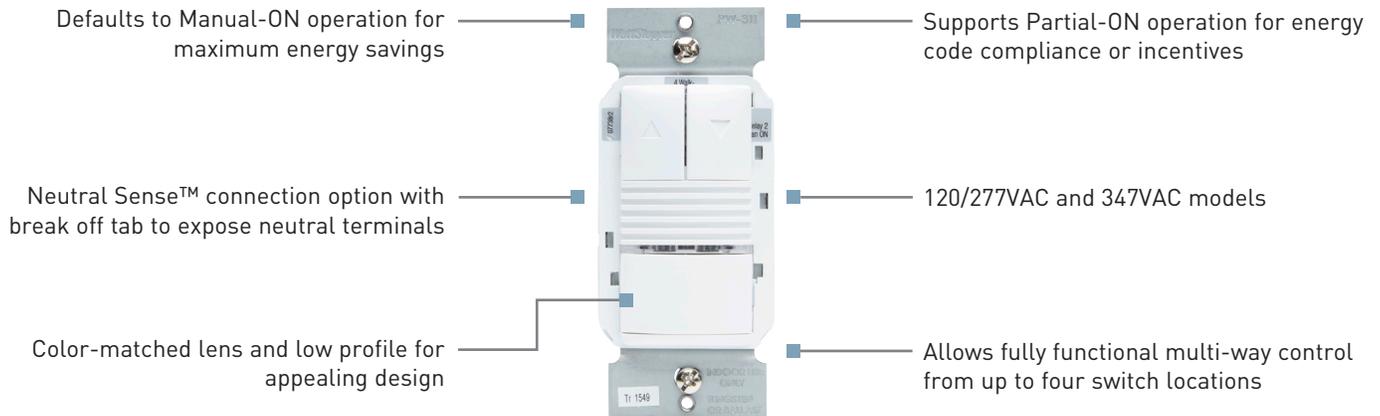


# PASSIVE INFRARED 0-10 VOLT DIMMING WALL SWITCH OCCUPANCY SENSOR

| PW-311



## Description

The PW-311 passive infrared (PIR) dimming wall switch sensor can turn lights OFF and ON based on occupancy and allow the user to increase or decrease the lighting level. It works with 0-10 VDC dimming drivers and ballasts to control lighting loads including LEDs.

## Operation

The PW-311 installs in a single gang junction box with or without neutral wiring. Factory default operation is for Manual-ON, so that users turn lights on only when needed. It uses PIR technology to detect occupancy. Once the space is vacated and the time delay elapses, lights automatically turn OFF. DIP switch settings enable a variety of control options such as Auto-ON operation, high and low trim, ramp up and fade down times, power loss mode, smart light level, walk-through and test modes. Multiple sensors may be used to dim a lighting load from up to four locations.

## Features

- Neutral Sense™ and optional neutral wiring simplifies 2011 NEC-compliant installation
- Vandal resistant lens combines precise coverage with durability
- Presentation mode may be deactivated to allow Auto-ON operation after 15 second time delay
- Optional Smart Light Level adapts ambient light hold off threshold to meet user needs
- Selectable walk-through mode turns lights off three minutes after the room is initially occupied if no motion is detected after the first 30 seconds
- Test mode allows quick and easy verification of coverage
- Selectable audible and/or visual alerts for impending shutoff
- LED indicates occupancy detection
- Service mode allows sensor to operate as a service switch in the unlikely event of a failure
- Zero-crossing for long relay life
- No derating required for multi-gang applications
- Sensor coverage tested to NEMA Guide Publication WD 7-2000
- Compatible with decorator wall plates
- This product meets the material restrictions of RoHS

## Partial-ON Option

When set for Automatic-ON operation, the PW-311 typically comes ON to the last non-zero light level for occupant comfort and convenience. However, this default setting may be changed to a fixed light level value of 50%, 75% or 100%. The dimmed level options (Preset On Level) support new state and federal energy code requirements.

