# VNW-D – NeoSwitch Dual Tech/Single Level Wall Switch Vacancy Sensor (Ground Required)

| Catalog# | Prepared by |
|---|---|
| Project | Date |
| Comments | Type |



PIR Activated　　Ultrasonic Activated　　Self-Adjusting AUTO　　California Title 20 Compliant

## Overview

The Dual Technology Single Level Vacancy Sensing Wall Switch is a motion sensing lighting control and conventional wall switch all-in-one that is used to for energy savings and convenience. It does not require a neutral wire for installation making it ideal for retrofit applications.

## Features

- Requires Manual On for activation
- Air-gap switch ensures no leakage current to load
- Selectable built-in light level sensor
- Products tested to NEMA WD 7 - 2011 Occupancy Motion Sensors Standard
- LED Rated

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## Specifications

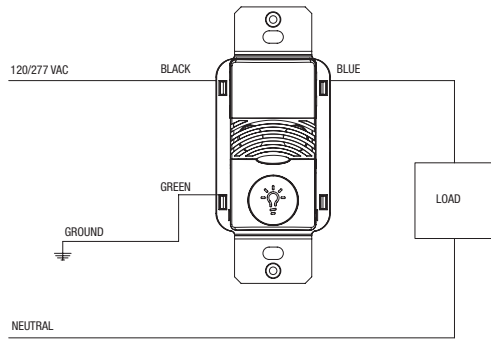| Technology | Passive Infrared (PIR) and Ultrasonic (US) |
|---|---|
| Electrical Ratings (Per Relay) | **120 VAC:** Incandescent/Tungsten – Max. load: 6.7 amps, 800W, 50/60 Hz Fluorescent/Ballast – Max. load:10 amps, 1200W, 50/60 Hz Electronic Ballast (LED) 3A |
| | Motor Load: ¼ HP @ 125 VAC |
| | **277 VAC:** Fluorescent/Ballast – Max. load: 9.8 amps, 2700W, 50/60 Hz Electronic Ballast (LED) 3A |
| Ballast Compatiblity | Compatible with LED loads, magnetic and electronic ballasts |
| Time Delays | Self-Adjusting, 15 seconds/test (10 min. Auto) Selectable 5, 15, 30 minutes |
| Coverage | Major motion - 36' x 30' |
| | Minor motion - 20' x 16' |
| Light Level Sensing | 0 to 200 foot-candles |
| Operating Environment | Temperature: 32°F - 104°F (0°C - 40°C) |
| | Relative humidity: 20% to 90% non-condensing |
| | For indoor use only |
| Housing | Durable, injection molded housing. ABS resin complies with UL 94V-0 |
| Size | Mounting Plate/Strap Dimensions: 4.195"H x 1.732"W (106.55mm x 44mm) |
| | Product Housing Dimensions: 2.618"H x 1.732"W (110.49mm x 44mm) |
| LED Indicators | Red LED for PIR detection; Green LED for Ultrasonic detection |
| Standards | FCC Compliant cULus Listed RoHS Compliant    c(UL)us **RoHS** |

## Description/Operation

The VNW-D-1001-MV combines Ultrasonic (US) and Passive Infrared (PIR) sensor technologies to monitor a room for occupancy to deliver maximum energy savings and ensure the greatest sensitivity and coverage for tough applications without the threat of false triggers. Manual On switch is used to turn the lights ON and then either or both technologies are used to keep the lights ON. 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.
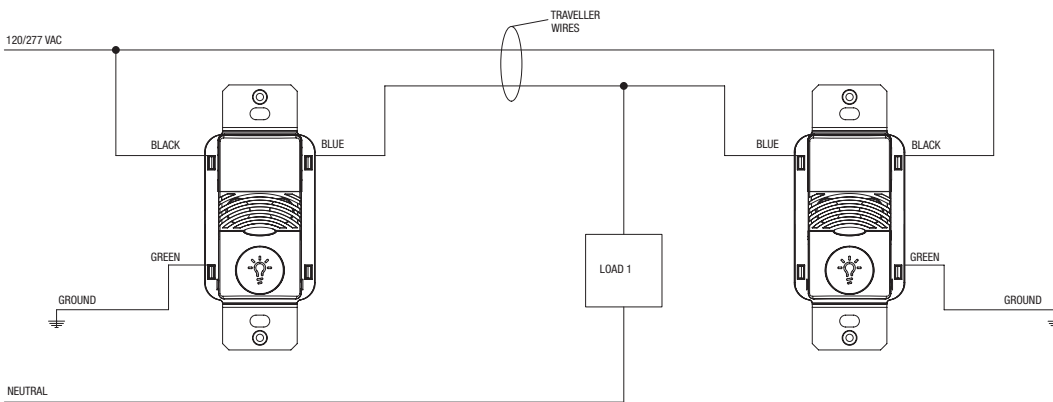
## Applications

