

# Provolt™ Series Passive Infrared (PIR) Occupancy Sensors



Light Pipe



## DESCRIPTION

The Leviton Provolt™ Series combines line voltage occupancy sensors and photocells into a self-contained unit. The integrated design alleviates the need for separate power pack and occupancy sensor wiring making it a low-cost, efficient energy solution for new construction and retrofits. For true daylight harvesting applications, integrated photocells provide consistent daylight design levels by actively switching the connected load(s) ON and OFF in response to available natural light to maximize energy savings. Vacancy timers continually analyze and adjust to changing conditions using the latest microprocessor-based technology to optimize performance. Auto-ON/auto-OFF automatically turns lights ON and keeps them ON when occupancy is detected and automatically turns lights OFF when the space is vacant or unoccupied. Wire terminals allow for simple connection to a line-voltage circuit and are ideal for existing buildings with limited access to wiring and new construction.

## APPLICATIONS

- Can be used to comply with ASHRAE 90.1 and 2016 Title 24, Part 6 occupancy/vacancy sensing, automatic shut off and daylight harvesting requirements
- Auto-ON/auto-OFF
- Manual-ON/auto-OFF

## FEATURES

- Uses industry-exclusive digital (4 element) PIR circuitry for fewer false triggers from unwanted sources such as HVAC systems
- A Fresnel lens establishes dozens of detection zones requiring the heat source to move from one zone to another to trigger the sensor
- Auto-adapting: time delay and sensitivity are continually adjusted to occupancy pattern of use
- Configurable for manual- ON/auto-OFF or auto-ON/auto-OFF

- Vacancy Sensing Time Outs:
  - Delayed OFF timer: the sensor will turn lights OFF if no motion is detected after a specified time
  - Exclusive walk-through feature: provides increased energy savings by not leaving the lights ON for an extended period after only momentary occupancy
  - False Detection Timer: (M/T) the PIR scans for movement and shuts lights off after 31 minutes preventing false triggers from HVAC systems
- Output short circuit protection
- Industry-exclusive self-configuring local manual switch input: momentary or maintained switches are supported
- Presentation mode feature for slide or film presentations allows push buttons to turn lights OFF and keep them OFF while the room is occupied
- Adjustable time delay: 30s, 5min, 10min, 20min, 30min
- Test mode for simplified commissioning
- Manual Switch and Emergency Override are Class 1 and Class 2 circuits. Class 2 circuits provided for flexibility.
- Industry-exclusive “fail-safe” circuitry: in the event of product failure, Return-to-Closed feature causes the relay to default ON which eliminates life safety concerns
- Industry-exclusive H.I.S. (High Inrush Stability) technology designed to handle today’s high in-rush electronic ballast loads and offer matched durability and service



## PRODUCT DATA

### FEATURES

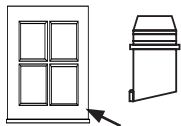
- Robust and reliable mechanically held 8A latching relay provides dependability and robust performance for all load types and provides energy savings over electronically held relays
- Field of view: units from 450 to 1,500 square feet available
- Lenses are easily replaceable and color-coded blue (high-density) and red (mid-range) for contractors and end-users to easily identify lenses from the ground
- Visual LED indicators for all states:
  - Red—blinks when infrared is detecting motion and during photocell manual calibration; solid during device malfunction
  - Yellow—blinks during test mode; solid with emergency/BMS input
  - Blue—blinking light indicates photocell override

### RATINGS AND TESTING

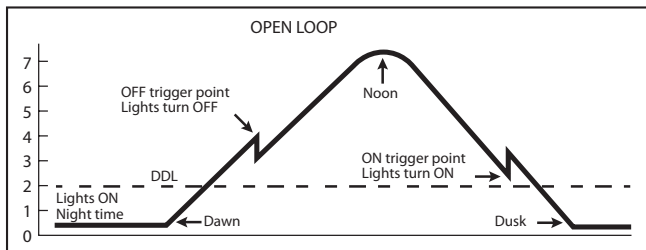
- Factory-calibrated, zero-crossing circuitry for extended life of the relay
- Tested to exceed 1 million switching cycles under standard loads
- Multiple compliance and regulatory UL testing -consult factory for details
- Passed rigorous NEMA 410 testing for electronic ballast rating
- BMS Input/Emergency Override: UL 924 listed for emergency and egress lighting control

### PHOTOCELL OPERATION

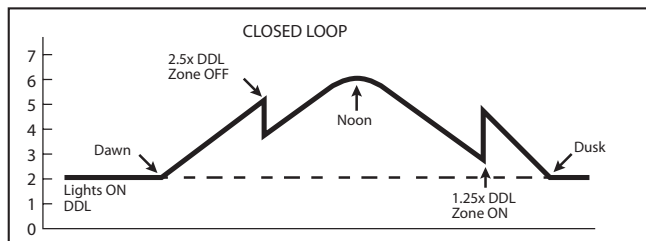
#### Open Loop - Angled Light Pipe



Note: Long side of angled light pipe must face toward natural light source (window)



