

# ONW-P – NeoSwitch PIR Low Voltage Wall Switch Sensor

Catalog#	Prepared by
Project	Date
Comments	Type

## Overview

The Passive Infrared Low Voltage Occupancy Sensing Wall Switch is a motion sensing lighting control and that is used to for energy savings and convenience. Low Voltage sensors utilize an isolated Form C relay that integrates directly with lighting control, building, and HVAC systems. Low voltage switches do not require conduit in most markets thus lowering installation costs.

## Features

- Selectable built-in light level sensor
- NEMA WD7 Guide robotic method utilized to verify coverage patterns
- Tracking/HVAC Mode


PIR  
Activated


Self-Adjusting



## Specifications

<b>Technology</b>	Passive Infrared (PIR)
<b>Electrical Ratings</b>	<b>Input:</b> 10-30 VDC from Greengate Switchpack or Greengate system. Maximum current needed is 25mA per sensor <b>Output:</b> Open collector output can switch up to ten Greengate Switchpacks
<b>Isolated Form C Relay Ratings</b>	1A 30 VDC/VAC
<b>Time Delays</b>	Self-Adjusting, 15 seconds/test (10 min. Auto), Selectable 5, 15, 30 minutes
<b>Coverage</b>	Major motion - 36' x 30' Minor motion - 20' x 16'
<b>Light Level Sensing</b>	0 to 200 foot-candles
<b>Operating Environment</b>	Temperature: 32°F - 104°F (0°C - 40°C) Relative humidity: 20% to 90% non-condensing For indoor use only
<b>Housing</b>	Durable, injection molded housing. ABS resin complies with UL 94V-0
<b>Size</b>	Mounting Plate/Strap Dimensions: 4.195"H x 1.732"W (106.55mm x 44mm) Product Housing Dimensions: 2.618"H x 1.752"W x 1.9"D (66.5mm x 44.5mm x 48.26mm)
<b>LED Indicators</b>	Red LED for PIR detection; Green LED acts as EcoMeter or night light locator
<b>Standards</b>	FCC Compliant cULus Listed RoHS Compliant



## Operation

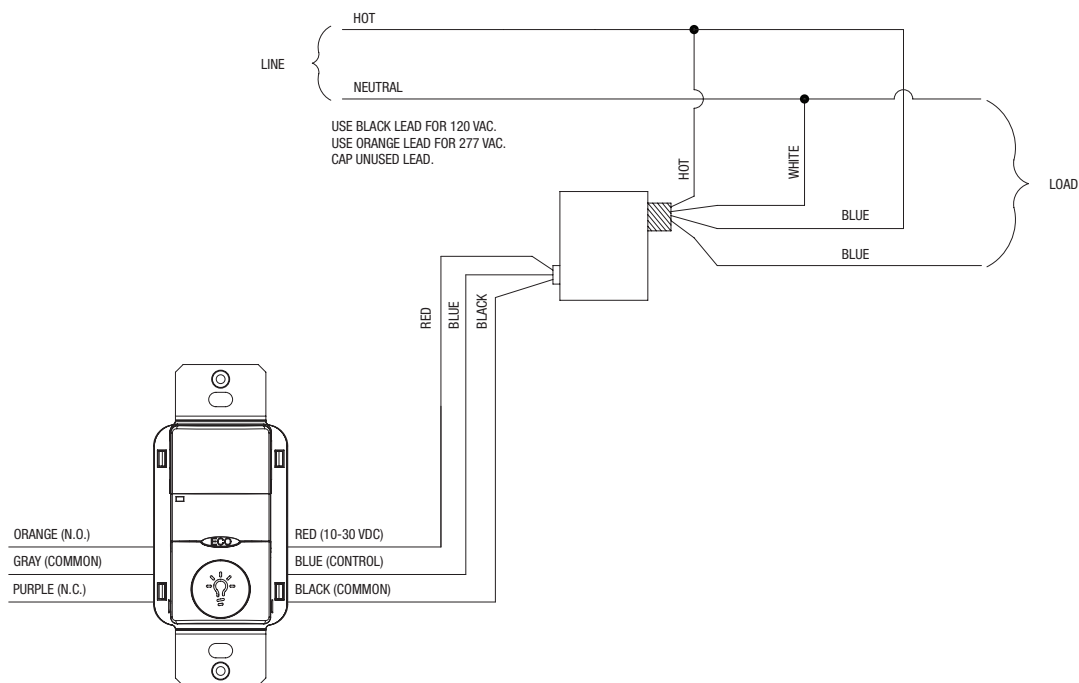
The ONW-P-1001-SP is designed to detect motion from a heat-emitting source (such as a person entering a room) within its field-of-view and automatically switch lights on. These sensors have multi-segmented lenses. For units to sense motion, the person must cross between two segments. The distance between segments increases the farther you are from the sensor, so motion has to be larger the farther you are from the unit. PIR sensors are considered line-of-sight sensors, meaning that the sensor must be able to have a direct line-of-sight to the person making the motion. In Automatic On Mode, the lights turn ON when a person enters the room. In Manual On Mode, the lights are turned ON by pressing the universally recognized light icon pushbutton. The sensor includes self-adaptive technology that continuously self-adjusts sensitivity and time delay in real-time, maximizing the potential energy savings that are available in the particular application. The EcoMeter provides a visual indicator of energy usage, increasing end user awareness and reminding individuals to take control of their lighting to maximize energy savings. HVAC mode allows the load connected to the Form C BAS relay to remain on when the lights are turned OFF manually. Applications may include keeping the room at a desired temperature while giving a presentation and the lights are OFF.