- Private Offices
- Small Conference Rooms
- Lunch/Break Rooms
- Small Classrooms
- Small Restrooms (1-2 Stalls)
- Small Lounges
- Small Waiting Rooms
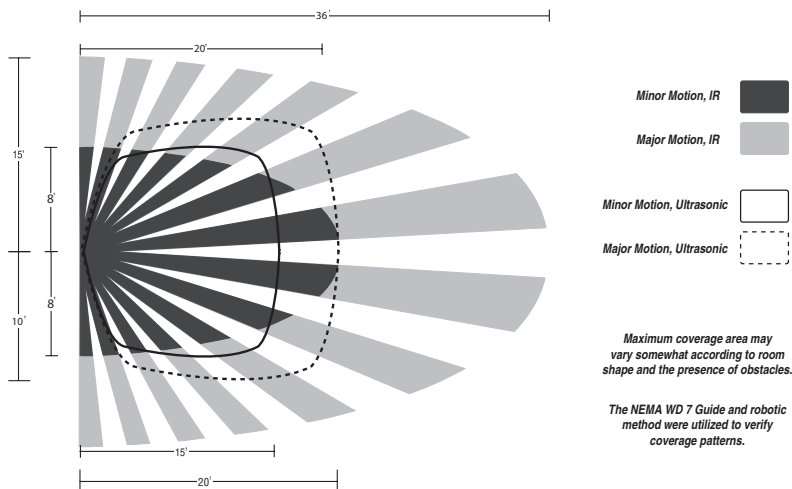- Small Closets
- Small Storage Areas

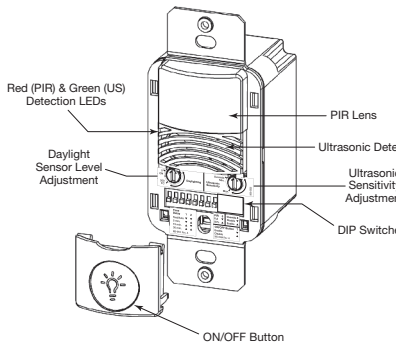## Wiring Diagrams

**Single Level Switching – Single Circuit**

120/277 VAC　BLACK　　BLUE

GREEN

GROUND

LOAD

NEUTRAL

**Three-way wiring diagram: Lights will turn OFF automatically when sensor that detected motion last, times out.**

TRAVELLER WIRES

120/277 VAC

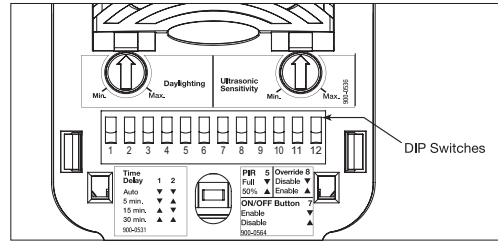BLACK　　BLUE　　　　　　　　　　BLUE　　BLACK

GREEN　　　　　　　　　　　　　　　　GREEN

GROUND　　　　　　LOAD 1　　　　　　GROUND

NEUTRAL

## Coverage

36'

20'

15'

8'

8'

10'

15'

20'

Minor Motion, IR

Major Motion, IR

Minor Motion, Ultrasonic

Major Motion, Ultrasonic

*Maximum coverage area may vary somewhat according to room shape and the presence of obstacles.*

*The NEMA WD 7 Guide and robotic method were utilized to verify coverage patterns.*

## Controls



**DIP Switch Legend**

| | Time Delay | | Not Used | | PIR Sensitivity | Not Used | ON/OFF Button | | Override | | Not Used | Maintain Lights On | | Not Used | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **DIP Switch** | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | 8 | | 9 | 10 | | 11 | 12 |
| 15 Sec Test/Auto* | ▼ | ▼ | | | Full ▼ | | Enable ▼ | | Disable ▼ | | | Either ▼ | | | |
| 5 Minutes | ▼ | ▲ | | | 50% ▲ | | Disable ▲ | | Enable ▲ | | | Both ▲ | | | |
| 15 Minutes | ▲ | ▼ | | | | | | | | | | | | | |
| 30 Minutes | ▲ | ▲ | | | | | | | | | | | | | |

*Self-Adjusts to 10 min. user mode

**Default =**

## Ordering

*One single gang wallplate included

| Catalog # | Ratings | Coverage | Voltage |
|---|---|---|---|
| VNW-D-1001-MV-* (* - W, V, G) | Incandescent: 0-800W @ 120V Fluorescent: 0-1200W @ 120V Fluorescent: 0-2700W @ 277V Max Load/Relay | 180°; 1000 sq. ft. | 120/277 VAC; 50/60 Hz |

* White, Ivory, Gray

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

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