

Ultrasonic Ceiling Occupancy Sensor



BASIC OPERATION

The OSCxx-U is a low voltage occupancy sensor that controls indoor lighting. The sensor fills the room with continuous reflective high frequency (ultrasonic) sound waves. Any movement within the sensor's range causes a shift in the original emitted frequency. The sensor's receiver identifies any change in frequency as motion and either turns the lights on or maintains lights on.

APPLICATIONS

- Cafeterias
- Classrooms
- Hallways
- Filing rooms
- Open areas
- Restrooms
- Storage rooms
- Open warehouses
- Workspaces
- Executive offices
- Offices with cubicles

FEATURES

- Self Adjusting: An internal microprocessor automatically analyzes, evaluates and adjusts time delay and U/S settings for maximum energy savings
- Custom off-white color matched for shaded ceilings
- Fast, simple installation: easy ceiling mount, three wire connection (low voltage) and twist-lock sensor attachment for 360° rotation and flexibility
- Maximum reliability, low cost: digital circuitry uses a minimum of components

- Small motion sensitivity: the ultrasonic technology provides excellent small motion sensitivity
- Non-volatile memory: learned and adjusted settings saved in protected memory are not lost during power outages
- Timer Setting Feature: Automatic—30sec - 30min. Test mode—6sec with auto exit programming.
- Walk-through: provides increased energy savings by decreasing the time delay to 2.5min when someone momentarily walks through the monitored space
- Wide coverage: units from 500 to 2000 sq. ft. available
- Ambient light recognition: a light sensor prevents lights from turning on when the room is adequately lit by natural light
- Power base (OPB 15) available for line voltage applications
- Ultrasonic (U/S) components: one or two U/S transducers and one or two narrow bandwidth receivers each 16mm in diameter. Frequency—Crystal controlled to $\pm 0.005\%$.
- Device: rugged, high-impact, injection molded plastic, off-white. Color coded leads 6" (16.24 cm).

HOW THE OSCxx-U AUTOMATICALLY ADAPTS

Condition	Example	Adaptive Reaction
Timer Left In Test Mode - The sensor remains in an 6 sec. test mode.	An installer accidentally leaves the sensor in the 6 sec. timer test mode and the lights may go off or on every 6 sec.	The sensor automatically resets the timer to 10 min after 15 min of test mode.
False-On - The sensor incorrectly turns the lights on.	The sensor detects movement in the corridor or hall way and the room lights turn on.	After an initial movement is sensed, if another movement is not sensed within the timer setting then the delayed off time setting is automatically reduced.
False-Off - The sensor incorrectly turns the lights off.	The sensor does not detect movement because an occupant sits virtually motionless at a desk and the lights turn off.	If motion is sensed within a short period after the lights go off, then the current delayed off-time setting is increased.

OSCxx-UOW

Leviton Manufacturing Co., Inc. Global Headquarters

201 North Service Road, Melville, NY 11747-3138 tech line 800-824-3005 fax 800-832-9538

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PRODUCT DATA

DIP SWITCH SETTINGS			
SWITCH	BANK A	SWITCH FUNCTIONS	SWITCH SETTINGS
A1	N/A	OFF	ON
A2	N/A		
A3	Manual Mode	Auto Adapting Enabled	Auto Adapting Disabled
A4	Walk-Thru Disable	Walk-Thru Enabled	Walk-Thru Disabled
	BANK B		
B1	Override to On	Auto Mode	Lights forced On
B2	Override to Off	Auto Mode	Lights forced Off
B3	Test Mode	OFF'ON'OFF	Enter/Exit Test Mode
B4	LED Disable	LEDs Enabled	LEDs Disabled

*Bold items are factory defaults

SPECIFICATIONS

ELECTRICAL	
Frequency	OSC05-U0W, OSC10-U0W: 40kHz OSC20-U0W: 32kHz
Power Requirements	24 VDC, from OSPxx Power Pack or OPB15 Power Base
Power Consumption	OSC05: 25mA, OSC10: 35mA, OSC20: 30mA
Output	24 VDC active high logic control signal with short circuit protection
CONTROLS	
Ultrasonic Sensitivity	0-100%; green knob (factory setting: 50%)
Light Sensor	20 to 3,000 Lux; factory set at 100% (*grey wire required)
Time Delay	30sec-30min; black knob (factory setting: 10min)
INDICATORS	
Green LED	U/S motion technology
ENVIRONMENTAL	
Operating Temperature Range	32-104°F (0-40°C)
Relative Humidity	0-95% non-condensing, for indoor use only
OTHER	
Mounting Height	8-12 feet
Listings	CUL/US Certified, can be used to comply with ASHRAE 90.1 and 2019 Title 24, Part 6 occupancy sensing requirements
Warranty	Limited Five-Year Warranty

ORDERING INFORMATION

CAT. NO.	DESCRIPTION
OSC05-U0W	Ultrasonic Ceiling Sensor, 500 sq. feet of coverage
OSC10-U0W	Ultrasonic Ceiling Sensor, 1000 sq. feet of coverage
OSC20-U0W	Ultrasonic Ceiling Sensor, 2000 sq feet of coverage

Made in USA with globally sourced components and NAFTA compliant models available.

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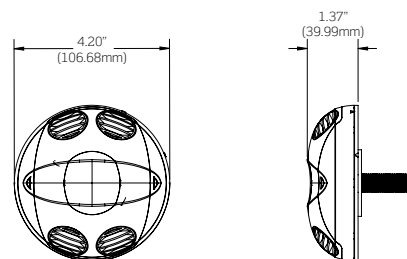
Leviton Manufacturing Co., Inc. Lighting & Controls

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Visit our Website at: www.leviton.com/sensors

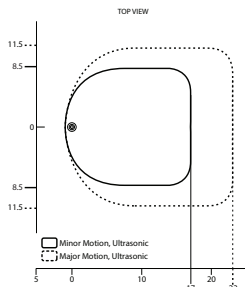
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DIMENSIONS

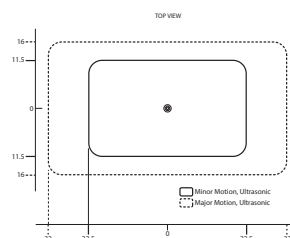


FIELD-OF-VIEW

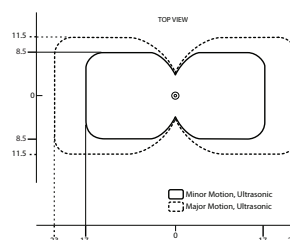
OSC05-U0W



OSC20-U0W



OSC10-U0W



PHYSICAL WIRING

