



### WALL SWITCH DECORATOR SENSOR LINE VOLTAGE • PASSIVE DUAL TECHNOLOGY (PDT)

#### SPECIFICATIONS

##### FEATURES

- Patented Dual Technology with PIR / Microphonics™ Detection
- Self-Contained Relay - No Power Pack Needed
- Interchangeable Hot & Load Wires - Impossible to Wire Backwards
- No Neutral Connection Required
- Small Motion Detection to 20 ft (6.10 m)
- Self-Grounding Mounting Strap
- No Minimum Load
- Push-Button Programmable w/o Removing the Switch Plate
- Adjustable Time Delay
- 3-way & 4-way Switching
- Green LED Indicator

##### PHYSICAL SPECS

- SIZE 4.2"H x 1.8"W x 1.5"D (10.67cm x 4.57cm x 3.81cm)
- WEIGHT 5 oz
- MOUNTING Single Gang Switch Box
- MOUNTING HEIGHT 30-48 in (76.2-121.9 cm)
- COLORS White, Ivory, Gray, Almond, Black

##### ELECTRICAL SPECS

- MAXIMUM LOAD
  - 800 W @ 120 VAC
  - 1200 W @ 277 VAC
  - 1500 W @ 347 VAC
- MINIMUM LOAD None
- MOTOR LOAD 1/4 HP
- FREQUENCY 50/60 Hz (timers are 1.2x for 50 Hz)

##### ENVIRONMENTAL SPECS

- OPERATING TEMP 14° to 160° F (-10° to 71° C)
- STORAGE TEMP -14° to 160° F (-26° to 71° C)
- RELATIVE HUMIDITY 20 to 90% non-condensing

##### OTHER

- UL and CUL Listed
- Title 24 Compliant
- 5 Year Warranty
- Made in the U.S.A.

The WSD PDT Series is a Wall Switch Decorator style Passive Dual Technology (PDT) occupancy sensor. The combination of Passive Infrared and patented Microphonics™ detection allows this sensor to literally see & hear occupants. It is ideal for restrooms with stalls, private offices where occupant turns their back to the sensor, or rooms with obstructions.

##### SENSOR OPERATION & MODES

Passive Dual Technology (PDT) sensors first see motion using Passive Infrared (PIR) and then engage Microphonics™ to hear sounds that indicate continued occupancy. This patented technology uses Automatic Gain Control (AGC) to dynamically self-adapt a sensor to its environment by filtering out constant background noise and detecting only noises typical of human activity. When occupancy is detected, a self-contained relay switches the connected lighting load on. The sensor is line powered and can switch line voltage (see specifications). A timer, factory set at 10 minutes, keeps the lights on during brief periods of inactivity. This timer is push-button programmable from 30 seconds to 20 minutes, and is reset every time occupancy is re-detected. If needed, a 10 second grace period also allows the lights to be voice reactivated after shutting off. This state-of-the-art design requires no field calibration or sensitivity adjustments.

##### ON MODES

- AUTOMATIC ON (default)** - Lights come on when occupancy is detected.
- MANUAL ON** - Requires the occupant manually turn on lights via the push-button.
- REDUCED TURN ON** - Sensor is initially set to only detect large motions, effectively ignoring PIR signals reflected off of surfaces, while still sensing occupants when they enter the room. Once lights are on, the sensor returns to maximum sensitivity.

##### SWITCH MODES

- PREDICTIVE OFF MODE (default)** - This mode allows occupants to turn lights off via the switch without losing the convenience of having the lights automatically turn on when they re-enter the room. Pressing the switch turns the lights off and temporarily disables the occupancy detection in the sensor. After a short exit time delay, the occupancy detection reactivates and monitors for an additional grace period. If no occupancy is detected, the zone will remain in Automatic On operation. If occupancy is detected, the zone will go to a Permanent Off mode, requiring the switch to be pressed again in order to turn the lights on and restore the sensor to Automatic On operation.
- PERMANENT OFF** - Pressing the switch turns the lights and the sensor off. Lights will not come on until switch is pressed again.
- SWITCH DISABLE** - Prevents user from manually turning off the lights via the push-button. Button can still be utilized for programming.

#### OPTIONS

##### VANDAL-RESISTANT LENS (V)

- Ideal for high abuse or public areas, where occupants simply come and go
- Decreases detection range by 50%

##### INHIBIT PHOTOCELL (P)

- Auto set-point calibration
- Photocell prevents lights from turning on if adequate daylight is available, but does not turn lights off

##### 347 VAC (347)

- Allows sensor to be powered from and switch 347 VAC
- Wall Plate Included

##### COLOR

- White, Ivory, Gray, Almond, Black
- Wall Plate Included

##### LOW TEMP/HIGH HUMIDITY (LT)

- Sensor is corrosion resistant
- Operates down to -4° F (-20°C)

