

# Ultrasonic Ceiling Occupancy Sensor with Isolated Relay



## BASIC OPERATION

The OSCxx-RUW 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.

Additionally, the sensor is designed with an isolated relay contact; which enables the sensor to interface with other systems (example: BAS, HVAC or any dry-contact capable device or system).

## APPLICATIONS

- Cafeterias
- Restrooms
- Storage rooms
- Workspaces
- Classrooms
- Hallways
- Executive offices
- Offices with cubicles

## FEATURES

- Isolated Relay: Supports HVAC or other Class 2 low voltage signals
- Supports both 24VAC/VDC power supplies
- Wide Coverage: Units from 500 to 2000 sq. ft. available.
- Self Adjusting: An internal microprocessor automatically analyzes, evaluates and adjusts time delay and U/S settings for maximum energy savings

- Custom white color matched for most common day-light harvesting architecture
- Uses OSPxx Series Power Pack: Uses Class 2, 24 volt wiring, three wire connection (low voltage). Multiple sensors can control single or multiple power packs.
- Fast, Simple Installation: Easy ceiling mount, twist-lock sensor attachment for 360° rotation and flexibility.
- Small Motion Sensitivity: The ultrasonic technology provides excellent small motion sensitivity.
- Timer Setting Feature: Automatic - 30sec - 30min. Test mode - 4 sec with auto exit programming
- Non-Volatile Memory: Learned and adjusted settings saved in protected memory are not lost during power outages.
- Walk-Through: Provides increased energy savings by decreasing the time delay to 2.5min when someone momentarily walks through the monitored space.
- 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, white. Color coded leads 7" (17.78 cm).

## HOW THE OSCxx-R AUTOMATICALLY ADAPTS

Condition	Example	Adaptive Reaction
Timer Left In Test Mode - The sensor remains in an 4 sec. test mode.	An installer accidentally leaves the sensor in the 4 sec. timer test mode and the lights may go off or on every 4 sec.	The sensor automatically resets the timer to the preset time delay after 15 minutes of test mode
False-On - The sensor incorrectly turns the lights on.	The sensor detects movement in the corridor or hallway 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-RUW

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

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# PRODUCT DATA

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

\*Bold items are factory defaults

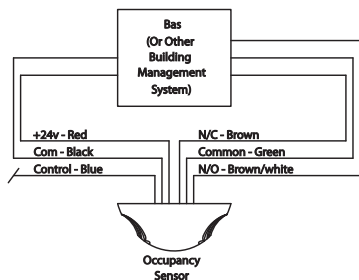
## SPECIFICATIONS

ELECTRICAL	
<b>Power Requirements</b>	15-28 VAC/VDC from OSPxx Power Pack or other Class 2 power supplies
<b>Isolated Relay</b>	1A @ 30VAC/VDC
<b>Power Consumption</b>	DC: OSC05: 25mA, OSC10: 30mA, OSC20: 30mA AC: OSC05: 45mA, OSC10: 50mA, OSC20: 50mA
<b>Output</b>	24 VDC active high logic control signal with short circuit protection
CONTROLS	
<b>Ultrasonic Frequency</b>	OSC05/OSC10: 40kHz OSC20: 32kHz
<b>Ultrasonic Sensitivity</b>	0-100%; green knob (factory setting: 50%)
<b>Time Delay</b>	30sec-30min; black knob (factory setting: 10min)
INDICATORS	
<b>Green LED</b>	U/S motion technology
ENVIRONMENTAL	
<b>Operating Temperature Range</b>	32°F to 104°F (0°C to 40°C)
<b>Relative Humidity</b>	0% to 95% non-condensing, for indoor use only
OTHER	
<b>Mouting Height</b>	8-12 feet
<b>Dimensions</b>	4.2" W x 1.57" D
<b>Listings</b>	CUL/US Certified, meets ASHRAE Standard 90.1 and CEC Title 24 requirements
<b>Warranty</b>	Limited Five-Year Warranty

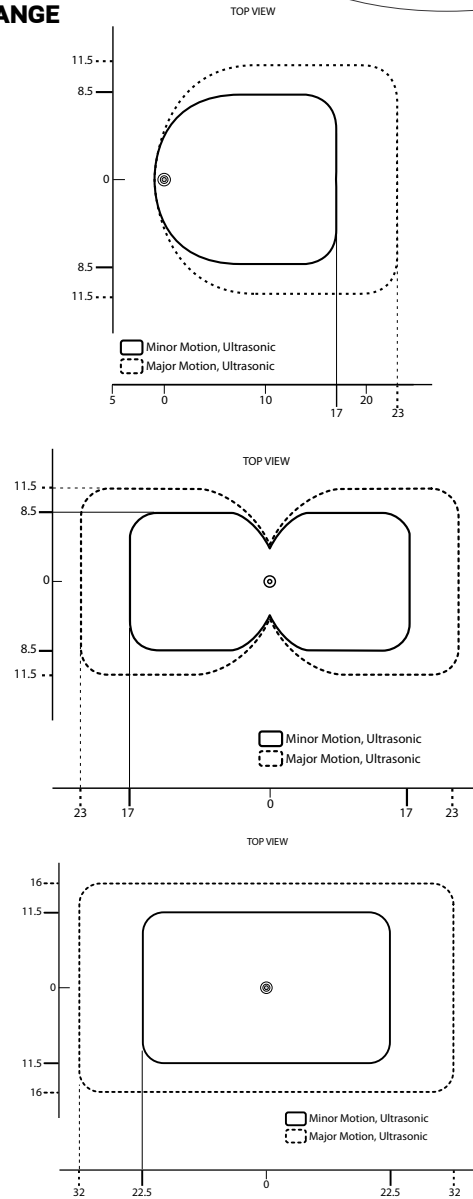
## ORDERING INFORMATION

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

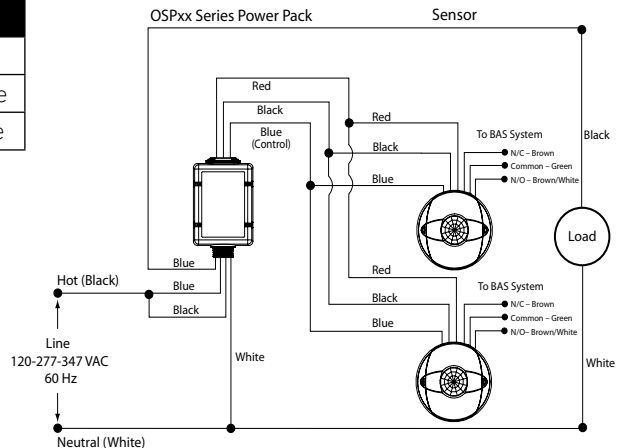
NAFTA compliant and Made in USA models available



## RANGE



## PHYSICAL WIRING



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G-8580/E11-cb