

# ODC Series Multi-Technology (M/T) Occupancy Sensors



Light Pipe



## DESCRIPTION

The Leviton ODC 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

- Daylight Harvesting
- CA Title 20 Compliant Occupancy Sensor
- Auto-ON/Auto-OFF
- Manual-ON/Auto-OFF

## FEATURES

- Sensors combine both PIR and U/S technology for unrivaled performance and reliability. Sensors use PIR technology to initially turn lights ON, and use U/S technology to keep the lights ON. Exclusive false-detection software assures lights are ON only when needed.
- 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
  - 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 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

## PRODUCT DATA

### FEATURES

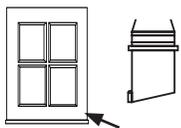
- Industry-exclusive H.I.S. (High Inrush Stability) technology designed to handle today's high inrush electronic ballast loads and offer unmatched durability and service
- Robust and reliable mechanically held 10A latching relay provides dependability and robust performance for all load types and provides energy savings over electronically held relays
- Field of View: Units from 500 to 2000 square feet available
- Lenses are easily replaceable and color-coded red (mid-range) and black (extended 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
  - Green - Blinks when U/S is detected; solid during auto calibration
  - Yellow - Blinks during test mode; solid with emergency/BMS input

### RATINGS AND TESTING

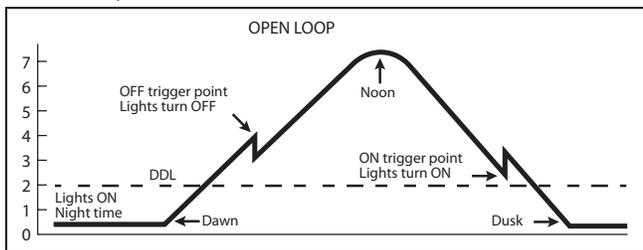
- Zero-crossing circuitry for extended life of the relay
- Tested to exceed 1 million switching cycles under standard loads
- Multiple compliance and regulatory UL testing - consult factory for details
- Passed rigorous NEMA 410 testing for electronic ballast rating
- BMS Input/Emergency Override: UL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

### PHOTOCELL OPERATION

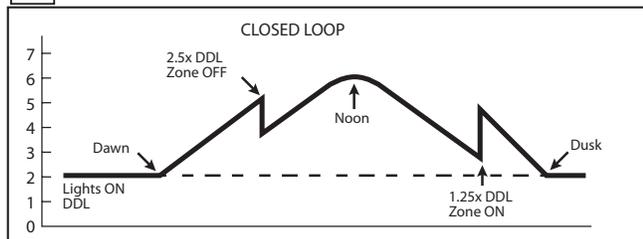
#### Open Loop - Angled Light Pipe



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



#### Closed Loop - Flat Light Pipe



### Photocell Features

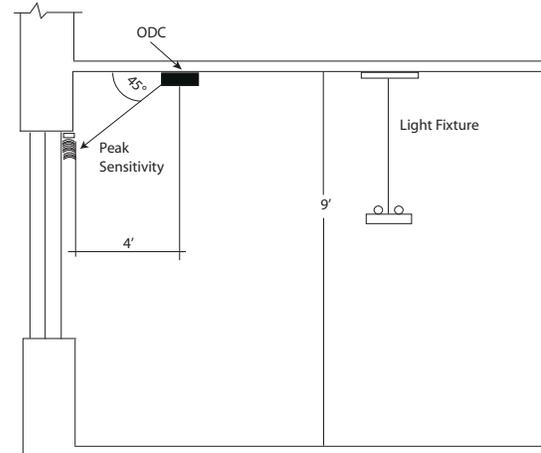
- Daylight Harvesting Applications:
  - Auto-Calibration (Automatic Daylight Calibration): Photocell intelligently measures light levels to determine optimal daylight design levels for closed loop applications
  - Closed loop: Photocell detects total photometric light from daylight or electric sources 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

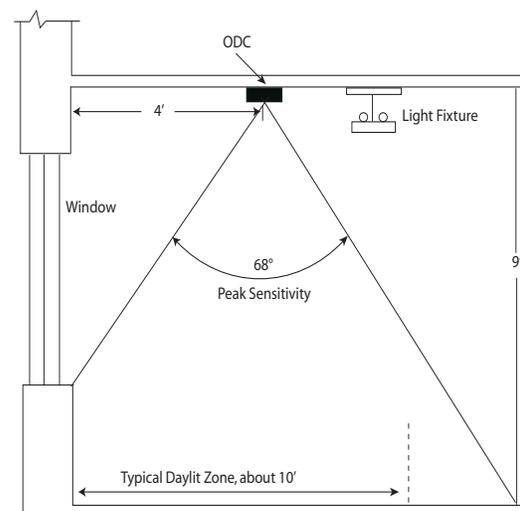
- Easy installation into junction boxes with Leviton-exclusive screw guides, coasters and terminal blocks
- Front cover snaps on and off for ease of installation

