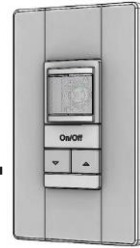




nWSXA

LOW VOLTAGE WALL SWITCH SENSOR FAMILY INSTALLATION INSTRUCTIONS



SPECIFICATIONS (nWSXA)

| | | |
|---------------------------|---|---|
| Electrical Specifications | 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) |
| | Relative Humidity | Up to 90%, Non-Condensing |
| | Standards/ Ratings | Energy Management Equipment, UL916 (E167435), RoHS |

CONTROL MODES

A control zone with an nWSXA / nWSXA PDT 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)

IMPORTANT SAFEGUARDS
WHEN USING ELECTRICAL EQUIPMENT, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED INCLUDING THE FOLLOWING:

- DO NOT USE OUTDOORS.
- DO NOT MOUNT NEAR GAS OR ELECTRIC HEATERS.
- EQUIPMENT SHOULD BE MOUNTED IN LOCATIONS AND AT HEIGHTS WHERE IT WILL NOT READILY BE SUBJECTED TO TAMPERING BY UNAUTHORIZED PERSONNEL.
- THE USE OF ACCESSORY EQUIPMENT NOT RECOMMENDED BY THE MANUFACTURER MAY CAUSE AN UNSAFE CONDITION.

MLO OPERATIONAL MODES

An nWSXA / nWSXA PDT 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 the table to the right. MLO sequences are also available that enable high/low or low/high step operation via any nLight dimming output.

| Button Press # | 2 State (Bi-Level) Sequence | | 2 State (Bi-Level) Sequence | | 2 State (Bi-Level) Sequence | |
|----------------|-----------------------------|--------|-----------------------------|--------|-----------------------------|--------|
| | 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 |

READ AND FOLLOW ALL SAFETY INSTRUCTIONS!
SAVE THESE INSTRUCTIONS AND DELIVER TO OWNER AFTER INSTALLATION



WARRANTY

5-year limited warranty.

Full warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Specifications subject to change without notice.

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

- To reduce the risk of death, personal injury or property damage from fire, electric shock, falling parts, cuts/abrasions, and other hazards please read all warnings and instructions included with and on the fixture box and all fixture labels.
- Before installing, servicing, or performing routine maintenance upon this equipment, follow these general precautions.
- Installation and service should be performed by a qualified licensed electrician.
- Maintenance should be performed by qualified person(s) familiar with the products' construction & operation & any hazards involved. Regular maintenance programs recommended.
- To be installed to a circuit with overvoltage control to Overvoltage category Cat.III or less, minimum suppression rating 6.0 kV for a 600 V ac rms system voltage
- **DO NOT INSTALL DAMAGED PRODUCT!** This product has been properly packed so that no parts should have been damaged during transit. Inspect to confirm. Any part damaged or broken during or after assembly should be replaced.

CAUTION: RISK OF PRODUCT DAMAGE

- ✓ Electrostatic Discharge (ESD): ESD can damage product(s). Personal grounding equipment should be worn during all installation or servicing of the unit.
- ✓ Do not touch individual electrical components, as this can cause ESD and affect product performance.
- ✓ Do not stretch or use cable sets that are too short or are of insufficient length.
- ✓ Do not tamper with contacts.
- ✓ Do not modify the product.
- ✓ Do not change or alter internal wiring or installation circuitry.
- ✓ Do not use product for anything other than its intended use.

WARNING - RISK OF ELECTRIC SHOCK

- ✓ Disconnect or turn off power before installation or servicing.
- ✓ Verify that supply voltage is correct by comparing it with the product information.
- ✓ Make all electrical and grounded connections in accordance with the National Electrical Code (NEC) and any applicable local code requirements.
- ✓ All wiring connections should be capped with UL approved recognized wire connectors.
- ✓ All unused connector openings must be capped.

WARNING - RISK OF BURN or FIRE

- ✓ Do not exceed maximum wattage, ratings, or published operation conditions of product.
- ✓ Do not overload.
- ✓ Follow all manufacturer's warnings, recommendations and restrictions to ensure proper operation of product.

