



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 Required / No Minimum Load
- Small Motion Detection to 20 ft (6.10 m)
- Self-Grounding Mounting Strap
- Compatible w/ Electronic & Magnetic Ballasts, CFLs, & Incandescents
- Push-Button Programmable w/o Removing the Switch Plate
- Adjustable Time Delay
- LampMaximizer® Minimum On Time (disabled by default)
- Non-Volatile Settings Memory
- Green LED Indicator

PHYSICAL SPECS

- SIZE (not including mounting strap)
2.74"H x 1.68"W x 1.63"D
(6.96cm x 4.27cm x 4.14cm)
- WEIGHT 5 oz
- MOUNTING Single Gang Switch Box
- MOUNTING HEIGHT 30-48 in
(76.2-121.9 cm)
- COLORS White, Ivory, Gray, Lt. 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
- SILICONE FREE
- ROHS COMPLIANT

OVERVIEW

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

Sensors with Passive Dual Technology (PDT) first see motion using Passive Infrared (PIR) detection 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, the relay switches the connected load on as dictated by the sensor's operational settings.

An internal timer keeps the lights on during brief periods of inactivity and turns the lights off when it expires. The default time delay is 10 minutes. This timer is programmable from 30 seconds to 20 minutes, and is reset every time occupancy is re-detected. Patented LampMaximizer technology is also present in this sensor, providing an additional minimum on time (disabled by default) to be used if desired. Finally, as an added safety measure, a 10 second grace period allows the lights to be voice reactivated after initially 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
- 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 provided (Ivory & White only)

COLOR

- White, Ivory, Gray, Lt. Almond, Black
- Wall plate provided
- Must be specified when ordered

LOW TEMP/HIGH HUMIDITY (LT)

- Sensor electronics are coated for corrosion resistance
- Operates down to -4° F (-20°C)
- Required for bathroom & cooler/freezer applications



TITLE 24
ASSEMBLED in U.S.A.
5 YEAR WARRANTY

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

LENS
Blank = Standard
V = Vandal Resistant

PHOTOCELL
Blank = None
P = Photocell

VOLTAGE
Blank = 120/277 VAC
347 = 347 VAC

COLOR
WH = White
IV = Ivory
GY = Gray
AL = Lt. Almond
BK = Black

TEMP/HUMIDITY
Blank = Standard
LT = Low Temp

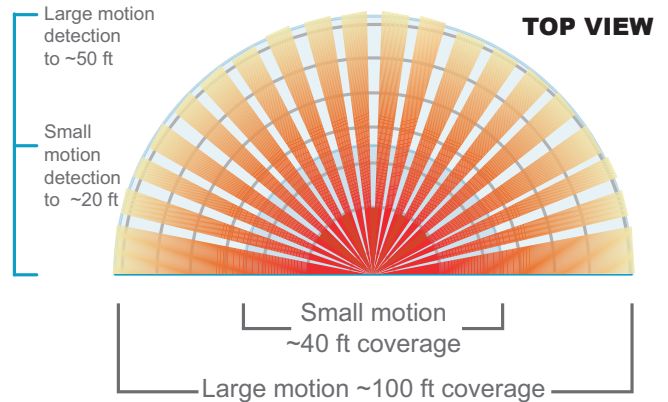
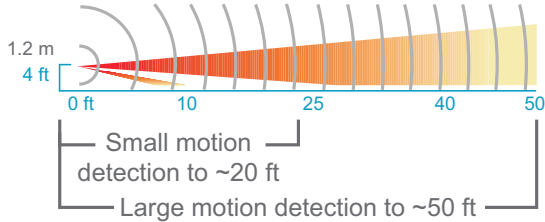
COVERAGE PATTERN

Revised 06.07.12 © 2012 Sensor Switch

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), ~3925 ft²
- 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

SIDE VIEW



WIRING (DO NOT WIRE HOT)

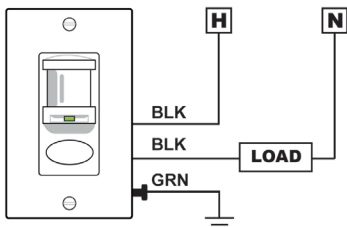
STANDARD WIRING

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

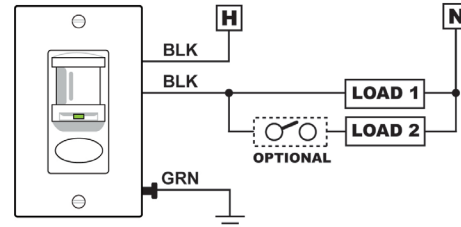
347 VAC OPTION (347)

Black wires are replaced w/ Red wires

STANDARD CONFIGURATION



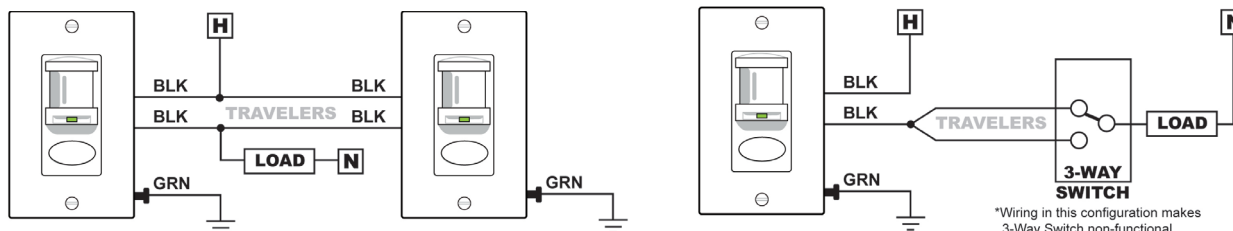
BI-LEVEL CONFIGURATION



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.



Note: Connection to Ground required for sensor to function

PROGRAMMING

Refer to included instruction card IC2.002 for default settings and directions on programming the sensor via the push-button.

WARNING Fire Hazard Caution: Maximum Lamps 1500 Watts, Type 347 VAC.
Attention: Risque d'incendie : Puissance Maximales 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.

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