

TECHNICAL DATA

TYPICAL APPLICATIONS

- Private Offices
- Conference Rooms
- Individual Bathrooms (no stalls)
- Interface w/G.E. RR-7 Relay

SENSOR HIGHLIGHTS

- Dual Tech Wall Switch
- Patented PIR/Microphonics™
- Optional Vandal-Resistant Lens
- Optional No-Switch Lens

FEATURES

- Time Delay: 30 sec. to 20 minutes
- Green LED Indicator

SPECIFICATIONS

- Size: (WSD) 4.2" x 1.8" x 1.4"
- Size: (LWS) 4.95" x 3.1" x 1.7"
- Sensor Weight: 5 Ounces
- Sensor Color (WSD): Ivory, White, Gray, and Almond
- Sensor Color (LWS): Ivory or White
- Mounting Height: 3 to 4 Feet
- Relative Humidity: 20 to 90% non-condensing
- Operating Temp: 14° to 85° F
- Storage Temp: -14° to 160° F
- Operating Voltage: 24 VAC (half wave rectified)
- Max. Pulsing Current: 4 Amps
- UL and CUL Listed
- 5 Year Warranty
- Made in U.S.A.

LOW TEMP/HI HUMIDITY(-LT)

- Conformally Coated PCB
- Operates down to -4° F
- Corrosion resistant from moisture

WSD-PDT-RR7 SERIES LWS-PDT-RR7 SERIES

Wall Switch Sensors designed to directly control the G.E. RR-7 Relay. The patented power supply allows a 3-wire connection to the system replacing the local momentary override switch, without having to run a 4th wire back to the Class II transformer which is typically located in a centralized panel and not easily accessible. The *WSD-PDT-RR7* Decorator recesses into the switch box. The *LWS-PDT-RR7* surface mounts. Either sensor is ideal for restrooms with stalls, private offices where maximum sensitivity is desired, or storage rooms with shelving that creates obstructions. These sensors combine PIR (Passive Infrared) with Microphonics™ technology to literally "See & Hear" the occupant. The PIR must first detect, initiating the lights to an "On" condition. The Microphonics™ then engages detecting the occupant "noise". Automatic Gain Control (AGC) allows the sensor to self adapt ignoring constant background noise, and detect only noise changes typical of human activity. An internal timer, typically set at 10 minutes, keeps the lights "On" during periods of no activity. Once the lights turn "Off", a 10 second grace period allows for the occupant to voice re-active the lights back "On" if needed. The *WSD-PDT-RR7* offers Vandal Resistant versions, and No Switch options. For colder environments or areas with high humidity, use the "-LT" option.

HOW THE G.E. RR-7 RELAY SYSTEM WORKS

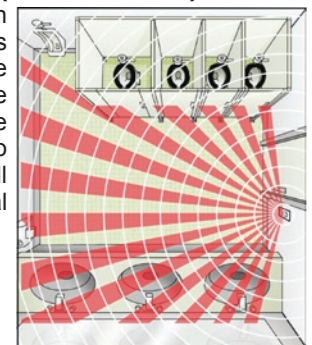
A Class II 24 VAC transformer provides the systems power. One leg of the secondary wires to the anode of a "Diode", the cathode of the diode wires to the center tap (Blue wire) of the RR-7 relay. Note: This Diode must be wired this way for the sensor to function properly (see wiring diagram). The other leg of the transformer wires to the center tap of a SPDT "Momentary Switch". The "up" terminal on the switch is wired to the "Pulse On" (Red wire), and the "down" terminal is wired to the "Pulse Off" (Black wire) of the RR-7 Relay. The *WSD-PDT-RR7* or *LWS-PDT-RR7* replaces this momentary switch.

SENSOR INTERFACE AND OPERATION

The sensor draws its power through the relay coil, however in such a small amount that it does not affect the relay's operation. Upon occupancy, the sensor pulses the "On" wire through an SCR, and turns the lights "On". Once the time delay expires on the sensor, it pulses the "Off" wire. The override switch on the sensor can be set for "Auto" or "Off". Once in the "Off" setting, the switch must be reset back to "Auto" for the system to function.

STANDARD VS. VANDAL RESISTANT LENS (WSD-PDT-RR7)

The Standard lens provides maximum PIR detection sensing small movements up to 20 feet. This 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. The PIR detection is reduced by 50%.