## Applications

The PW-311 sensor is ideal for enclosed spaces with clear line of sight of the occupant. Common applications include small offices, small conference rooms and lunch/break rooms. It can be used for a two-wire or three-wire installation, either to work with existing wiring, or to meet recent local or national electrical code requirements. An easy-to-break plastic tab covers neutral screw terminals. Once the sensor is connected to neutral it complies with all codes that restrict current leakage to ground.

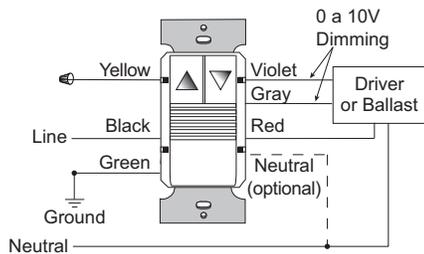
PROJECT	LOCATION/ TYPE

## Specifications

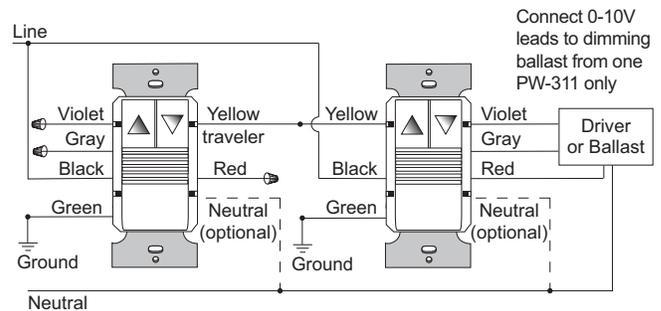
- PW-311: 120/277VAC; 50/60Hz
- PW-311-347: 347VAC; 50/60Hz
- Dimming control signal: 0-10VDC, sinks up to 50mA for control of compatible ballasts (12 if each sources 2mA); Class 1 wiring
- Time delays: 3, 5, 15 or 30 minutes, walk-through, test-mode
- Power up after power loss: On, Off or last state
- Coverage: Major motion 35' x 30'  
Minor motion 20' x 15'
- Sensitivity adjustment: PIR (high/low)
- Dimensions (L x W x D): 2.73" x 1.75" x 1.81" (69mm x 44mm x 46mm)
- UL and cUL listed (E101196)
- Five year warranty

## Installation and Wiring

### Wiring Diagrams



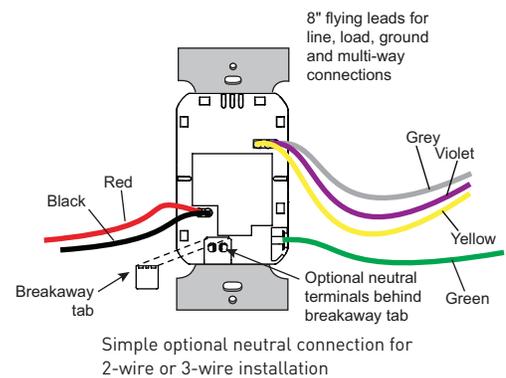
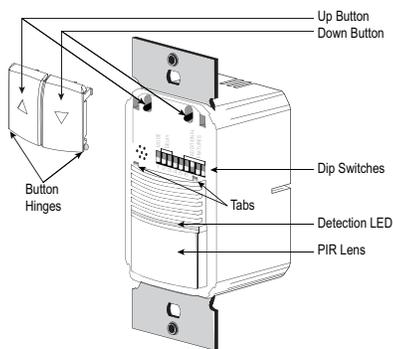
Note: Requires Class 1 wiring for 0-10V dimming.