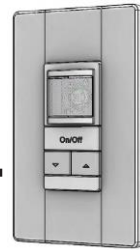
CAUTION - RISK OF INJURY

- ✓ Wear gloves and safety glasses at all times when installing, servicing or performing maintenance.



nWSXA

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OVERVIEW

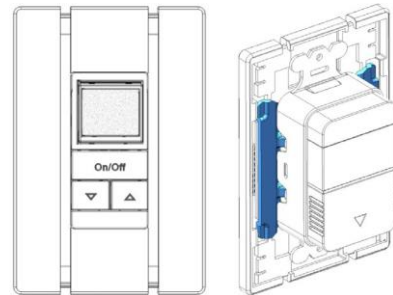
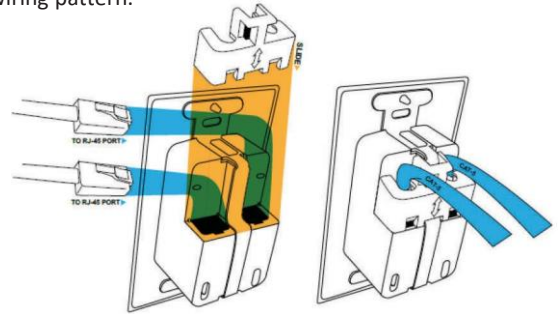
The nWSXA / nWSXA PDT series nLight wall switch occupancy sensor provides a simple control solution for a small room, in particular one utilizing nLight enabled digital luminaires. Capable of detecting small motion up to 20 ft (6.10 m), this sensor is perfect for private offices, private rest rooms, copy rooms, closets or any small enclosed space. The nWSXA uses Passive Infrared (PIR) detection while the nWSXA PDT 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 nWSXA/nWSXA PDT includes an integrated photocell (inhibit only — disabled by default).

INSTALLATION INSTRUCTIONS

nLight wall switches are powered using Class 2 CAT-5e cables composed using the T568B wiring pattern.

OUT-OF-THE-BOX DECORA WALL PLATE

- Ensure CAT-5e cable(s) are effectively fed through the gang box.
 - Push the CAT-5e cables through the back of the gang box.
- Remove the wall plate from the device by pulling the sides out to expand the wall plate and release it from the mounting flanges.
- Access RJ-45 port(s) on the WallPod by sliding the plastic guard up.
- Insert the CAT-5e cable(s) to the RJ-45 port(s).
- Slide the guard back onto metal strap.
- Connect the unit to the gang box.
 - The unit will connect to the gang box by screws, one at the top and one at the bottom.
 - To ensure correct wall plate installation, drive the screws until the mounting flanges contact the wall surface. If the screws are overdriven, the mounting flanges will disengage, preventing wall plate installation. If this happens, reattach the mounting flange(s) and install to correct position. (The flanges may be reattached by inserting the two tabs in the side of the unit and pushing the part inward to engage the three snaps.)
- Reattach the wall plate.
 - Expand the wall plate horizontally.
 - Place the wall plate onto the unit.
 - Contract the horizontally expanded wall plate onto the unit such that the side flange features seat inside the wall plate.



OFF-THE-SHELF DECORA WALL PLATE

When installing the unit with standard off-the-shelf decora wall plates, the following steps should be followed.

- Remove the Acuity wall plate from the device by pulling the sides out to expand the wall plate and releasing it from the mounting flanges.
- Unhook and remove the side flanges from the device
- Access RJ-45 port(s) on the device by sliding the plastic guard up
- Insert the CAT-5e cable(s) to the RJ-45 port(s)
- Slide the guard back onto metal strap
- Connect the unit to the gang box
- The unit will connect to the gang box by screws, one at the top and one at the bottom
- Attach the wall plate

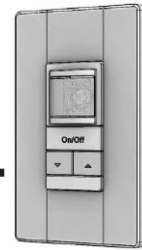


PROGRAMMING

Refer to included instruction card for default settings and directions on programming the sensor via the push-button.

