Catalog Number: | Date: | Project:

OVERVIEW

The nWSX LV / nWSX PDT LV series nLight wall switch occupancy sensor provides a simple control solution for a small room, in particular one utilizing nLight enabled digital luminaires. Capable of detecting small motion up to 20 ft (6.10 m), this sensor is perfect for private offices, private rest rooms, copy rooms, closets or any small enclosed space. The nWSX LV uses Passive Infrared (PIR) detection while the nWSX PDT LV utilizes PIR/Microphonics Dual Technology (PDT). This stylish sensor can be programmed locally, via the front push-button(s), or remotely via the nLight SensorView software. The nWSX LV/nWSX PDT LV includes an integrated photocell (inhibit only – disabled by default).

FEATURES

- 100% digitial PIR detection, vandal resistant lens standard, includes wall plate (screwless sold separate)
- Push-button programmable, adjustable time delays, multiple operating modes
- Multiple nWSX sensors or WallPods can be used in 3 way(or greater) configurations w/o traveler wires
- Photocell standard (inhibit only – disabled by default) – Not available in night light versions
- Broadcasts occupancy, photocell, and switch information over a local and/or global nLight channel
- Remotely firmware upgradeable

CONTROL MODES

A control zone with an nWSX LV / nWSX PDT LV can operate in several modes:

1. Auto On / Auto Off (i.e. Fully Automatic)
2. Manual On (initial state) to Override On (with expiration timer)
3. Auto On (initial state) to Override On (with expiration timer)
4. Manual On / Automatic Off (i.e. Semi-Automatic)
5. Manual On (initial state) to Fully Automatic
6. Predictive Off Switch (returns zone to auto-on unless person remained in room after an off switch press)

*See MLO operation chart on page 2.

nWSX LV
nWSX PDT LV
Low Voltage Wall Switch Occupancy Sensor

nWSX LV
nWSX PDT LV

nWSX LV NL
nWSX PDT LV NL

nWSX LV DX
nWSX PDT LV DX

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application.

Specifications subject to change without notice.

ORDERING INFORMATION

nWSX								Example: nWSX LV WH LT
Series		**Night Light or Dimming**		**Color**				**Temp/Humidity**
nWSX LV	Passive Infrared	[blank]	None	WH	White	AL	Lt. Almond	[blank] Standard
nWSX PDT LV	Dual Technology	NL[1]	Integrated night light	IV	Ivory	BK	Black	LT Low temp
		DX	Raise/Lower dim control	GY	Gray	RD	Red	

Note:
1. Integrated night light option not available in Black.

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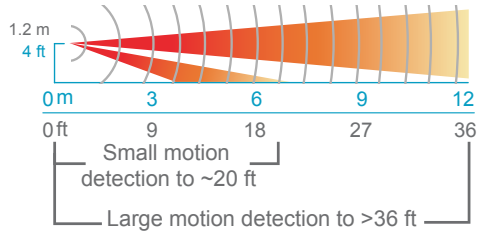
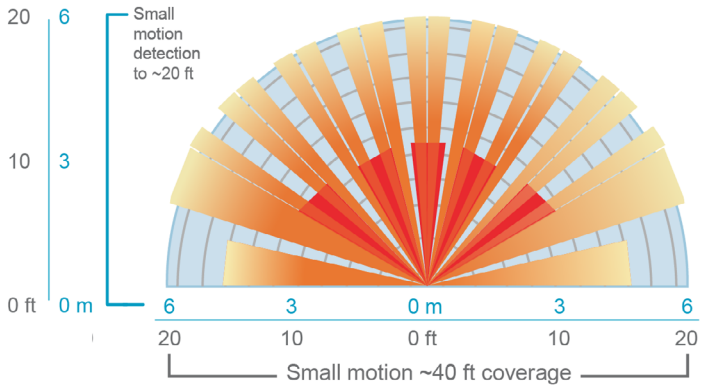
COVERAGE PATTERN

- Small Motion (e.g. hand movements) detection up to 20 ft (6.10 m)
- Large motion (e.g. walking) detection greater than 36 ft (10.97 m)
- Wall to Wall Coverage
- Passive Dual Technology (Microphonics) provides overlapping detection of human activity over the complete PIR coverage area. Advanced filtering is utilized to prevent non-occupant noises from keeping the lights on.

SIDE VIEW



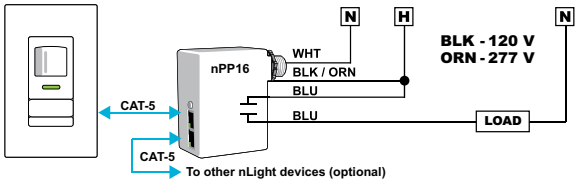
TOP VIEW



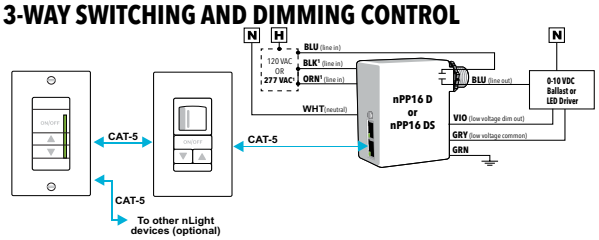
TYPICAL WIRING DIAGRAMS

Sensor power is provided via the CAT-5e connection to an nLight power pack/supply, nLight enabled digital luminaire, or nLight Bridge. T568B pin/pair assignments is recommended for CAT-5e cables.