Multi-way wiring

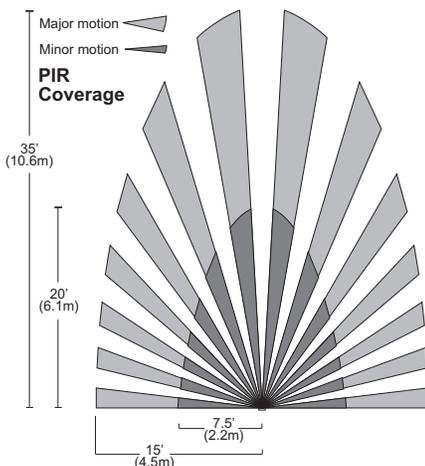
Connect 0-10V leads to dimming ballast from one PW-311 only

### Product Controls

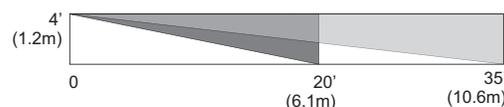


Simple optional neutral connection for 2-wire or 3-wire installation

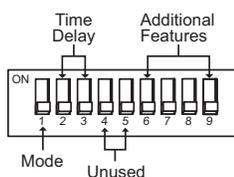
## Coverage Patterns



For best performance, Legrand recommends using this sensor in spaces no larger than 15' x 12'.



## DIP Switch Settings



Mode	1
Manual - On	↑
Auto - On	↓

Time Delay	2	3
Test/3 min	↓	↓
5 minutes	↓	↑
<b>15 minutes</b>	↑	↓
30 minutes	↑	↑

↑ = ON ↓ = OFF

Default Values Shown in **Bold**

Additional Features	6	7	8	9	Green LED # of Blinks
Exit Programming Mode	↓	↓	↓	↓	
Visual Alert	↓	↓	↓	↑	1=OFF, 2=ON
Audio Alert	↓	↓	↑	↑	1=ON, 2=OFF
Walk-Thru	↓	↓	↑	↑	1=OFF, 2=ON
PIR Sensitivity	↓	↑	↓	↓	1=100%, 2=50%
High Trim	↓	↑	↓	↑	1=10V, 2=Manual Adjustment
Low Trim	↓	↑	↑	↓	1=0V, 2=Manual Adjustment
Ramp Up Time	↓	↑	↑	↑	1=1, 2=2.5, 3=5, 4=10 seconds
Fade Down Time	↑	↓	↓	↓	1=2.5, 2=5, 3=15, 4=30 seconds
Light Level Adjust	↑	↓	↓	↑	1=Disable, 2=Enable, 3=Smart Light Level
Power Loss Mode	↑	↓	↑	↓	1=Keep Last State, 2=Default On, 3=Default Off
Presentation Mode	↑	↓	↑	↑	1=ON, 2=OFF
Service Mode	↑	↑	↓	↓	1=OFF, 2=ON
Preset On Level	↑	↑	↓	↑	1=Last Non-Zero Value, 2=50%, 3=75%, 4=100%
Non-Dim Mode	↑	↑	↑	↓	1=OFF, 2=ON
Reset To Default	↑	↑	↑	↑	Press and Hold UP or DOWN for 5 seconds

## Ordering Information

Catalog #	Color	Voltage	Load Rating
<input type="checkbox"/> PW-311-W	White	120VAC; 50/60Hz	@ 120VAC: 0-1000W ballast, E-ballast, LED, tungsten; 1/4hp motor
<input type="checkbox"/> PW-311-W-U	White	or	
<input type="checkbox"/> PW-311-LA	Lt. Almond	277VAC; 50/60Hz	or
<input type="checkbox"/> PW-311-I	Ivory		@ 277VAC: 0-1200W ballast, E-ballast, LED; 1/4hp motor
<input type="checkbox"/> PW-311-I-U	Ivory		
<input type="checkbox"/> PW-311-G	Grey		
<input type="checkbox"/> PW-311-B	Black		
<input type="checkbox"/> PW-311-R	Red		
<input type="checkbox"/> PW-311-R-U	Red		
<input type="checkbox"/> PW-311-347-W	White		347VAC; 50/60Hz
<input type="checkbox"/> PW-311-347-LA	Lt. Almond		
<input type="checkbox"/> PW-311-347-I	Ivory		
<input type="checkbox"/> PW-311-347-G	Grey		
<input type="checkbox"/> PW-311-347-B	Black		
<input type="checkbox"/> PW-311-347-R	Red		

-U = BAA/TAA compliant. Product is compliant with Buy American Act and Trade Agreement Act

Order wall plate separately.