PW-100 Passive Infrared Wall Switch Sensor

High sensitivity and dense coverage for exceptional performance

Color-matched lens and low profile for appealing design

Multiple features such as selectable walk-through, test and presentation modes

SmartSet™ technology for increased energy savings

Part of a new comprehensive line of PIR, Ultrasonic and Dual Technology wall switch sensors
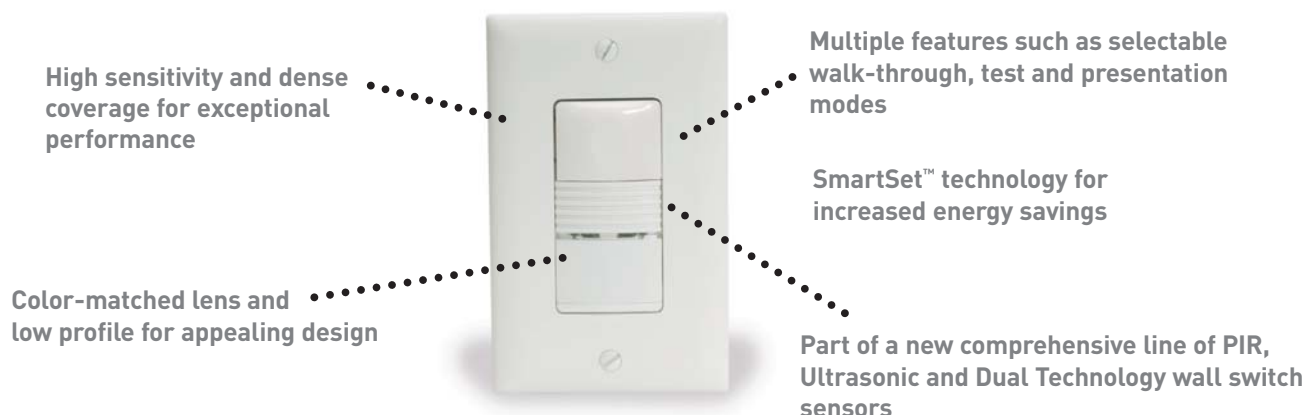
PROJECT	
LOCATION/TYPE	

Product Overview

Description

The PW-100 passive infrared (PIR) wall switch sensor turns lights ON and OFF based on occupancy. It is characterized by high sensitivity to small and large movements, appealing aesthetics, and variety of features.

Operation

The PW-100 replaces existing wall switches and fits in a single gang junction box. It uses advanced PIR technology to detect occupancy and turns lighting ON. Once the space is vacated and the time delay elapses, lights automatically turn OFF. DIP switch settings allow for a variety of control options such as Auto-ON or Manual-ON operation, walk-through, and test modes.

SmartSet™

Using SmartSet technology, the PW-100 continuously monitors the controlled space to identify usage patterns and automatically adjust the time delay for optimal energy efficiency. The sensor assigns short delays (as low as seven minutes) for times when the space is usually vacant, and longer delays (up to 30 minutes) for busier times. SmartSet is also able to differentiate electrical noise from human motion for greater performance.

Applications

The PW-100 sensor is well suited for small, enclosed spaces with clear line of sight of the occupant. Common applications include small office, small conference room and lunch/break rooms.

Features

- Detection Signature Processing eliminates false triggers and provides immunity to RFI and EMI
- Zero-crossing for long relay life
- Vandal resistant lens combines precise coverage with durability
- Choice of Auto-ON or Manual-ON operation
- Selectable SmartSet automatically adjusts time delay for maximum savings
- 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
- Selectable test mode allows quick and easy adjustments

- Selectable audible and/or visual alerts for impending shutoff
- In automatic mode, sensor returns automatically to Auto-ON after lights are turned off manually; ideal for presentations
- LED indicates occupancy detection
- Features built-in light level sensing with simple, one-step setup
- Override mode allows sensor to operate as a service switch in the unlikely event of a failure
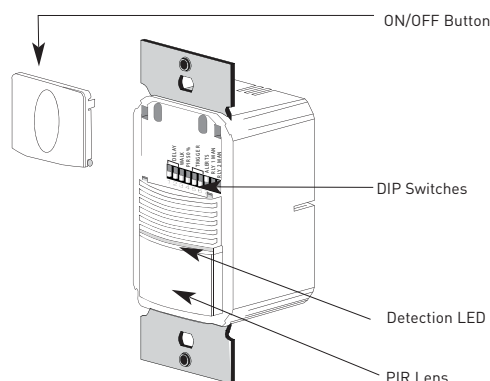- NEMA WD 7 guideline utilized for coverage testing