For further troubleshooting guidance, please contact the Controls Technical Support Team

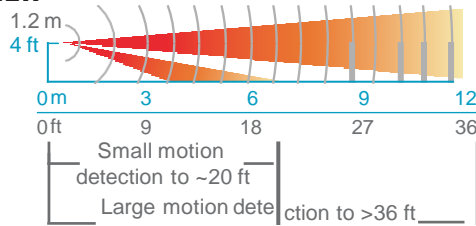
1(800)-535-2465



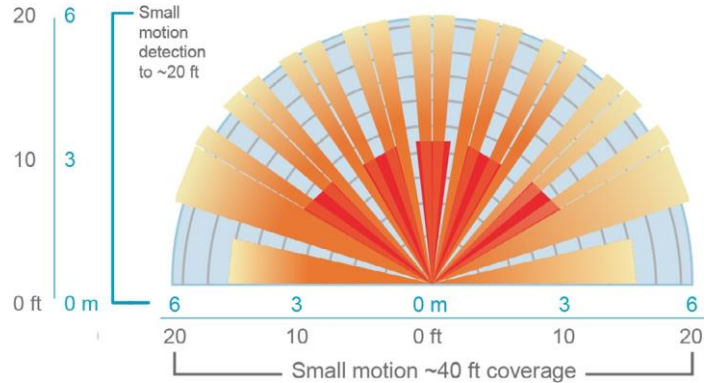
COVERAGE PATTERN

- 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



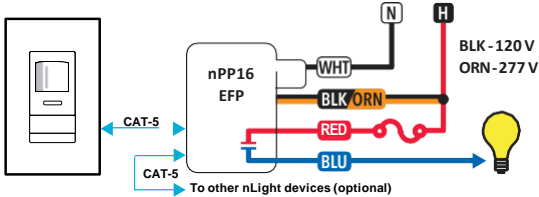
TOP VIEW



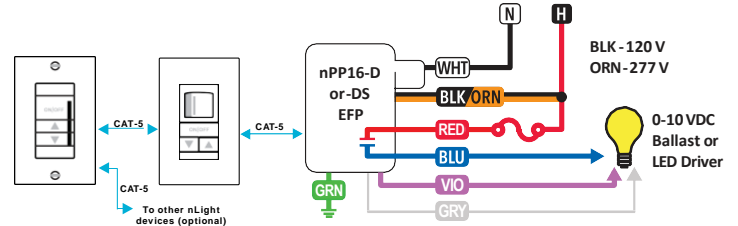
TYPICAL WIRING DIAGRAMS

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.

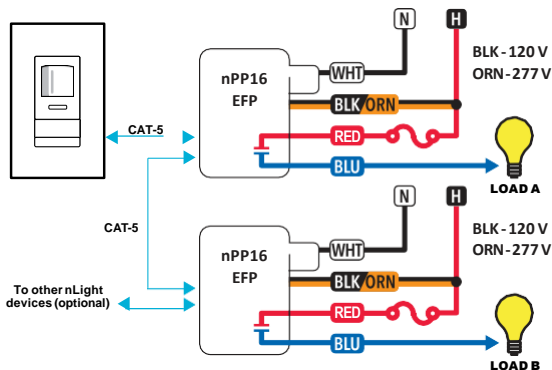
SINGLE LOAD SWITCHING



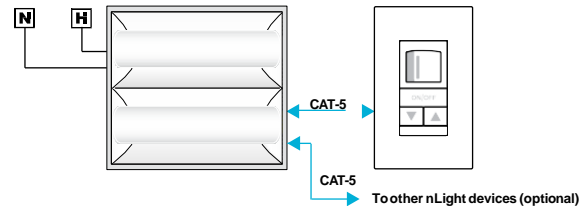
3-WAY SWITCHING AND DIMMING CONTROL



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



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



For further troubleshooting guidance, please contact the Controls Technical Support Team

1(800)-535-2465