


**SENSORWORX®**

# FIXTURE MOUNT OCCUPANCY SENSOR

LINE VOLTAGE

## OVERVIEW

The **SENSORWORX®** fixture mount occupancy sensor series is an excellent solution for high bay and industrial lighting control. With its universal lens that provides excellent range and density, this sensor removes the need to classify an application as low bay, high bay, or aisleway. Additionally, integrated tabs on its chase nipple reduces installation time and fuss by firmly attaching to a fixture via a standard knockout. **SENSORWORX** products utilize the latest passive infrared technology and digital signal processing techniques to provide unmatched detection performance.

## BASIC OPERATION

Sensors detect movement in the infrared energy that radiates from occupants as they move within the device's field-of-view. Once occupancy is identified, the sensor's internal relay switches power on to the connected lighting. An internal timer is set to keep lights on during brief periods of inactivity, and is reset every time occupancy is signaled. Optional daylight detection is also available that dims or turns off controlled lighting according to the ambient light levels present in the space.

## APPLICATIONS

Line voltage sensors are self-contained units that directly power from and switch 120/277 VAC. In a fixture mount application, they typically control a single fixture.

- Warehouse Storage Area
- Distribution Centers
- Garage
- Manufacturing Areas

## FEATURES

- **Universal Lens Works for High Bay, Low Bay, & AisleWay Applications**
- **Greater Detection Range & Density than Leading Highbay 360° & Aisleway sensors**
- **Digital Passive Infrared (PIR) Detection**
- **Optional Dimming Output Enables Configurable High/Low/Off Operational Modes**
- **Snap-In Chase Nipple Makes Installation Quick**
- **Integrated Bracket Drops Sensor Below Bottom of Fixture**
- **Electronically Timed Switching Designed for LED Fixture Control**
- **Convenient Test Mode and Adjustable Time Delays**
- **Optional Photocell for Daylight Harvesting & Inhibit Applications**

## SPECIFICATIONS

### ELECTRICAL

**OPERATING VOLTAGE**  
MVOLT (120-277 VAC)

**LOAD RATINGS**  
800W @ 120 VAC  
1000W @ 208 VAC (2-Phase)  
1200W @ 277 VAC

**LOAD TYPES**  
Tungsten  
Ballast  
LED

### ENVIRONMENTAL

**OPERATING TEMP**  
32°F to 122°F (0°C to 50°C) - Standard  
-40° F/C (with **-HE** Option)

**RELATIVE HUMIDITY**  
0-95% Non-Condensing,  
Indoor Use Only

### PHYSICAL

**SIZE**  
4.00" Diameter x 3.00" H  
(10.16 x 7.62 cm)

**WEIGHT**  
5.00 oz

**COLOR**  
White

### OTHER

**LISTINGS**  
Meets ASHRAE Standard 90.1  
& CEC Title 24 Requirements



# ORDERING INFO

SAMPLE MODEL # SWX-501

	PRODUCT		DETECTION		COVERAGE		0-10V DIMMING OPTIONS		ENVIRONMENT		ADDITIONAL OPTIONS
SWX	Fixture Mount Sensor	-5	PIR PIR + Photocell	0 1	Highbay / Lowbay / Aisleway	1	None High/Low/Off Operation Daylight Harvesting Night Light Operation	Blank -HL* -D** -NL**	Standard Environment High Humidity Environment	Blank -HE	Individual Pack 50 Pack Blank -J50

\*NOT AVAILABLE WITH PIR + PHOTOCELL VERSION  
\*\*REQUIRES PIR + PHOTOCELL VERSION

## PHOTOCELL & DIMMING OPTIONS

### ON/OFF PHOTOCELL OPERATION

Sensors with an integrated photocell option (e.g. model SWX-511) will turn lights on/off depending on the amount of ambient light detected. This operation makes them ideal for lighting near skylights, windows, or large bay doors.

### DAYLIGHT HARVESTING

Sensors with the daylight harvesting option (e.g. SWX-511-D) are capable of automatically controlling the level of 0-10V dimmable fixtures according to the level of detected ambient daylight. Once fully dim, by default these sensors will then turn lighting completely off if daylight levels are sufficient to maintain the desired overall lighting level. It is also configurable to have lighting stay at the full dim level and never turn off from daylight.

### HIGH/LOW/OFF OPERATION

0-10V dimmable fixtures can be controlled with a high/low/off sequence of operation by adding the High/Low option (HL). With this mode, the sensors will drop the lighting level to a low setting after the occupancy time delay expires. Additional operation (must be enabled) allows the unit after a second time delay to shut the fixture off completely. Alternatively, leaving the sensor's relay disconnected will cause the fixture to stay at the full dim setting (but never turn completely off) for the duration of the unoccupied period.

### NIGHT LIGHT OPERATION

To enhance nighttime safety in facilities equipped with 0-10V dimmable fixtures, a NightLight operational mode (NL option) is available on sensors equipped with a daylight harvesting photocell. In this mode, fixtures will dimmed and then turned completely off during periods with sufficient daylight. However, during periods with insufficient daylight (i.e. at night) lights are held at a dimmed level during unoccupied periods (however not switched off).

