LEVITON®

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

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 ±.005%.
- Device: Rugged, high-impact, injection molded plastic, off -white. Color coded leads 6" (16.24 cm).
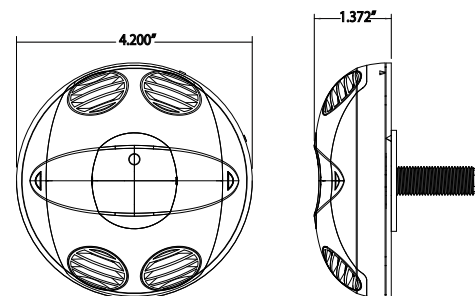
HOW THE OSCxx-U AUTOMATICALLY ADAPTS

Condition	Example	Self-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 mov ement 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 Mfg. Co., Inc. Lighting & Energy Solutions

PRODUCT DATA

DIP SWITCH SETTINGS

SWITCH		SWITCH FUNCTIONS	SWITCH SETTINGS
	BANK A	**OFF**	**ON**
A1	N/A		
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

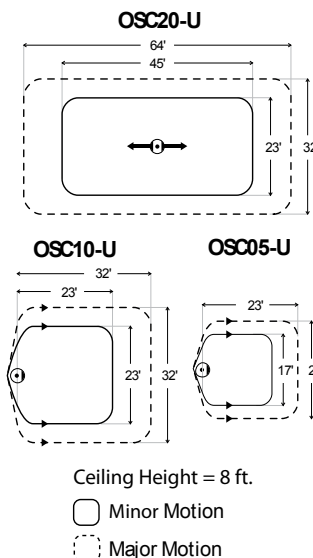| ELECTRICAL	
Power Requirements	24 VDC, from OSPxx Power Pack or OPB15 Power Base
Power Consumption	OSC05: 25mA, OSC10: 35mA, OSC20: 30mA
Output	24 VDC active high logic control signal with short circuit protection

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°F to 104°F (0°C to 40°C)
Relative Humidity	0% to 95% non-condensing, for indoor use only

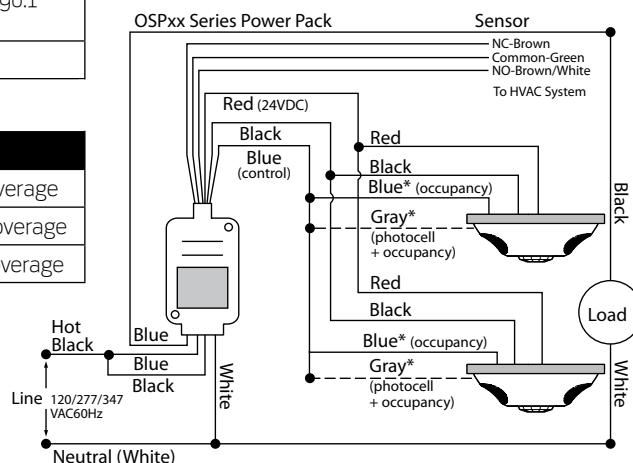| OTHER	
Mouting Height	8-12 feet
Listings	CUL/US Certified, meets ASHRAE Standard 90.1 and CEC Title 24 requirements
Warranty	Limited Five-Year Warranty

ORDERING INFORMATION

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

NAFTA compliant and Made in USA models available

DIMENSIONS

4.200"

1.372"

RANGE

OSC20-U
64'
45'
23'
32'

OSC10-U
32'
23'
23'
32'

OSC05-U
23'
17'
23'

Ceiling Height = 8 ft.

☐ Minor Motion

⬚ Major Motion

PHYSICAL WIRING

OSPxx Series Power Pack — Sensor

NC-Brown
Common-Green
NO-Brown/White
To HVAC System

Red (24VDC)
Black
Blue (control)
Red
Black
Blue* (occupancy)
Gray* (photocell + occupancy)
Red
Black
Blue* (occupancy)
Gray* (photocell + occupancy)

Black

Hot
Black
Blue
Blue
Black
White
Line 120/277/347 VAC60Hz

Load

White

Neutral (White)