#### Closed Loop - Flat Light Pipe



### Photocell Features

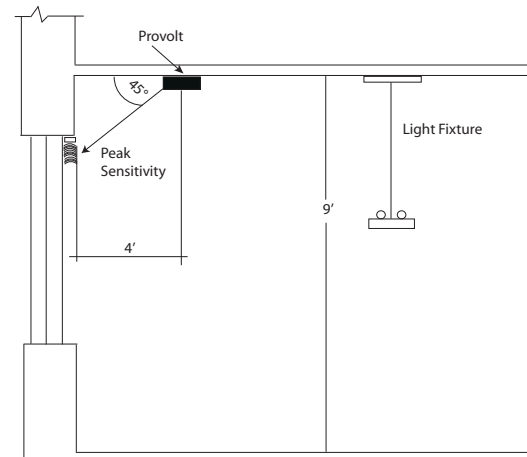
- Daylight harvesting applications:
  - Auto calibration (automatic daylight calibration): photocell intelligently measures light levels to determine optimal daylight design levels for closed loop applications
  - Closed Loop: photocell detects total photometric light from daylight or electric sources in the space
- Open Loop: photocell detects daylight or electric light only; requires manual calibration
- Adjustable Daylight Design Levels: Normal (OFF), Manual (ON/OFF) and Auto Calibration
- Blue blinking light indicates photocell override
- Integrated photocell tested to less than 1 Fc accuracy
- Open and closed loop photocell included

### INSTALLATION

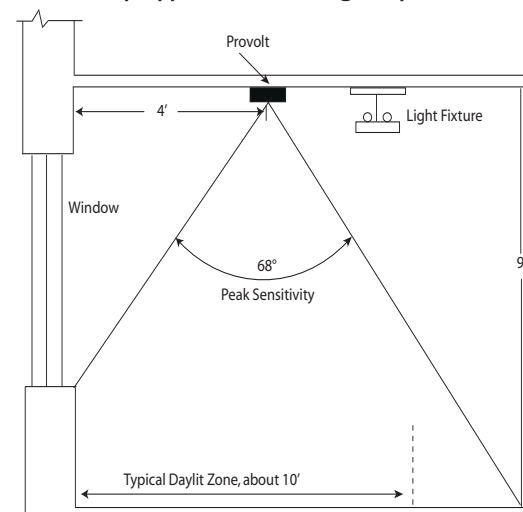
- Easy installation into junction boxes with Leviton-exclusive screw guides, coasters and terminal blocks
- Front cover snaps on and off for ease of installation

### PHOTOCELL PLACEMENT\*

#### Open Loop Application - Angled Light Pipe



#### Closed Loop Application - Flat Light Pipe

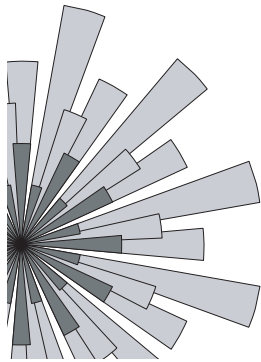


\*May require more than one occupancy sensor for total room coverage

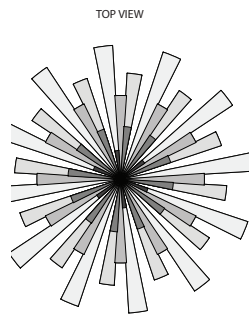
**PRODUCT DATA**

**FIELD OF VIEWS**

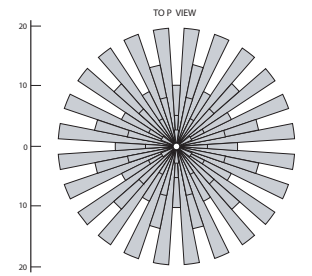
▷ VIEW



ODC04-IDW  
(High Density Lens - Blue)

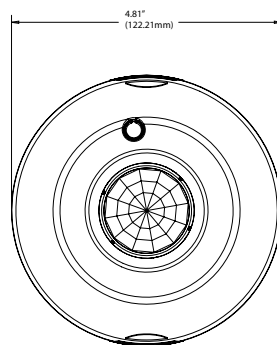
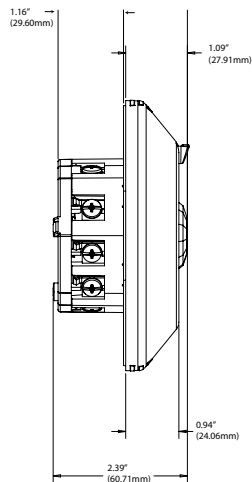