PART NUMBERING SYSTEM: WSD or LWS-RR7-[LENS/SWITCH]-[COLOR*]-[TEMP/HUMIDITY]

MODEL	DESCRIPTION	LENS/SWITCH	COLOR	LO TEMP/HI HUMIDITY
WSD	Recessed Decorator	Blank = Standard Lens w/ Switch	-I = Ivory	Blank = 14° to 85° F
		-VS = Vandal Resistant w/ Switch	-W = White	-LT = -40° to 85° F
		-VN = Vandal Resistant w/o Switch	-G = Gray	
		-SN = Standard Lens w/o Switch	-A = Almond	
LWS	Surface Mount	Blank = Standard Lens w/ Switch	-I = Ivory	Blank = 14° to 85° F
			-W = White	-LT = -40° to 85° F

*Must specify color

INPUT/OUTPUT

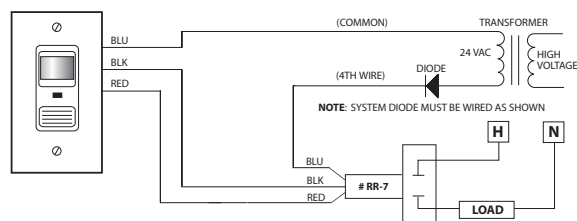
Wire lead connections are Class II, 18 to 22 AWG. Each unit has three leads as follows:

BLUE – Common (non Diode leg of xfmr)

RED – Pulse On (two for -2P units)

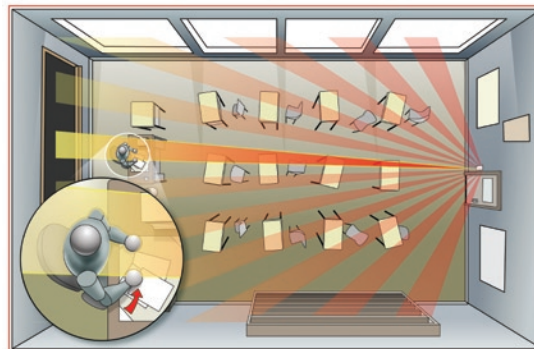
BLACK – Pulse Off (two for -2P units)

Note: Only ONE Sensor is used per system. If multiple sensors are required, refer to Ceiling or Wide View Sensor Technical Data



SWITCH OR NO SWITCH OPTION (WSD-PDT-RR7)

The WSD-PDT-RR7 sensors offer a manual Auto/Off slide switch for turning "Off" the lights while the room is occupied. In applications such as public areas where overriding the sensor "Off" will cause a nuisance, the 'No Switch' option is preferred.

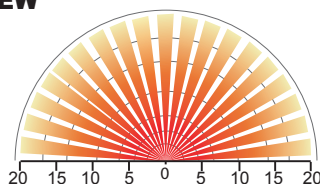


FIELD OF VIEW

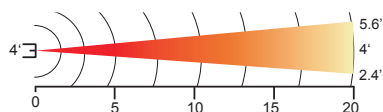
These sensors provide wall-to-wall coverage, viewing out at one horizontal level in the space. The collector beams will see out to 50 feet, however, their effectiveness in the WSD-RR7 product is 20 feet for small hand or body motions, and 10 feet for the Vandal Resistant products. The LWS-RR7 product is designed for up to 40 feet for small hand or body motions. The Microphonics overlaps the PIR detection pattern providing additional coverage, specifically in rooms with obstructions.

WSD Decorator Half-Inch Focal Length Lens

TOP VIEW

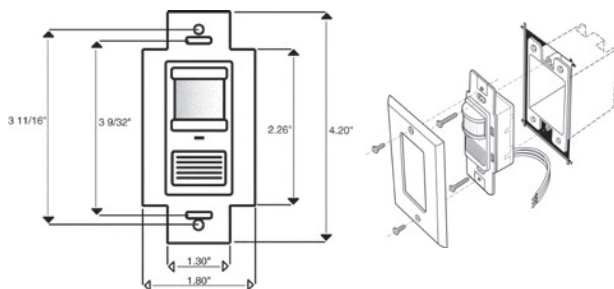


SIDE VIEW



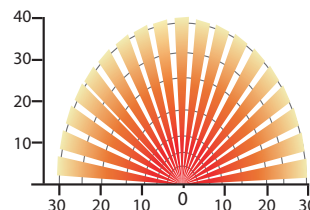
CRITICAL DIMENSIONS (WSD ONLY)

The Decorator Wall Switch Sensor was designed to fit in a standard single gang switch box and be covered with a standard GFI wall plate. The front of the product protrudes 0.37 inches where the optical lens is, and it recesses into the wall less than one inch.

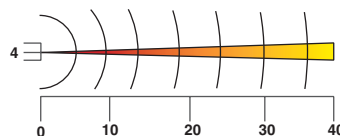


LWS Surface Mt. One-Inch Focal Length Lens

TOP VIEW



SIDE VIEW



LWS ACCESSORY WALL PLATES

Note: -I is for Ivory, and -W is for White.



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.

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