

Provolt™ Series Ultrasonic (U/S) 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

- Utilizes sensors which emit non-audible sound waves and sense movement. Any movement within the sensor's field-of-view causes a shift in the original emitted frequency.
- The sensor identifies the change as movement and controls light accordingly.
- U/S models are immune to external ultrasonic signals from other sources such as whiteboards delivering uninterrupted performance
- 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
 - Time delay and saved settings are protected during power outages and will return to the last known state
- 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 or 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 inrush electronic ballast loads and offer un-matched durability and service



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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 500 to 2,000 square feet available
- Visual LED indicators for all states:
 - Green—blinks during U/S detection and is solid during auto-calibration
 - Yellow—blinks during test mode; solid with emergency/BMS input
 - Blue—blinks when knob settings are changed and during photocell override

RATINGS AND TESTING

- 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
- Meets Energy Star® requirements for ultrasonics

Photocell Features

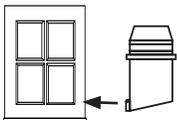
- Daylight harvesting applications:
 - Auto-calibration (automatic daylight calibration): photocell intelligently measures light levels to determine optimal daylight design levels for closed loop applications
 - Closed Loop: photocell detects total photometric light from natural light or electric sources 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
- Integrated photocell tested to less than 1 Fc accuracy
- Open and closed loop photocell included

INSTALLATION

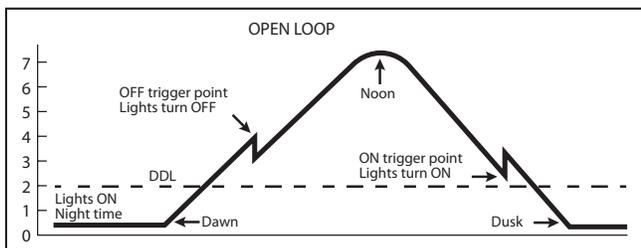
- Easy installation into junction boxes with Leviton-exclusive screw guides, coasters and terminal blocks
- Front cover snaps on and off for ease of installation

