td>
<td></td>
<td>Set the light level for OFF</td>
<td>Full CW = max (16 sec)</td>
<td>100% (10 min)</td>
</tr>
</tbody>
</table>

**TABLE 2 : SWITCH SETTINGS**

<table>
<thead>
<tr>
<th>Switch</th>
<th>ON</th>
<th>OFF</th>
<th>AUTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Manual</td>
<td>Noir (switch enabled)</td>
<td>Manual (switch enabled)</td>
</tr>
<tr>
<td>B</td>
<td>Walk Through</td>
<td>Walk Through Enabled</td>
<td>Walk Through Disabled</td>
</tr>
<tr>
<td>C</td>
<td>Standard</td>
<td>Standard (with switch)</td>
<td>Standard (with switch)</td>
</tr>
<tr>
<td>D</td>
<td>Standard (with switch)</td>
<td>Standard (with switch)</td>
<td>Standard (with switch)</td>
</tr>
<tr>
<td>E</td>
<td>LED illuminated</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td>F</td>
<td>Daylight detecting</td>
<td>OFF</td>
<td>Daylight detecting</td>
</tr>
</tbody>
</table>

**Figure 6** - (Cat. No. ODCD04) Field-of-View Ranges
High density lens (blue frame), mounting height (8-12 ft)

**Figure 7** - (Cat. No. ODCD15) Field-of-View Ranges
Extended range lens (black frame), mounting height (8-12 ft)

**Figure 8** - (Mid-Range Lens) Field-of-View Ranges
Mid range lens (red frame), mounting height (13-20 ft)

**Note:** This lens is included with all PIR models.