## OPERATION SETTING

### OPERATION SETTING (\* = DEFAULT)

- Primary Occupancy Time Delay: Test Mode, 30 sec, 5, 10\*, 15, 20, 30 min
- Secondary (Dim to Off) Time Delay: 0, 30 sec, 2.5\*, 5, 10 min
- Ambient Light Threshold: Auto-Setpoint, 7 Preset Levels, Disabled
- High Trim: 10V\*, 9V, 8V, 7V, 6V, 5V
- Low Trim: 0V, 1V, 2V, 3V\*, 4V, 5V

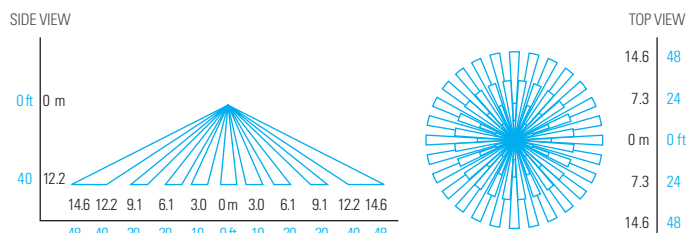
- LED Intensity: Low, High\*
- Operational Mode (Occupancy):
  - SWX-501, SWX-511: On/Off\*
  - SWX-501-HL: High/Low/Off, High/Low\*
  - SWX-511-D: High/Low/Off\*, High/Low
  - SWX-511-NL: High/Low/Off, High/Low\*

## COVERAGE PATTERNS

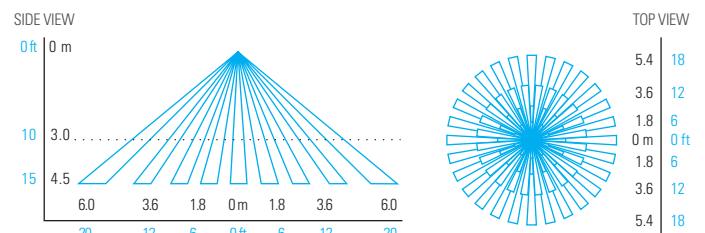
### UNIVERSAL LENS

- Detects walking size motion or larger (e.g., forklifts)
- Single lens provides detection at mounting heights from 8 ft to 40 ft +
- Detection range improves when walking askew to sensor compared to directly at it
- Typical coverage radius ~1.2 x mounting height

### HIGH BAY MOUNTING



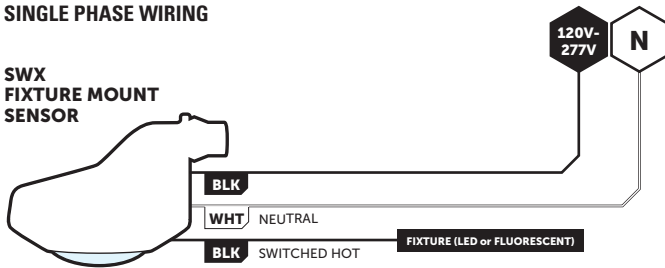
### LOW BAY MOUNTING



# WIRING

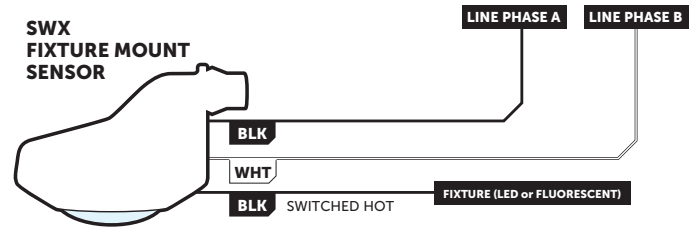
## SINGLE PHASE WIRING

### SWX FIXTURE MOUNT SENSOR



## 2-PHASE WIRING (208 VAC)

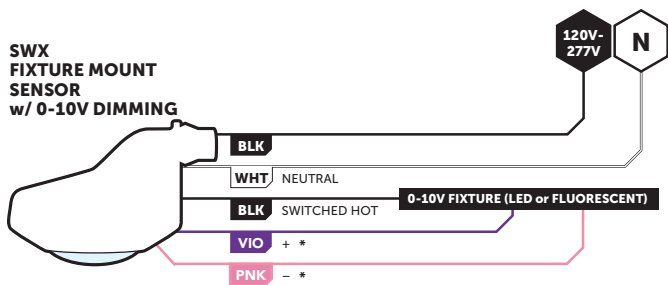
### SWX FIXTURE MOUNT SENSOR



## DIMMING WIRING

- Dimming wires are present on models with -D, -HL or -NL option

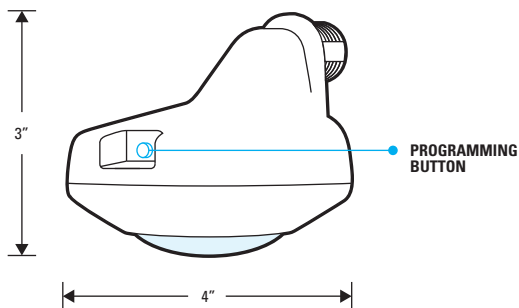
### SWX FIXTURE MOUNT SENSOR w/ 0-10V DIMMING



\* VIO/PNK DIMMING WIRES (0-10V) SHOULD BE TREATED AS CLASS 1

# INSTALLATION

## FRONT



ENCLOSURE INTEGRATES  
~ 3" OF DROP DOWN  
FROM FIXTURE KNOCKOUT

## SIDE

