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

Catalog#	Prepared by
Project	Date
Comments	Type

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

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

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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.
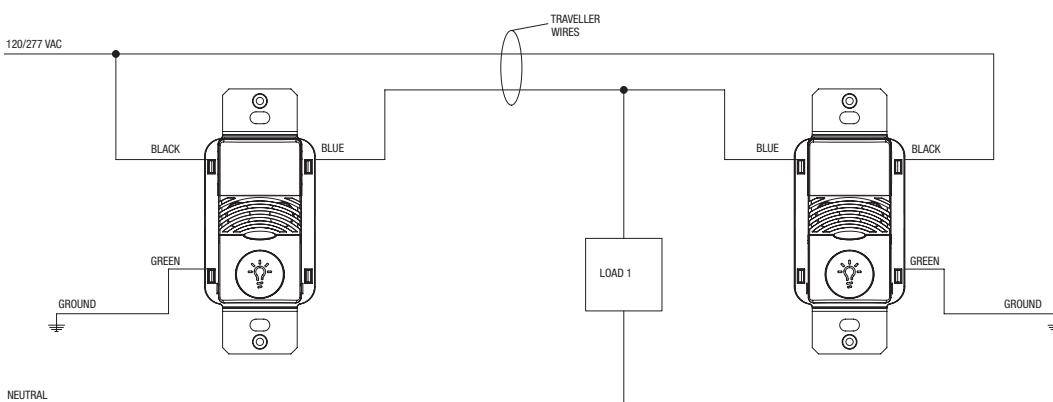
Applications

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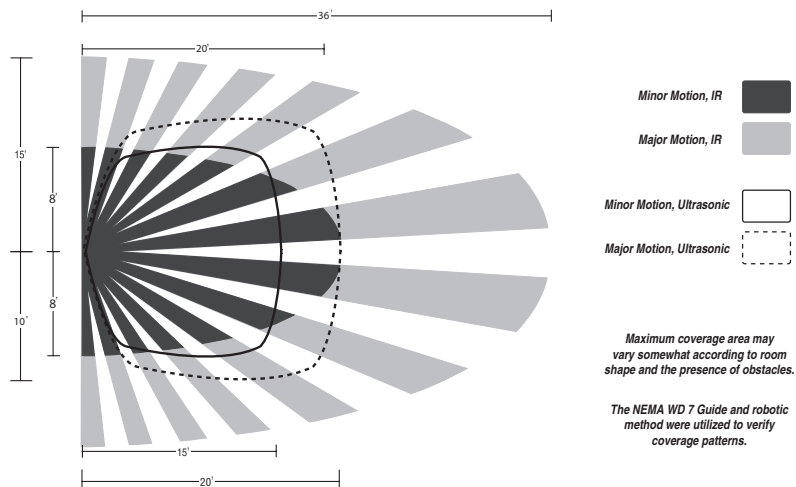- Small Closets
- Small Storage Areas

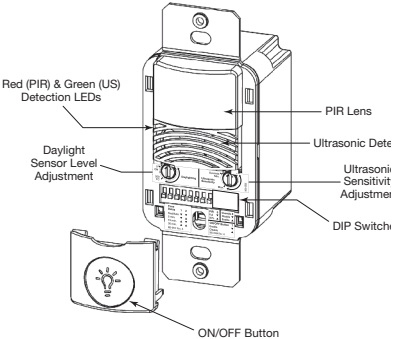## Wiring Diagrams

Single Level Switching – Single Circuit

120/277 VAC

BLACK

BLUE

GREEN

GROUND

NEUTRAL

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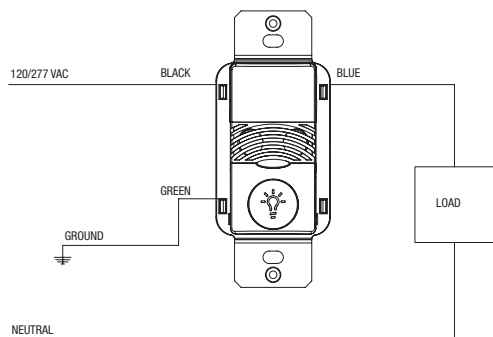
Three-way wiring diagram: Lights will turn OFF automatically when sensor that detected motion last, times out.

TRAVELLER WIRES

120/277 VAC

BLACK

BLUE

GREEN

GROUND

NEUTRAL

LOAD 1

BLUE

BLACK

GREEN

GROUND

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

Red (PIR) & Green (US) Detection LEDs

Daylight Sensor Level Adjustment

PIR Lens

Ultrasonic Dete...

Ultrasoni... Sensitivit... Adjustme...
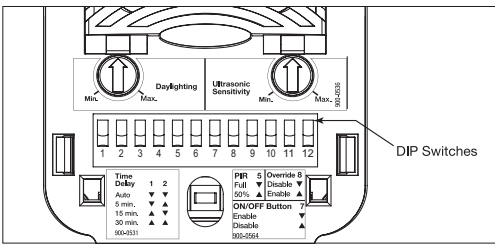
DIP Switche...

ON/OFF Button

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 =

Daylighting   Ultrasonic Sensitivity

Min.   Max.   Min.   Max.

DIP Switches

Time Delay   1 2
Auto   ▼ ▼
5 min.   ▼ ▲
15 min.   ▲ ▼
30 min.   ▲ ▲

PIR 5   Override 8
Full ▼   Disable ▼
50% ▲   Enable ▲

ON/OFF Button 7
Enable   ▼
Disable ▲

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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