### **OVERVIEW**

The WSD PDT 2P FAN is a Wall Switch Decorator style Passive Dual Technology (PDT) occupancy sensor that controls a lighting load and an exhaust fan. While similar in functionality to standard dual relay sensors, the WSD PDT 2P FAN sensor provides a minimum fan run-time setting so that air circulation requirements (such as ASHRAE 62.2) can be met without sacrificing energy savings.

Utilizing two isolated power relays, the WSD PDT 2P FAN is factory set to automatically turn both the lighting and fan load on when initial occupancy is detected. The settings of the WSD **PDT 2P FAN** sensor can be programmed, without removing the switch plate, by entering simple command sequences via the push-buttons.

## **FEATURES**

- Patented Dual Technology with PIR / Microphonics™ Detection Two Self Contained Relays No Power Packs needed
- Minimum Run-Time Setting for Fan (Aggregate over 24 hr Period)
- Interchangeable Hot & Load Wires Impossible to Wire Backwards
- Small Motion Detection to 20 ft (6.10 m)
- **Self Grounding Mounting Strap**
- No Neutral Required / No Minimum Load
- Adjustable Time Delay / Pole
- LampMaximizer® Minimum On Time (disabled by default)
- Push-Button Programmable w/o Removing the Switch Plate
- Labeled Buttons (Light / Fan)
- Green LED Indicator

### **SPECIFICATIONS**

2.74"H x 1.68"W x 1.63"D (6.96 cm x 4.27 cm x 4.14 cm) (not Size:

including ground strap)

Weight: 5 oz

Single gang switch box Mounting: Mounting Height: 30-48 in (76.2 - 121.9 cm)

> Color: White, Ivory, Gray, Lt. Almond

Maximum Load/ Pole: (Single Phase Power Only) 800 W @ 120 VAC, 1200 W @ 277 VAC,

1500 W @ 347 VAC

Minimum Load: None 1/4 HP Motor Load:

> Frequency: 50/60 Hz (timers are 1.2x for 50 Hz)

**ROHS** compliant TITLE 20/24

# **Acuity**Controls.

Sensor Switch...

# WSD PDT 2P FAN

Wall Switch Sensor w/ Minimum Fan Run-Time



## Warranty

Five-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms\_and\_conditions.aspx

**Note**: Actual performance may differ as a result of end-user environment and application.

Specifications subject to change without notice.

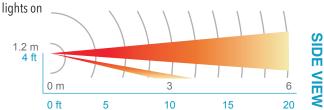
ORDERING INFORMATION

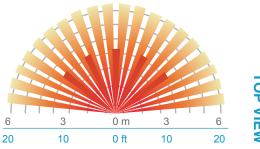


WSD PDT 2P FAN						Example: WSD PDT 2P FAN GY	
Series		Voltage		Color		Temp/Humidity	
WSD PDT 2P FAN	Wall Switch Sensor	[blank] 347	120 - 277 VAC 347 VAC	WH IV GY AL	White Ivory Gray Lt. Almond	Blank LT	Standard Low Temp

### WALL SWITCH LENS W/ MICROPHONICS™

- Small motion (e.g. hand movements) detection up to 20 ft (6.10 m)
- Large motion (e.g. walking) detection up to 50 ft (15.24 m)
- Wall-to-Wall coverage
- Microphonics™ provides overlapping detection of human activity over the complete PIR coverage area
- Advanced filtering is utilized to prevent non-occupant noises from keeping the





**TOP VIEW** 

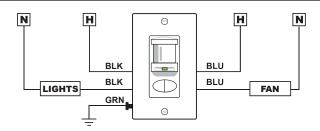
# WIRING (DO NOT WIRE HOT)

#### STANDARD WIRING

BLACK\* - Line Input (Hot) 1 \*BLACK wires can be reversed BLACK\* - Lighting Load Output BLUE\*\* - Line Input (Hot) 2 \*BLUE wires can be reversed BLUE\*\* - Fan Output GREEN SCREW - Ground (required connection)

## 347 VAC OPTION (347)

Black wires are replaced w/ Red wires



**Note:** Connection to Ground required for sensor to function. Unit powers off BLK Hot (Line) Input

### **CONTROL MODES**

# ON MODES (programmable per pole, i.e. Pole 1 = Lights, Pole 2 = Fan)

**AUTOMATIC ON (default Pole 1 & 2) -** Lights/fan come on when occupancy is detected.

**MANUAL ON -** Requires the occupant to manually turn on the lights/fan via the push-button.

**REDUCED TURN ON** - Sensor is initially set to 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 (programmable per pole)**

PREDICTIVE OFF MODE (default Pole 1 & Pole 2) - This mode allows occupants to turn the lights/fan off via the switch without losing the convenience of having the lights/fan automatically turn on when they re-enter the room. Pressing the switch turns the lights/fan off and temporarily disables the occupancy detection in the sensor. After a short exit time delay, the occupancy detection reactivates and monitors for an additional grace period. If no occupancy is detected, the zone will remain in Automatic On operation. If occupancy is detected, the zone will go to a Permanent Off mode, requiring the switch to be pressed again in order to turn the lights/fan on and restore the sensor to Automatic On operation.

PERMANENT OFF - Pressing the switch turns the lights/fan and the sensor off. Lights/fan will not come on until switch is pressed again.

**SWITCH DISABLE** - Prevents user from manually turning off the lights/fan via the push-button. Button can still be utilized for programming.