SIDE VIEW  
Mid-Range Lens (mounting up to 20 feet, included with all PIR and Multi-Tech Models)

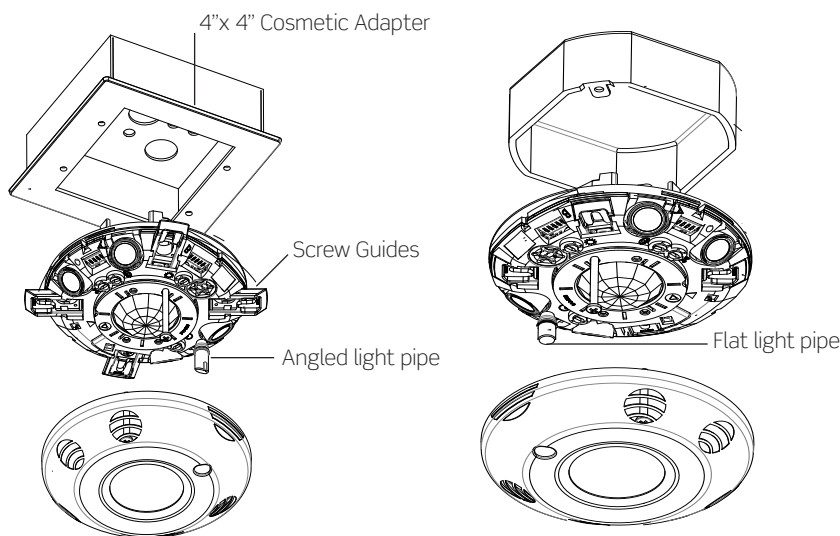


SIDE VIEW  
ODC15-IDW  
(Extended Range Lens - Black)

**DIMENSIONS**



**INSTALLATION**



Sensors conveniently mount to a standard 4" x 4" square or octagon electrical box per NEC standards.

**Leviton Manufacturing Co., Inc. Global Headquarters**

201 North Service Road, Melville, NY 11747-3138 **tech line** 800-824-3005 **fax** 800-832-9538  
©2017 Leviton Manufacturing Co., Inc. All rights reserved. Subject to change without notice.

**PRODUCT DATA****SPECIFICATIONS**

<b>ELECTRICAL</b>			
<b>Input Voltage</b>	120V, 50/60Hz	230V, 50/60Hz	277V, 50/60Hz
<b>Load Rating</b>	8A, Electronic Ballast, 800W/VA, Tungsten, Ballast, 1/4 HP Motor	6A/6AX, Electronic Ballast, Magnetic Ballast, 1200W/VA, 1/3 HP Motor	5A, Electronic Ballast, 1200VA, 1/3 HP Motor
<b>Current Consumption</b>	60-30ma		
<b>ENVIRONMENTAL</b>			
<b>Operating Temperature</b>	32-104° F (0-40° C)		
<b>Storage Temperature</b>	15-160° F (-26-71° C)		
<b>Relative Humidity</b>	0-90% non-condensing		
<b>OTHER</b>			
<b>Listings</b>	Can be used to comply with ASHRAE 90.1 and 2016 Title 24, Part 6 occupancy/vacancy sensing and daylight harvesting requirements, UL 773A (Occupancy Standard), UL 924 (Emergency Equipment), cUL Listed, CE compliant, NOM Certified, RoHS compliant, NY LLC48 compliant		
<b>Warranty</b>	5-Year Limited Warranty		

**ORDERING INFORMATION**

<b>CAT. NO.</b>	<b>DESCRIPTION</b>
<b>ODC04-IDW</b>	Line Voltage, Ceiling, PIR Sensor 450sqft, 120-277V, high-density lens installed, open and closed loop photo cell included, mid-range lens included, meets energy code requirements for CA Title 24
<b>ODC15-IDW</b>	Line Voltage, Ceiling, PIR Sensor 1,500sqft, 120-277V, extended range lens installed, open and closed loop photo cell included, mid-range lens included, meets energy code requirements for CA Title 24

**Leviton Manufacturing Co., Inc. Global Headquarters**201 North Service Road, Melville, NY 11747-3138 **tel** 800-323-8920 **fax** 800-832-9538 **tech line** (8:30AM-7:00PM ET Mon-Fri) 800-824-3005**Leviton Manufacturing Co., Inc. Energy Management, Controls and Automation**20497 SW Teton Avenue, Tualatin, OR 97062 **tel** 800-736-6682 **fax** 503-404-5594 **tech line** (6:00AM-4:00PM PT Mon-Fri) 800-959-6004**Visit our Website at: [www.leviton.com/provolt](http://www.leviton.com/provolt)**

©2017 Leviton Manufacturing Co., Inc. All rights reserved. Subject to change without notice.