

O2C Dual Relay Ultrasonic Occupancy Sensors



Light Pipe



DESCRIPTION

The Leviton O2C Dual Relay Occupancy Sensors combine 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

- Daylight Harvesting
- CA Title 20/24 Compliant Occupancy Sensor
- Auto-ON/Auto-OFF
- Manual-ON/Auto-OFF
- Dual Relay Modes Include:
 - Fan Control
 - Auto ON/Manual ON
 - Stairwell Control
 - Step Dimming - Alternating Daylighting Levels
 - Step Dimming - Load 1 Primary

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.
- Listen Feature - turns off and on U/S when other U/S is present - white boards, hearing aids, and any other weird tech you may find that could interfere
- Auto-Adapting: Time delay and sensitivity are continually adjusted to occupancy pattern of use
- Vacancy Sensing Time Outs:
 - Delayed OFF Timer
 - Exclusive Walk-through Feature
 - 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 allows user 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 unmatched durability and service

PRODUCT DATA

FEATURES

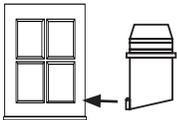
- Robust and reliable mechanically held latching relay provides dependability and robust performance for all load types and provides energy savings over electronically held relays
- Field of View: Units from 500 to 2000 square feet available
- Visual LED indicators for all states:
 - Green - Blinks during 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

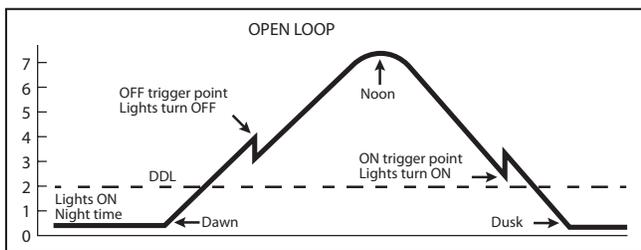
- Zero-crossing circuitry for extended life of the relay
- Tested to exceed 1 million switching cycles under standard loads
- Multiple compliance and regulatory UL testing - consult factory for details
- Passed rigorous NEMA 410 testing for electronic ballast rating
- BMS Input/Emergency Override: UL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

PHOTOCELL OPERATION

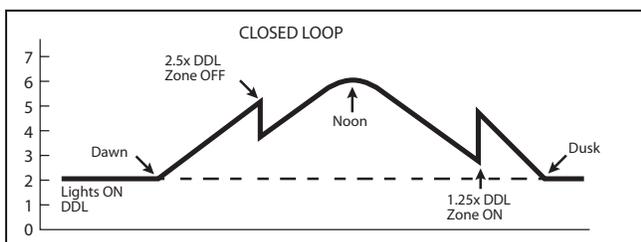
Open Loop - Angled Light Pipe



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



Closed Loop - Flat Light Pipe



Photocell Features

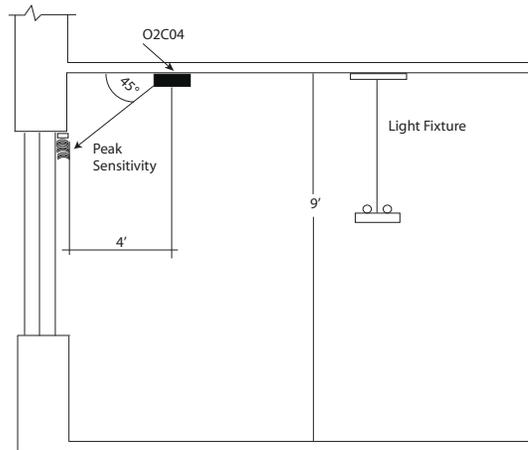
- Daylight Harvesting Applications:
 - Auto-Calibration (Automatic Daylight Calibration): Photocell intelligently measures light levels to determine optimal daylight design levels for closed loop applications
 - Closed loop: Photocell detects total measurement of both natural and artificial light in the space
 - Open loop: Photocell detects measurement of natural light only (sunlight from window or skylight)
- Adjustable daylight design levels: Normal (OFF), Manual (ON/OFF) and Auto Calibration
- Integrated photocell tested to less than 1 Fc accuracy

INSTALLATION

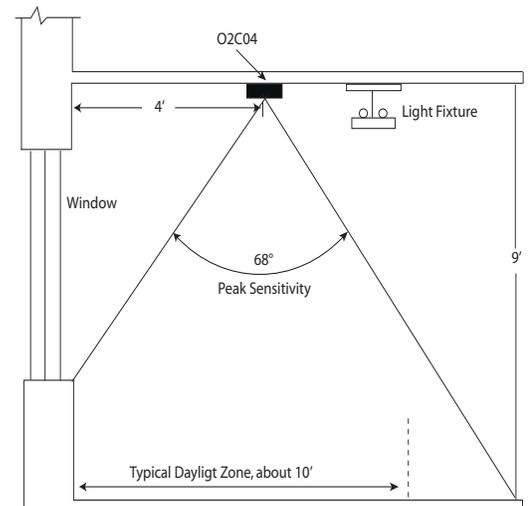
- Easy installation into junction boxes with Leviton-exclusive screw guides, coasters and terminal blocks
- Front cover snaps on and off for ease of installation

