

TYPICAL APPLICATIONS

- Private Offices where occupant turns back to sensor
- Restroom with Stalls
- Storage rooms with shelving

FEATURES

- Patented Dual Technology with PIR/Microphonics™ Detection
- Small Motion Detection to 20 Feet
- Time Delay: 30 sec. to 20 minutes, selectable in 2.5 min. increments
- Green LED Activity Indicator
- Push-Button Programmable

AVAILABLE OPTIONS

- Vandal-Resistant Lens (-V)
- Isolated Low Voltage Relay (-R)
- Low Temp/Hi Humidity (-LT)

SPECIFICATIONS

- Size: 4.2" H x 1.8" W x 1.5" D (10.67cm x 4.57cm x 3.81cm)
- Sensor Weight: 5 Ounces
- Colors: Ivory, White, Gray, Almond
- Mounting Height: 30 to 48 inches
- Relative Humidity: 20 to 90% non-condensing
- Operating Temp: 14° to 85° F (-10° to 29° C)
- Storage Temp: -14° to 160° F (-26° to 71° C)
- Operating Voltage: 12-24 VAC/VDC
- UL and CUL Listed
- 5 Year Warranty
- Made in U.S.A.

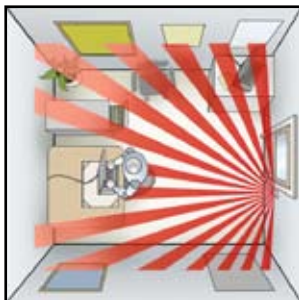
LOW TEMP/HI HUMIDITY(-LT)

- Conformally coated Circuit Board is corrosion resistant from moisture
- Operates down to -4° F (-20° C)

WSD-PDT-LV Series Programmable Edition!



Dual Technology in a low voltage Wall Switch Sensor! The *WSD-PDT-LV Series* is by far the most powerful Decorator occupancy sensor ever invented. This sensor combines Passive Infrared (PIR) detection with patented Microphonics™; enabling it to literally "See & Hear" occupants in areas with or without obstructions. A user programmable time delay ensures that once the room is vacated the sensor will time out and turn off the lights. *WSD-PDT-LV* sensors also have additional On Modes and Switch Modes that are all fully programmable using the front push-button. Additionally, the *WSD-PDT-LV* offers a Vandal Resistant version for high abuse or public areas.



Small Office

- Sensors maintain effectiveness in obstructed locations
- Detects keyboard, phone, paper shuffling



Bathrooms

- Senses partitioned spaces
- Voice sound re-activation prevents lights out condition

SENSOR OPERATIONS

Sensors with Passive Dual Technology (PDT) 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 DC output goes high and can drive up to 200 mA of connected load. The sensor is powered with 12-24 VAC/VDC and typically operates with a PP-20 or MP-20 Power Pack; enabling complete 20 Amp circuits to be controlled. An internal timer, factory set at 10 minutes, keeps the lights "On" during brief periods of no activity. This timer is selectable at 2.5 minute increments 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.

LOW VOLTAGE RELAY OPTION (WSD-PDT-LV-R)

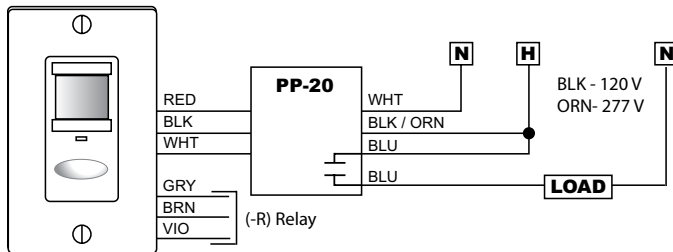
To enable a sensor to interface with a building management system, the -R option provides dry contact closure via a SPDT, 1 Amp, 40 Volt relay. The relay is energized while the sensor registers "Unoccupied". The relay is then de-energized when the sensor registers "Occupied".

