



### WIDE VIEW SENSOR CORNER MOUNT • LOW VOLTAGE • DUAL TECHNOLOGY (PDT)

#### SPECIFICATIONS

##### FEATURES

- PIR Occupancy Detection
- 120° by 40 ft (12.19 m) Coverage for Small Motion
- Adjustable Time Delay
- 100 Hr. Lamp Burn-In Timer Mode
- Green LED Indicator

##### PHYSICAL SPECS

- SIZE 3.0" H x 3.6" W x 1.75" D  
(7.62 cm x 9.14 cm x 4.45 cm)
- WEIGHT 5 oz
- MOUNTING Directly to corner or to ceiling using **WV BR** bracket
- COLOR White

##### ELECTRICAL SPECS

- OPERATING VOLTAGE 12-24 VAC/VDC
- CURRENT DRAW Standard, 4 mA  
w/ **R** option, 16 mA
- RECOMMENDED POWER PACK PP20

##### 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.

Classrooms are the ideal application for the **WV PDT 16** 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 ft (12.19 m) away, and combines overlapping Microphonics™ for 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 16** is also used in corridors due to its ability to view up to 70 ft (21.34 m) for walking motions, or large open storage areas where obstructions may block the PIR's ability to view. For large lecture halls, multiple **WV PDT 16s** may be wired together, or along with any other low voltage sensors.

##### SENSOR OPERATION

The sensor has Passive Dual Technology (PDT), which first sees motion using Passive Infrared (PIR), and then engages Microphonics™ to hear sounds that indicate continued occupancy. This patented technology uses Automatic Gain Control (AGC) to dynamically self-adapt the 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 **PP20** or **MP20** 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 inactivity. This timer is push-button programmable from 30 seconds to 20 minutes, and is reset every time occupancy is re-detected. This state-of-the-art sensor requires no field calibration or adjustment.

#### OPTIONS

##### LOW VOLTAGE RELAY ( R )

- Enables sensors to interface with other systems (e.g., BMS, lighting panels)
- Provides dry contact closure via a SPDT, 1 Amp, 40 Volt relay
- Only one relay needed per zone
- Changes state when all connected sensors register unoccupied
- Relay requires sensor power to function

##### PHOTOCELL ( P )

- Auto set-point calibration
- Two selectable modes of operation
- On/Off mode: Photocell has full control during periods of occupancy
- Inhibit mode: Photocell can prevent lights from turning on if adequate daylight is available, but cannot turn lights off

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

- Sensor is corrosion resistant to moisture
- Operates down to -4° F/ 20° C

#### ORDERING INFO WV PDT 16 [RELAY] [PHOTOCELL] [TEMP/HUMIDITY]

##### RELAY

- Blank = None
- R = Low Voltage Relay

##### PHOTOCELL

- Blank = None
- P = Photocell

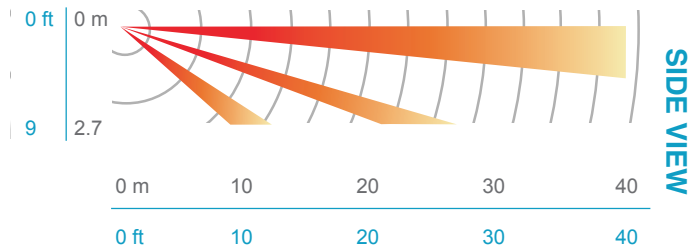
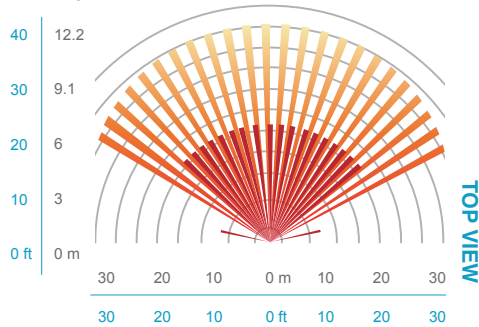
##### TEMP/HUMIDITY

- Blank = Standard
- LT = Low Temp

## COVERAGE PATTERN

### 16 WIDE VIEW LENS WITH MICROPHONICS™

- Small motion (e.g. **hand movements**) detection up to 40 ft (12.19 m).
- Large motion (e.g. **walking**) detection up to 70 ft (21.34 m).
- Designed for 8 to 10 ft (2.44 to 3.05 m) high mounting in room corner.
- Microphonics™ provides overlapping detection of human activity over the complete PIR coverage area. Advanced filtering is also utilized to prevent non-occupant noises from keeping the lights on.



## WIRING (DO NOT WIRE HOT)

### STANDARD WIRING

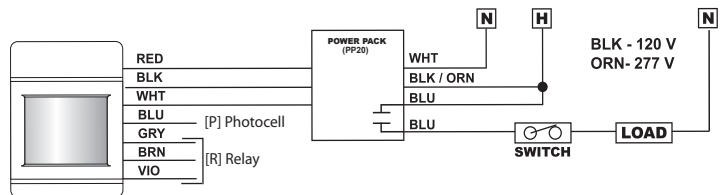
- RED** - Power Input (12-24 VAC/VDC)
- BLACK** - Common
- WHITE** - Output (high VDC for occupancy)

### RELAY OPTION (R)

- GRAY/BROWN - Connected during occupied state
  - VIOLET/BROWN - Connected during unoccupied state
- Note: Relay is energized during unoccupied state.

### PHOTOCELL OPTION (P)

- BLUE** - Use in place of White output wire. Photocell output is high VDC with occupancy & low light.
- For multi-level control, use two power packs and connect White to primary load and Blue to daylight load.



## INSTALLATION

- Sensor has rear enclosure, which is beveled so as to be corner mounted at 8-10 ft (2.44-3.05 m); see tilt settings below.
- Mount in corner above entrance door or in a corner along the same wall as the entrance.
- For mounting heights above 10 ft (3.05 m), use the **WV BR** and mount sensor to angled side to provide an initial 30° look down.

### TILT ADJUSTMENT Mounting Height Position

7' - 8'	Vertical
8' - 9'	Center
9' - 10'	Forward
Above 10'	Use <b>WV BR</b>



### CEILING MOUNT BRACKET (WV BR)

The **WV BR** Ceiling Mount Bracket allows the **WV PDT 16** to be mounted in the corner of the area from the ceiling for conditions where mounting to the wall is not possible.



### PROGRAMMING

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

**sensorswitch**

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**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.

**T069-004P**