Specifications

- PW-100: 120/230/277 VAC; 50/60 Hz
  @ 120 VAC, 0-800 W ballast or tungsten,1/6 hp
  @ 230/277 VAC, 0-1200 W ballast
- PW-100-347: 347 VAC; 50/60Hz, 0-1500 W
  ballast
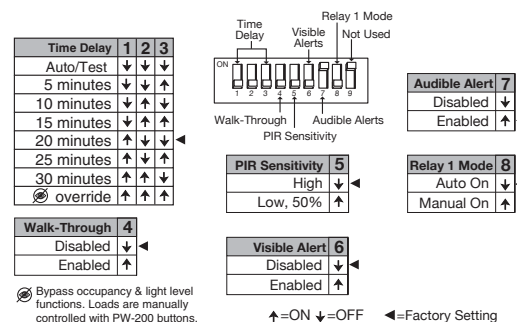- Time delays: SmartSet (automatic), fixed (5, 10, 15, 20, 25 or 30 minutes), walk-through, test-mode

- Coverage: Major motion 35'x 30'
  Minor motion 20' x 15'
- Sensitivity adjustment: PIR (high/low)
- Dimensions: 2.73" x 1.76" x 1.83"
  (69.3mm x 44.7mm x 46.5mm) L x W x D
- UL and CUL listed; five year warranty
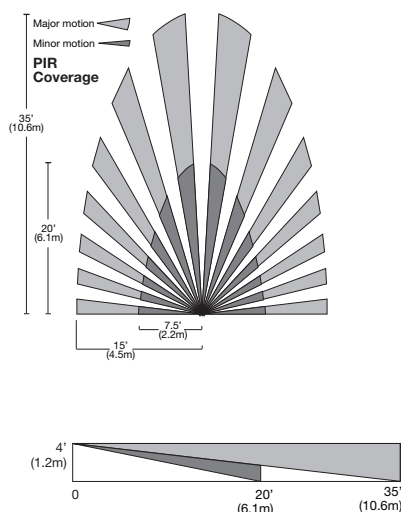
Controls & Settings

Product Controls

ON/OFF Button

DIP Switches

Detection LED

PIR Lens

DIP Switch Settings

Time Delay	1	2	3
Auto/Test	↓	↓	↓
5 minutes	↓	↓	↑
10 minutes	↓	↑	↓
15 minutes	↓	↑	↑
20 minutes	↑	↓	↓ ◄
25 minutes	↑	↓	↑
30 minutes	↑	↑	↓
⊘ override	↑	↑	↑

Walk-Through	4
Disabled	↓ ◄
Enabled	↑

PIR Sensitivity	5
High	↓ ◄
Low, 50%	↑

Visible Alert	6
Disabled	↓ ◄
Enabled	↑

Audible Alert	7
Disabled	↓
Enabled	↑ ◄

Relay 1 Mode	8
Auto On	↓ ◄
Manual On	↑

⊘ Bypass occupancy & light level functions. Loads are manually controlled with PW-200 buttons.

↑=ON ↓=OFF ◄=Factory Setting

Coverage & Wiring

Coverage Pattern

Major motion
Minor motion
PIR Coverage

35' (10.6m)
20' (6.1m)
7.5' (2.2m)
15' (4.5m)

4' (1.2m)
0   20' (6.1m)   35' (10.6m)

* For best performance, Watt Stopper/Legrand recommends using this sensor in spaces no larger than 15' x 12'

PW-100/347 Single Level Lighting

Neutral
Load
Line   Black   Red
Ground   Green/Yellow
Ground   Green
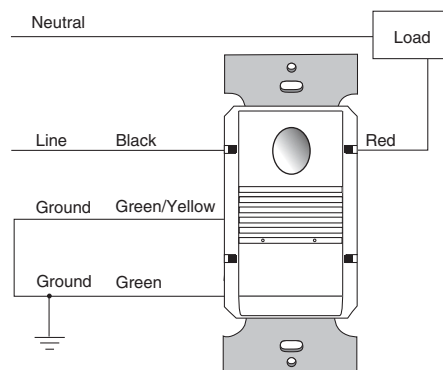
Ordering Information

Catalog No.	Color	Voltage	Load Rating
☐ PW-100-W	White	120/230/277 VAC; 50/60 Hz	@ 120 VAC, 0-800 W ballast or tungsten,1/6 hp @ 230/277 VAC, 0-1200 W ballast
☐ PW-100-LA	Lt. Almond		
☐ PW-100-I	Ivory		
☐ PW-100-G	Grey		
☐ PW-100-B	Black		
☐ PW-100-347-W	White	347 VAC; 50/60 Hz	0-1500 Watt Ballast
☐ PW-100-347-LA	Lt. Almond		
☐ PW-100-347-I	Ivory		
☐ PW-100-347-G	Grey		
☐ PW-100-347-B	Black		

One ASP-211 single-gang cover plate included. Order ASP-422 for blank 2-gang cover plate, ASP-432 for 2-gang cover plate with switch option (specify color).