PHOTOCELL OPERATION

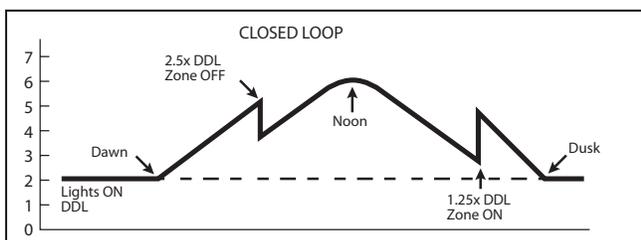
Open Loop - Angled Light Pipe



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

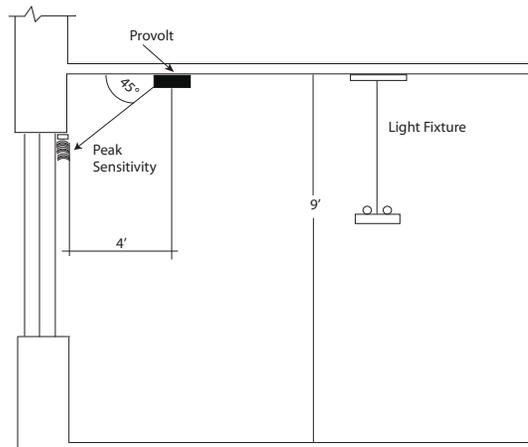


Closed Loop - Flat Light Pipe

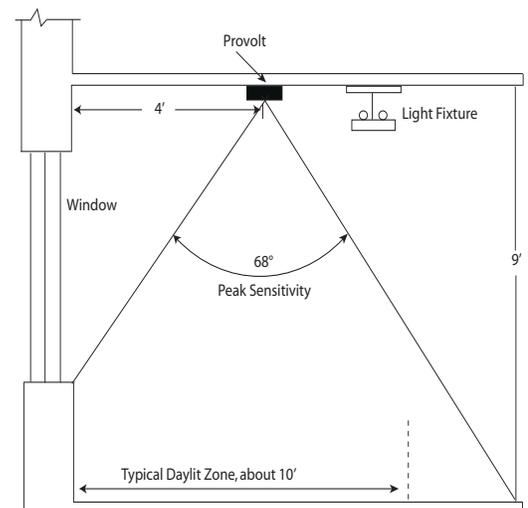


PHOTOCELL PLACEMENT*

Open Loop Application - Angled Light Pipe

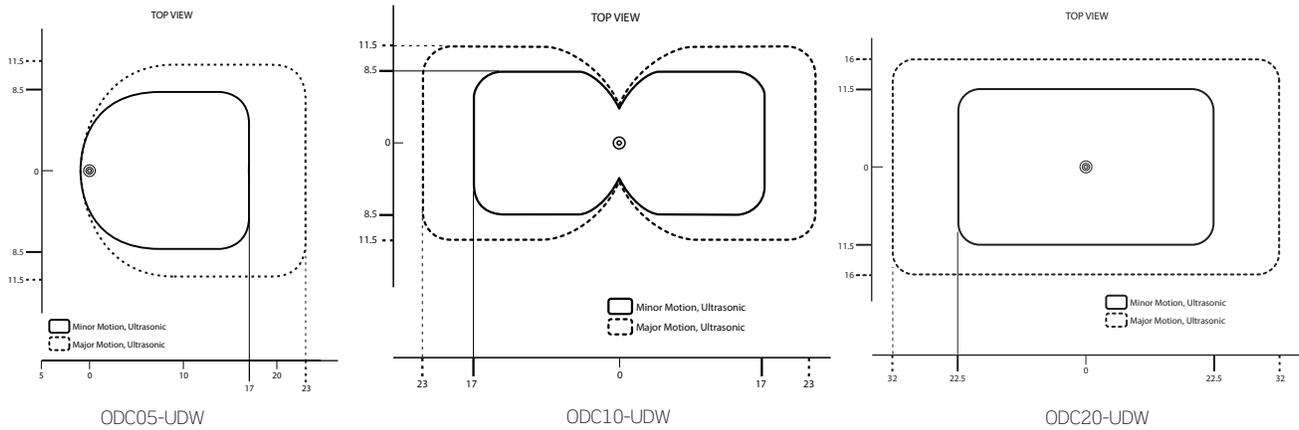


Closed Loop Application - Flat Light Pipe

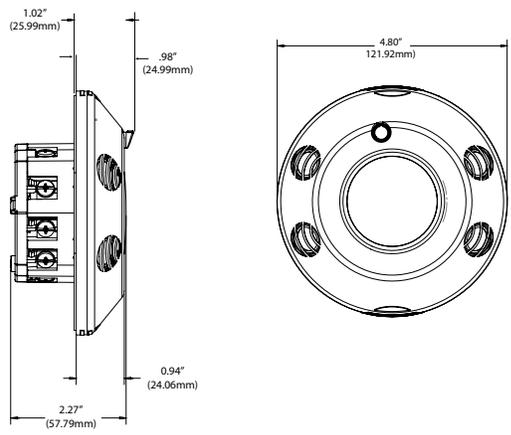


*May require more than one occupancy sensor for total room coverage

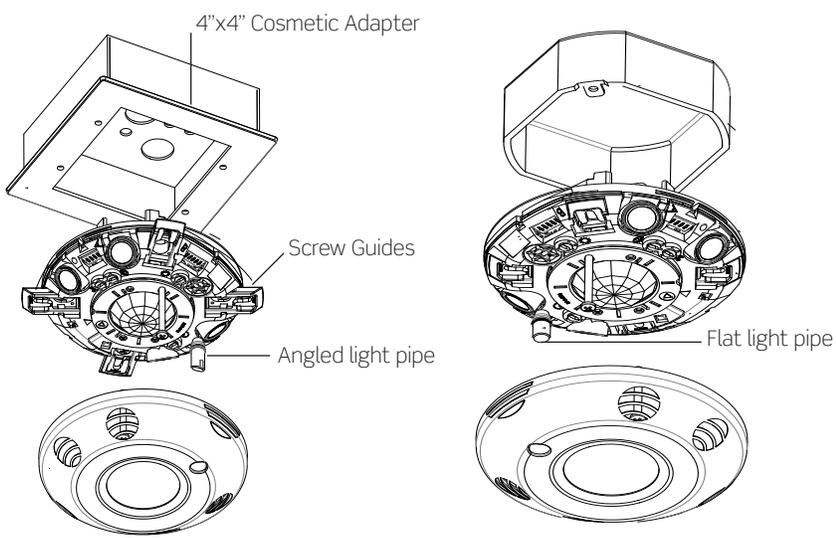
FIELD OF VIEWS



DIMENSIONS



INSTALLATION



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

Provolt™ Series Ultrasonic Occupancy Sensors

PRODUCT DATA

SPECIFICATIONS

ELECTRICAL			
Input Voltage	120V, 50/60Hz	230V, 50Hz	277V, 50/60Hz
Load Rating	8A, Electronic Ballast, 800W/VA, Tungsten, Ballast, 1/4 HP Motor	6A/6AX, Electronic Ballast, Magnetic Ballast, Tungsten 1200W/VA, 1/3 HP Motor	5A, Electronic Ballast, 1200VA, 1/3 HP Motor
Current Consumption	60-30ma		
ENVIRONMENTAL			
Operating Temperature	32-104° F (0-40° C)		
Storage Temperature	15-160° F (-26-71° C)		
Relative Humidity	0-90% non-condensing		
OTHER			
Listings	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, UL 773A (Occupancy Standard), UL 924 (Emergency Equipment), cUL Listed, CE compliant, NOM Certified, RoHS compliant, NY LLC48 compliant		
Warranty	5-Year Limited Warranty		

ORDERING INFORMATION

CAT. NO.	DESCRIPTION
ODC05-UDW	Line Voltage, Ceiling, U/S Sensor 500sqft, 120-277V, extended range lens installed, open and closed loop photocell included, meets energy code requirements for CA Title 24
ODC10-UDW	Line Voltage, Ceiling, U/S Sensor 1,000sqft, 120-277V, extended range lens installed, open and closed loop photocell included, meets energy code requirements for CA Title 24
ODC20-UDW	Line Voltage, Ceiling, U/S Sensor, 2,000sqft, 120-277V, extended range lens installed, open and closed loop photocell included, meets energy code requirements for CA Title 24

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