



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

#### SPECIFICATIONS

##### FEATURES

- 100% Digital PIR Detection, Excellent RF Immunity
- 120° by 40 ft (12.19 m) Coverage for Small Motion
- Patented Dual Technology with PIR / Microphonics Detection
- Push-Button Programmable Adjustable Time Delays
- Convenient Test Mode
- No Field Calibration or Sensitivity Adjustments Required
- 100 hr Lamp Burn-in Timer
- Green LED Indicator

##### LAMPMAXIMIZER® TECHNOLOGY

- Protects Lamp Life while Maximizing Energy Savings
- Minimum On Timer (15 min default)
- Occ. Time Delay (10 min default)
- LampMaximizer+ Mode - Optimizes Lamp Life & Energy Savings (disabled by default)
- Switch Counter (in 1000's)
- Total Lamp On Time (in hrs)

##### 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
- SILICONE FREE
- ROHS COMPLIANT

##### OVERVIEW

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

Sensors with Passive Dual Technology (PDT) first see motion using 100% digital 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 registering 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. If needed, a 10 second grace period also allows the lights to be voice reactivated after shutting off. 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.

##### LAMPMAXIMIZER®

This sensor also contains patented LampMaximizer technology that allows users to aggressively target energy savings while still protecting lamp life. A minimum on timer, factory set at 15 minutes, helps preserve lamp life by eliminating all lamp cycles shorter than lamp manufacturer's recommendations. A standard occupancy time delay is also present that ensures lights turn off (assuming minimum on timer has elapsed) if no occupancy is detected. This timer is factory set at 10 minutes to promote energy savings, but is adjustable between 30 seconds and 20 minutes. These adjustments can be done manually, through the units push-button, or automatically every two weeks through an advanced mode, called LampMaximizer+, that determines the optimum time delay in order to maximize both lamp life and energy savings. Additionally, this sensor maintains statistics on total lamp on time and number of cycles.

#### 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)

##### BRACKET KIT (KIT)

- WV BR ceiling mount bracket included



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

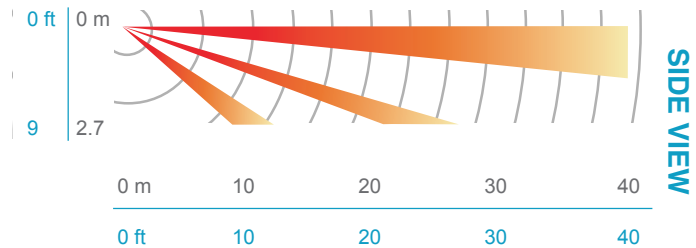
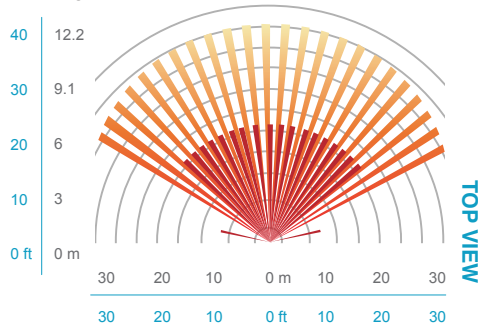
#### ORDERING INFO WV PDT 16 [RELAY] [PHOTOCELL] [TEMP/HUMIDITY] [BRACKET KIT]

RELAY	PHOTOCELL	TEMP/HUMIDITY	BRACKET KIT
Blank = None R = Low Voltage Relay	Blank = None P = Photocell	Blank = Standard LT = Low Temp	Blank = Sensor only KIT = Sensor & WV BR Bracket

## COVERAGE PATTERN

### 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

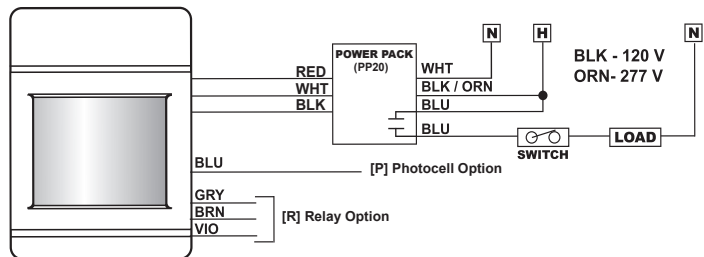
- RED** - Power Input (12-24 VAC/VDC)
- BLACK** - Common
- WHITE** - Occupancy State (high VDC for occupied)

### PHOTOCELL/DIMMING OPTIONS (P)

**BLUE** - Direct output to power pack for providing photocell control. Output is high VDC with occupancy & low light. For multi-level control, use two power packs and connect White wire 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



## 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.

SIZE 4.7" Dia (11.94 cm)  
3.3" Deep (8.38 cm)

#### MOUNTING

- Ceiling Tile Surface
- 3.5" Octagon Box
- Single Gang Handy Box

COLOR White



### PROGRAMMING

Refer to instruction card IC7.002 for default settings and directions on programming the sensor via the push-button.



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**WARRANTY:** Sensor Switch warrants these products to be free of defects in manufacture and workmanship for a period of 60 months. Sensor Switch, 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 be liable for any incidental or consequential property damages or losses.

**TS-WV-002A**