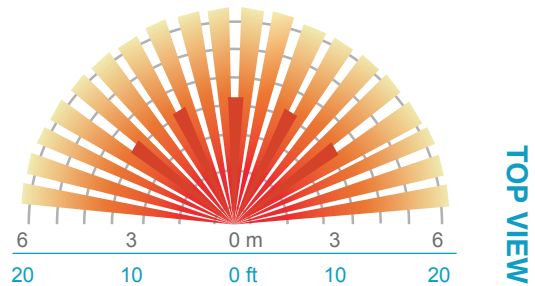
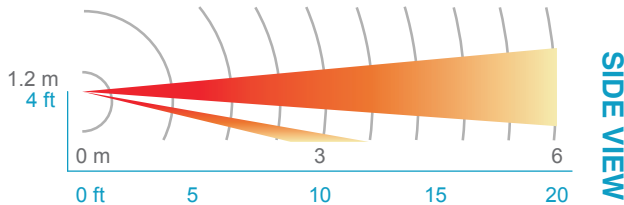
#### ORDERING INFO WSD PDT [LENS] [PHOTOCELL] [VOLTAGE] [COLOR] [TEMP/HUMIDITY]

LENS	PHOTOCELL	VOLTAGE	COLOR	TEMP/HUMIDITY
Blank = None V = Vandal Resistant	Blank = None P = Photocell	Blank = 120/277 VAC 347 = 347 VAC	WH = White IV = Ivory GY = Gray AL = Almond BK = Black	Blank = Standard LT = Low Temp

## COVERAGE PATTERN

### WSD WALL SWITCH DECORATOR LENS W/ MICROPHONICS™

- Small motion (e.g. hand movements) detection up to 20 ft (6.10 m)
- Large motion (e.g. walking) detection up to 50 ft (15.24 m)
- Wall-to-Wall coverage
- Microphonics™ provides overlapping detection of human activity over the complete PIR coverage area
- Advanced filtering is utilized to prevent non-occupant noises from keeping the lights on



## WIRING (DO NOT WIRE HOT)

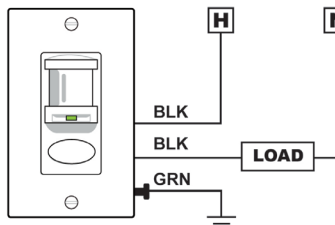
### STANDARD WIRING

- BLACK\* - Line Input
  - BLACK\* - Load Output
  - GREEN SCREW - Ground (required connection)
- \*BLACK wires can be reversed

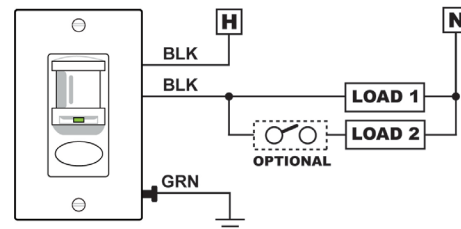
### 347 VAC OPTION (347)

Black wires are replaced w/ Red wires

### STANDARD CONFIGURATION



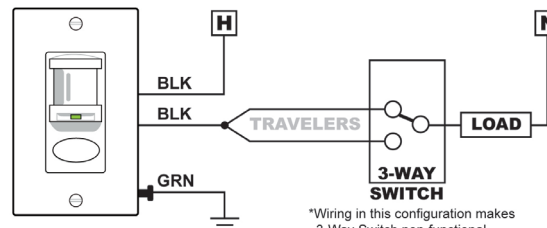
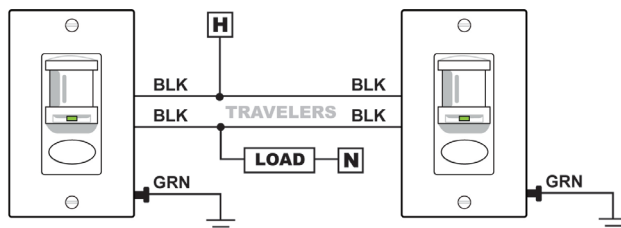
### BI-LEVEL CONFIGURATION



Note: Connection to Ground required for sensor to function

### 3-WAY WIRING CONFIGURATIONS

Travelers are used to wire sensors (or sensor and 3-way switch) in parallel.



\*Wiring in this configuration makes 3-Way Switch non-functional

Note: Connection to Ground required for sensor to function

### WARNING

**Fire Hazard Caution:** Maximum Lamps 1500 Watts, Type 347 VAC.

**Attention:** Risque d'incendie : Pauissance Maxemales Des Lampes 1500 Watts, Type 347 VAC.

**Warning:** The units are intended to be installed by a qualified person with properly rated branch circuit protectors as per applicable local and national regulations (CEC, NEC).



**WARRANTY:** Sensor Switch, Inc. warrants these products to be free of defects in manufacture and workmanship for a period of 60 months. Sensor Switch, Inc., upon prompt notice of such defect, will, at its option, provide a Returned Material Authorization number and repair or replace returned product.

**LIMITATIONS AND EXCLUSIONS:** This Warranty is in full lieu of all other representation and expressed and implied warranties (including the implied warranties of merchantability and fitness for use) and under no circumstances shall Sensor Switch, Inc. be liable for any incidental or consequential property damages or losses.