## Applications

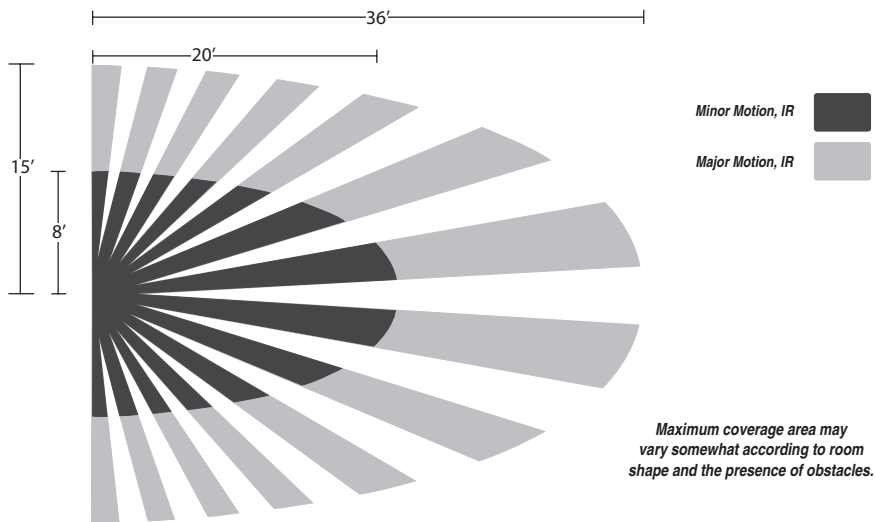
- Private Offices
- Small Conference Rooms
- Lunch/Break Rooms
- Small Classrooms
- Small Restrooms (No Stalls)
- Small Lounges
- Small Waiting Rooms
- Small Closets
- Small Storage Areas

## Wiring Diagrams

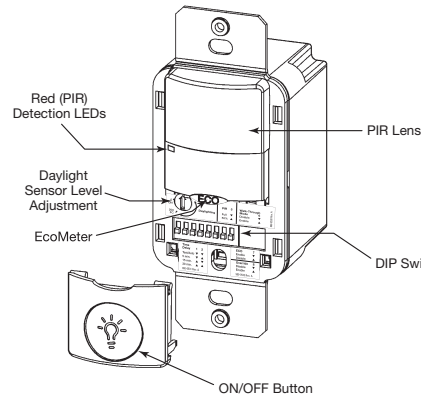
### Low Voltage Wiring Diagram



### Coverage



Controls



Red (PIR) Detection LEDs

PIR Lens

Daylight Sensor Level Adjustment

EcoMeter

DIP Switches

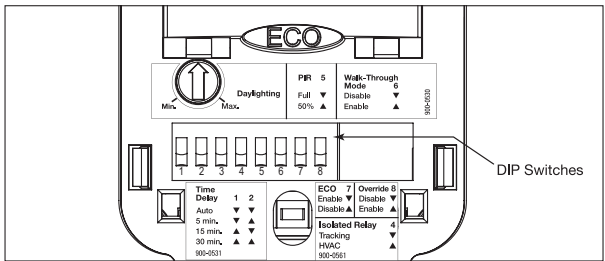
ON/OFF Button

**DIP Switch Legend**

DIP Switch	Time Delay		Activation		Isolated Relay	PIR Sensitivity	Walk-Through Mode	EcoMeter	Override			
	1	2	Relay 1									
Auto*	▼	▼	Auto	▼	Tracking	▼	Full	▼	Disable	▼	Disable	▼
5 Minutes	▼	▲	Manual	▲	HVAC	▲	50%	▲	Enable	▲	Disable	▲
15 Minutes	▲	▼										
30 Minutes	▲	▲										

*\*Self-Adjusts to 10 min. user mode*

Default = ☐



DIP Switches

Ordering

\*One single gang wallplate included.

Catalog #	Ratings	Coverage
ONW-P-1001-SP-* (* - W, V, LA, G, B)	10-30 VDC Input with isolated Form C relay	180°; 1000 sq. ft.

\* White, Ivory, Light Almond, Gray, Black

**Note:** Not all colors are available in stock and some color options may have extended lead times.