sensorswitch

WIDE VIEW SENSOR - CORNER MOUNT
LOW VOLTAGE, PIR/MICROPHONICS™(PDT)

TYPICAL APPLICATIONS

- Classrooms
- Large Conference Rooms
- Large Storage Rooms
- Hallways

FEATURES

- Patented Dual Technology with PIR/Microphonics™ Detection
- Communicates with Other Sensors
- 120º by 40ft. Coverage for Small Motion
- Time Delay: 30 sec. to 20 minutes
- Push-Button Programmable, w/o removing cover
- Green LED Activity Indicator
- 100 Hr. Lamp Burn-in Timer Mode

AVAILABLE OPTIONS

- Isolated Low Voltage Relay (-R)
- On/Off Photocell (-P)
- Low Temp/Hi Humidity (-LT)

SPECIFICATIONS

- Size: Rectangular, 3.0" x 3.6" x 1.75" (7.62 cm x.9.14 cm x 4.45 cm)
- Sensor Weight: 6 Ounces
- Sensor Color: White
- Mounting: 8 to 10 Feet in Corner or Ceiling using bracket (WV-BR)
- Relative Humidity: 20 to 90% non-condensing
- Operating Temp: 14º to 160º F (-10° to 71° C)
- Storage Temp: -14º to 160º F (-26° to 71° C)
- Operating Voltage: 12-24 VAC/VDC
- UL, CUL, and Title 24 Compliant
- 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 -4º F(-20º C)

WV-PDT SERIES
& WV-BR (Bracket)
w/ Enhanced Photocell Option!

Classrooms are the ideal application for the *WV-PDT* Dual Technology Wide View Sensor. Installed in the corner of the room along the entrance wall, this inconspicuous sensor provides line of sight PIR detection of small movements up to 40 feet away, and combines overlapping Microphonic™ detection around obstructions. Many classrooms are filled with shelving, projects, or lab benches. Total coverage of the room is always maintained no matter how cluttered the space becomes! The *WV-PDT* is also used in corridors due to its ability to view up to 70 feet for walking motions, or large open storage areas where obstructions may block the PIR's ability to view. For large lecture halls, multiple *WV-PDTs* may be wired together, or along with any other low voltage sensors.

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 to 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. Once the lights turn "Off", a 10 second grace period allows for the occupant to voice re-activate the lights back "On" if needed. This timer is selectable at 2.5 minute increments from 30 seconds to 20 minutes, and is reset every time occupancy is re-detected.

DAYLIGHTING CONTROL OPTION (WV-PDT-P)

For spaces with abundant natural light from windows or skylights, this series offers an On/Off Photocell (-P) option. The -P option is ideal for public areas like vestibules, corridors, and restrooms; or spaces like classrooms and private offices. As the daylight levels change in the room, the -P option insures that an adequate light level is maintained according to a programmable set-point value. The -P option provides two modes of operation; one simply inhibits the lights from turning on, while the other has full On/Off control of the lights. For more detailed information on these daylighting control features, see the CM-PC Technical Data Sheet.

INTERNAL LOW VOLTAGE RELAY OPTION (WV-PDT-R)

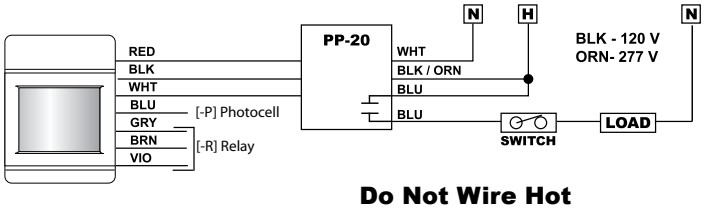
To enable a sensor to interface with a building management system, the -R option provides dry contact closure via a SPDT, 1 Amp, 40 Volt relay. The relay coil is energized and changes state when ALL connected sensors register "Unoccupied". When using multiple sensors, only one sensor per zone needs to have a relay.
Note: Sensor must have power at all times for the relay to function.

CATALOG INFORMATION

MODEL #	DESCRIPTION	TEMPERATURE	OP. VOLTAGE	CURRENT
WV-PDT	Passive Dual Technology Wide View	14° to 160° F	12 to 24 VAC/VDC	3 mA
Add suffix				
-R	SPDT Relay, 1 Amp		12 to 24 VAC/VDC	13 mA
-P	On/Off Photocell		12 to 24 VAC/VDC	3 mA
-RP	Relay & On/Off Photocell		12 to 24 VAC/VDC	13 mA
-LT	Low Temp/High Humidity	-4° to 160° F		
Accessory				
WV-BR	Ceiling Mount Bracket			

WIRING INSTRUCTIONS

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

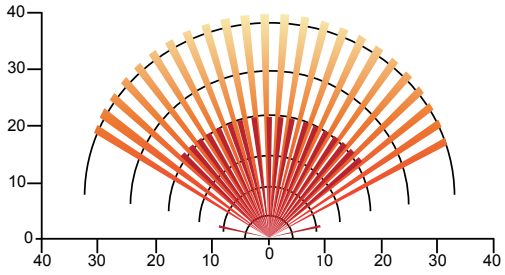


Do Not Wire Hot

INSTALLATION CONSIDERATION

The *WV-PDT's* rear enclosure is beveled so as to be corner mounted at 8 to 10 feet (see tilt settings). Ideally, the sensor should mount, as shown below, in the corner above the entrance door or in the corner along the same wall as the entrance. If the room is large and multiple sensors are needed, mount the second sensor in the opposite corner, however tilt sensor forward to ensure that the PIR collector beams are not viewing out the door. For mounting heights above 10 feet, use the *WV-BR* and mount sensor to angled side to provide an initial 30º lookdown. The PDT line of sensors, unlike any other occupancy sensor, self adjusts to its environment. The Automatic Gain Control (AGC) feature allows the sensor to tune out constant background noise. However, changing noise signals like talking, shuffling of papers, and general human activities are readily detected. Avoid locating the sensor near Wall Clocks that make "Clicking Noises" every minute.

TOP VIEW



STANDARD WV-PDT

RED - 12 to 24 VAC/VDC
BLACK - Common
WHITE - Output (HI DC for Occupancy)

PHOTOCELL OPTION (-P)

BLUE - Photocell output (High: Occupied & Low Light)

Note: Use Blue wire from sensor in place of White wire. For multi-level control, use 2 Power Packs and connect White to primary load and Blue to daylight load.

RELAY OPTION (-R)

GRAY / BROWN - Connected during Occupied state
VIOLET / BROWN - Connected during Unoccupied state

Note: Relay is energized during Unoccupied state

CEILING MOUNT BRACKET (WV-BR)

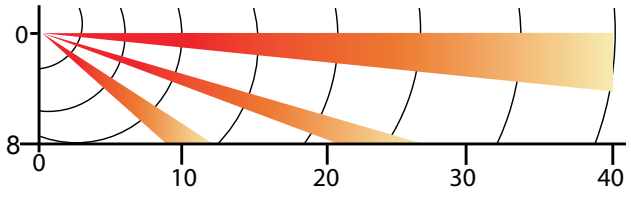
The *WV-BR* Ceiling Mount Bracket allows the *WV-PDT* to be mounted from the ceiling in rooms where mounting to the wall is not possible.

WV-BR

TILT ADJUSTMENT

Mt. Ht.	Position
7' - 8'	Vertical
8' - 9'	Center
9' - 10'	Forward
Above 10'	Use WV-BR

SIDE VIEW



sensorswitch

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

revised 06/21/2006