MODEL NUMBERING SYSTEM: WSD-PDT-LV-[LENS]-[LV RELAY]-[COLOR*]-[TEMP/HUMIDITY]

SERIES #	LENS	LOW VOLTAGE RELAY	COLOR	TEMP/HUMIDITY
WSD-PDT-LV	Blank = Standard -V = Vandal Resistant	Blank = No Relay -R = w/ SPDT Relay, 1 Amp	-I = Ivory -W = White -G = Gray -A = Almond	Blank = 14° to 85° F -LT = -4° to 85° F

WIRING INSTRUCTIONS

Wire lead connections are Class II, 18 to 22 AWG.



STANDARD WSD-PDT-LV

RED – 12 to 24 VAC/VDC

BLACK – Common

WHITE – Output (High DC for Occupancy)

LOW VOLTAGE RELAY OPTION WIRING

GRAY / BROWN – Connected during Occupied state

VIOLET / BROWN – Connected during Unoccupied state

Note: Relay is energized during Unoccupied state and must have power at all times to function.

OPERATIONAL MODES

On Modes (*Default)

Automatic On* - The sensor automatically turns the lights on when the sensor detects occupancy.

Manual On (Semi-Automatic) - The occupant must push the sensor's button to turn the lights on.

Reduced Turn-On - The sensor is set to initially only detect large motions, effectively ignoring any reflected PIR signals while still sensing occupants when they enter the room. Once on, the sensor returns to maximum sensitivity.

Switch Modes (*Default)

Predictive Off * - Pressing the switch overrides the lights off and temporarily disables the occupancy detection. After an exit time delay of 10 seconds, the PIR detection reactivates and monitors for an additional 5 seconds. If no occupancy is detected during this 5 second period, the sensor will revert to Automatic On operation. If occupancy is detected, the sensor will remain in Permanent Off mode requiring the switch to be pressed again in order to restore the sensor to Automatic On.

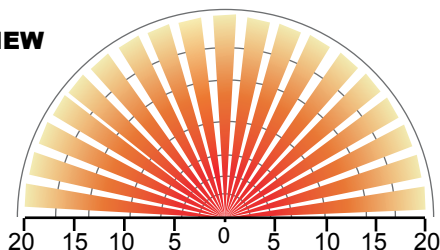
Permanent Off - Pressing the push-button switch will turn the lights off. The lights will remain off regardless of occupancy until the switch is pressed again, restoring the sensor to Automatic On Mode.

Switch Disable - Prevents user from manually turning off the lights via the push-button.

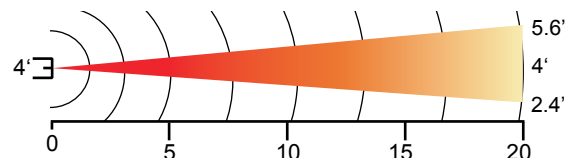
AREA OF COVERAGE:

The PIR collector beams view out horizontally in a wall-to-wall pattern. The beams will see out to 50 feet, however, their effectiveness with *Standard* Lens is 20 feet for small hand or body motions and 10 feet for the *Vandal Resistant* lens. The Microphonics™ will detect normal human activity up to 20 feet, but will detect greater distances in spaces with hard floors or very quiet rooms with little or no background noise.

TOP VIEW



SIDE VIEW



STANDARD vs. VANDAL RESISTANT LENS

The Standard lens should be used in typical offices or rooms where occupants work for extended periods of time. The Vandal Resistant lens should be used in high abuse or public areas, where occupants simply come and go and make larger types of motions. Copy rooms, small public restrooms, storage or janitor's closets are ideal applications. A sensor with a Vandal Resistant lens will have its PIR detection range reduced by 50%, however the Microphonics™ range is not affected.

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

sensorswitch

SENSOR SWITCH, INC.

900 Northrop Rd., Wallingford, CT 06492
(203) 265-2842 info@sensorswitch.com
www.sensorswitch.com

revised 10/12/2006
copyright Sensor Switch, Inc. 2006