### PHOTOCELL PLACEMENT\*

#### Open Loop Application - Angled Light Pipe

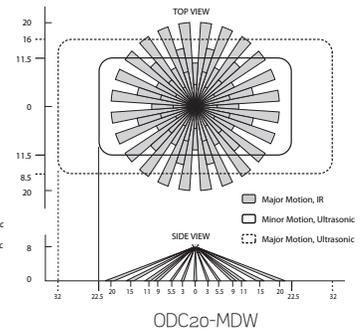
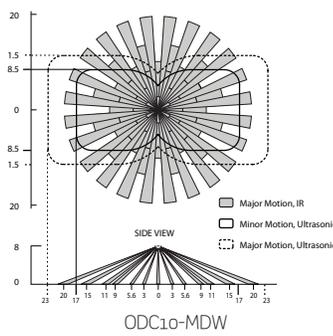
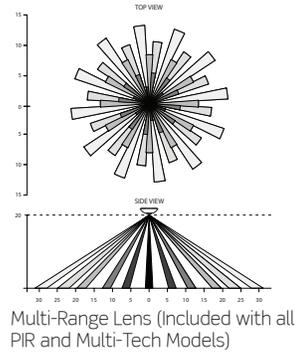
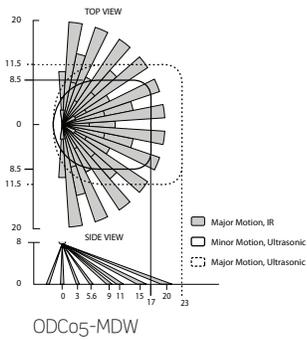


#### Closed Loop Application - Flat Light Pipe

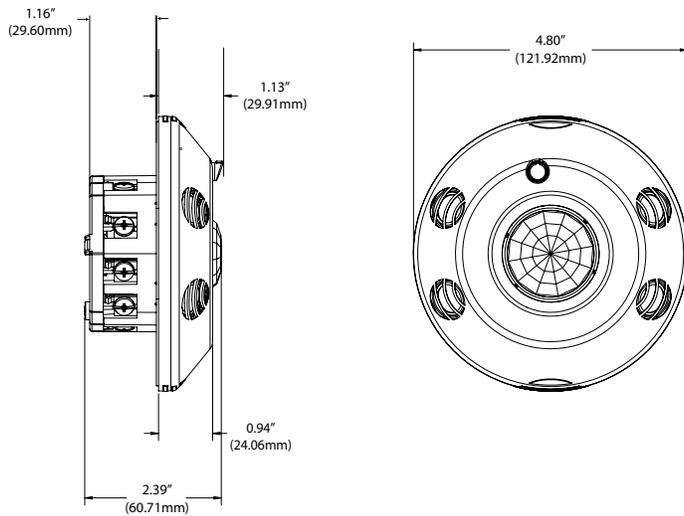


\*May require more than one occupancy sensor for total room coverage

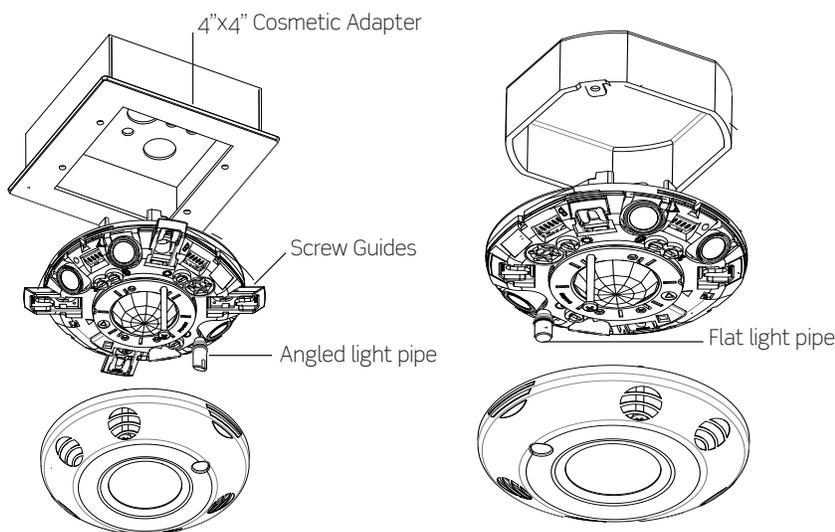
**FIELD OF VIEWS**



**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 © 2013 Leviton Manufacturing Co., Inc. All rights reserved. Subject to change without notice.

**ODC Series Multi-Technology 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, 1200W/VA, 1/3 HP Motor	5A, Electronic Ballast, 1200VA, 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 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
ODC05-MDW	Line Voltage, Ceiling, M/T Sensor 500sqft, 120-277V, Extended Range Lens installed, Open and Closed Loop Photo Cell included, CA Title 20 Compliant
ODC10-MDW	Line Voltage, Ceiling, M/T Sensor 1000sqft, 120-277V, Extended Range Lens installed, Mid-Range included, Open and Closed Loop Photo Cell included, CA Title 20 Compliant
ODC20-MDW	Line Voltage, Ceiling, M/T Sensor, 2000sqft, 120-277V, Extended Range Lens installed, Mid-Range included, Open and Closed Loop Photo Cell included, CA Title 20 Compliant

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

201 N. Service Rd. Melville, NY 11747-3138 • Tech Line: 1-800-824-3005 • Fax: 1-800-832-9538

#### Leviton Manufacturing Co., Inc. Lighting & Energy Solutions

20497 SW Teton Avenue, Tualatin, OR 97062 • Tele: 1-800-736-6682 • FAX: 503-404-5594 • Tech Line (6:00AM-4:00PM P.S.T. Mon-Fri): 1-800-959-6004

#### Leviton Manufacturing of Canada, Ltd.

165 Hymus Boulevard, Pointe Claire, Quebec H9R 1E9 • Telephone: 1-800-469-7890 • FAX: 1-800-563-1853

#### Leviton S. de R.L. de C.V.

Lago Tana 43, Mexico DF, Mexico CP 11290 • Tel. (+52) 55-5082-1040 • FAX: (+52) 5386-1797 • www.leviton.com.mx

Visit our Website at: [www.leviton.com/les](http://www.leviton.com/les)

© 2013 Leviton Manufacturing Co., Inc. All rights reserved. Subject to change without notice.