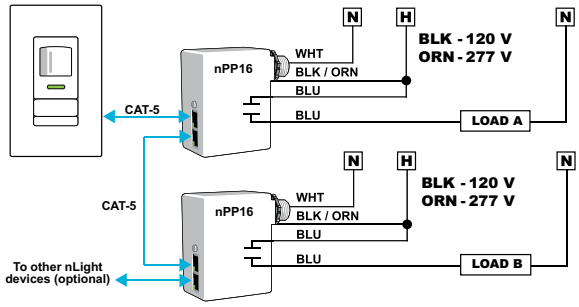
SINGLE LOAD SWITCHING



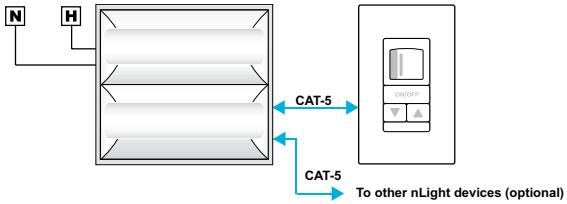
3-WAY SWITCHING AND DIMMING CONTROL



BI-LEVEL SWITCHING USING MULTI-LEVEL OPERATING MODE (MLO)



WIRING to nLIGHT ENABLED DIGITAL LUMINAIRE (e.g. RTLED)



NOTES:

- nLight enabled fixture must have **nIO LEDG**/**nIO EZ PH** for standalone operation
- Luminaires with **nIO LEDG ER**/**nIO EZ PH ER** require bus power from another device
- Provides on/off and continuous raise/lower dimming operation by default. For bi-level operation only program **nWSX LV** / **nWSX PDT LV** for Multi-Level Operating Mode (**MLO**)

MLO OPERATIONAL MODES

Additionally, an **nWSX LV** / **nWSX PDT LV** can be set to function in Multi-Level Operating Mode (**MLO**) which enables the user to select from multiple on/off lighting states using just the unit's single on/off button. This mode is designed specifically for bi-level applications and eliminates user confusion created when wall stations have multiple buttons. Several different transition sequences are available in order to comply with energy codes or user preference. Depending on the sequence selected and initial lighting state, every subsequent button push steps through states according to below table. **MLO** sequences are also available that enable high/low or low/high step operation via any nLight dimming output.

	2 State (Bi-Level) Sequence		2 State - Alternating Sequence		3 State Sequence	
Button Press #	Load A	Load B	Load A	Load B	Load A	Load B
1	On	Off	On	Off	On	Off
2	On	On	Off	On	Off	On
3	Off	Off	Off	Off	On	On
4					Off	Off

nWSX (PDT) LV - TN-408-01

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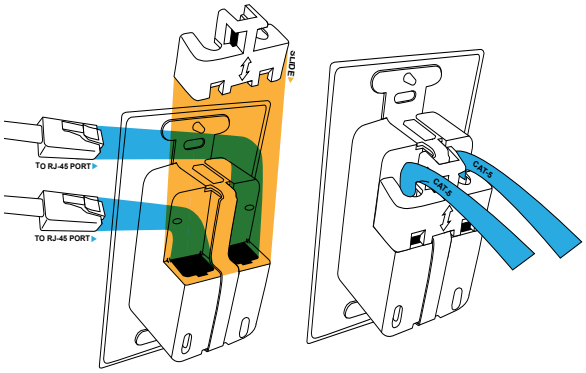
INSTALLATION

- Mount WallPod using holes that align with standard single gang switch box or low voltage ring
- Access RJ-45 ports by sliding plastic guard up
- Insert CAT-5e cable(s), T568B wiring convention recommended
- Slide guard back onto metal strap
- Interconnect unit with other nLight devices in lighting zone using CAT-5e cables
- Once power is received via CAT-5e connection, all devices in zone will automatically begin functioning together according to respective device's defaults

Attention! Only use non-booted CAT5e cables.



SPECIFICATIONS

Electrical	**Input Ratings**	15-24VDC, 3mA, Class 2 (nLight network power)
Mechanical	**Dimensions**	2.74"H x 1.68"W x 1.63"D (70mm x 43mm x 41mm) - does not include ground strap
	Mounting	Single-Gang Box or Low Voltage Ring
	Connection Type	RJ-45 nLight Network Ports (2)
Environmental	**Warrantied Operating Temperature**	32°F to 140°F (0°C to 60°C) LT Option: -4°F to 140°F (-20°C to 60°C)
	Relative Humidity	Up to 90%, Non-Condensing
	Standards/ Ratings	Energy Management Equipment, UL916 (E167435) RoHS
	Security	Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)

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