PHOTOCELL PLACEMENT*

Open Loop Application - Angled Light Pipe

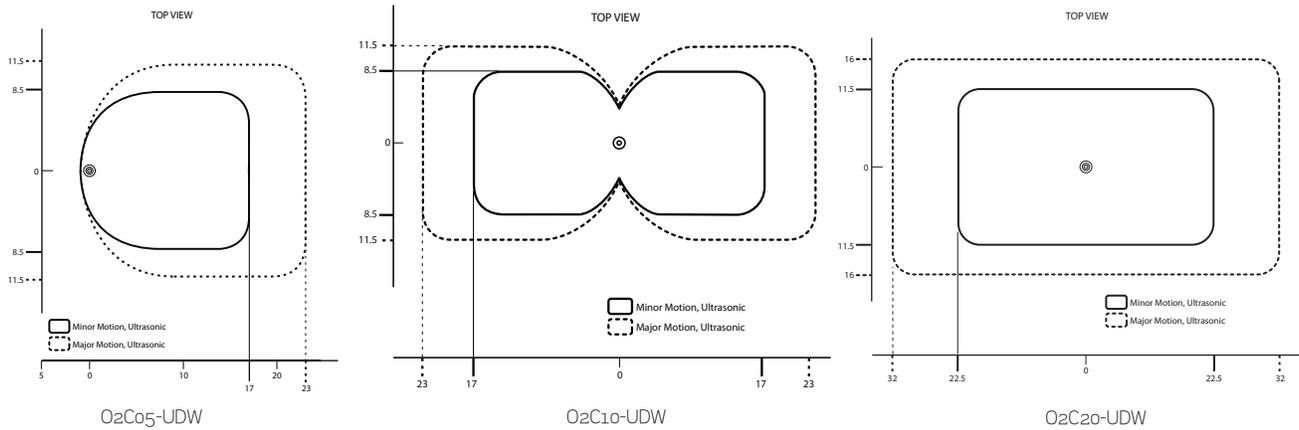


Closed Loop Application - Flat Light Pipe

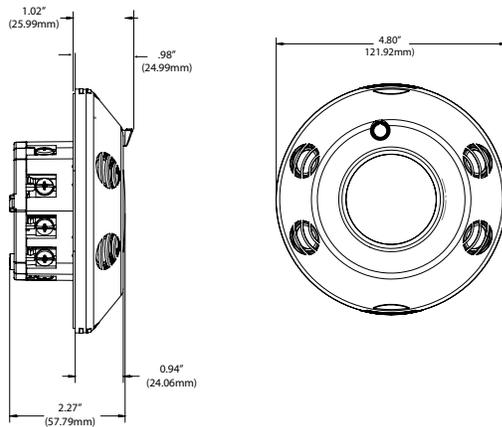


*May require more than one occupancy sensor for total room coverage

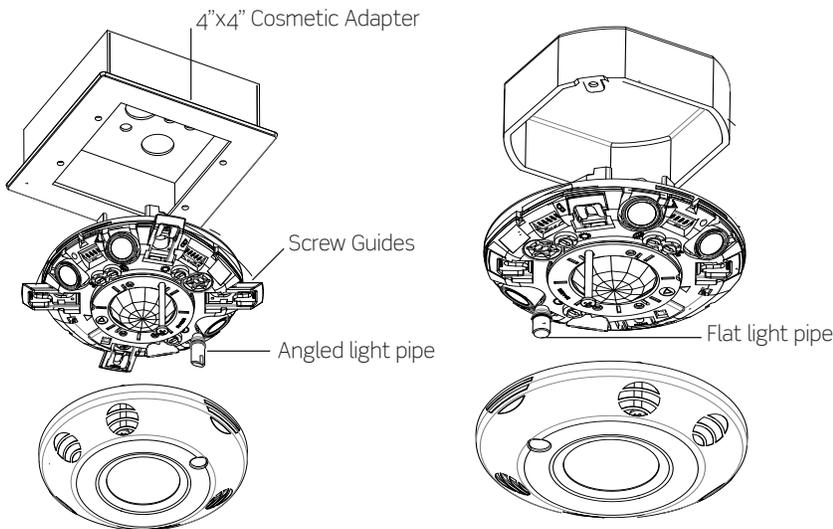
FIELD OF VIEWS



DIMENSIONS



INSTALLATION



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

Leviton Mfg. Co., Inc. Lighting & Energy Solutions

20497 SW Teton Avenue, Tualatin, OR 97062 1-800-736-6682 Tech Line: 1-800-959-6004 Fax: 503-404-5594 www.leviton.com/les
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PRODUCT DATA**SPECIFICATIONS**

ELECTRICAL			
Input Voltage	120V, 50/60Hz	230V, 50Hz	277V, 50/60Hz
Load Rating	8A, Electronic Ballast, 800W, Tungsten, 800VA Ballast, 1/4 HP Motor	6A/6AX, Electronic Ballast, Magnetic Ballast, Tungsten 1/3 HP Motor	5A, Electronic Ballast, 1200VA Ballast, 1/3 HP Motor
Current Consumption	60-30ma		
ENVIRONMENTAL			
Operating Temperature	32° to 104° F (0° to 40° C)		
Storage Temperature	-15° to 160° F (-26° to 71° C)		
Relative Humidity	0% to 90% non-condensing		
OTHER			
Listings	CA Title 20/24 Compliant, 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
O2C05-UDW	Ultrasonic Ceiling Mount Line Voltage Dual Relay Occupancy Sensor w/Integrated Photocell, 500SF, 120-277V, CA Title 20/24 Compliant Extended Range Lens installed
O2C10-UDW	Ultrasonic Ceiling Mount Line Voltage Dual Relay Occupancy Sensor w/Integrated Photocell, 1000SF, 120-277V, CA Title 20/24 Compliant Extended Range Lens installed
O2C20-UDW	Ultrasonic Ceiling Mount Line Voltage Dual Relay Occupancy Sensor w/Integrated Photocell, 2000SF, 120-277V, CA Title 20/24 Compliant Extended Range Lens installed

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