



nES PDT 7



MICRO 360° SENSOR
EMBEDDED MOUNT • LOW VOLTAGE • DUAL TECHNOLOGY (PDT)

SPECIFICATIONS

FEATURES

- Patented Dual Technology with PIR / Microphonics Detection
- 360° Coverage
- Lens Rotates 15° - Enables Adjustment after Installation
- Communicates w/ nLight Network over CAT-5 Cabling
- Remotely Configurable/Upgradeable
- Push-Button Programmable
- Adjustable Time Delay
- Non-Volatile Settings Memory
- Green LED Indicator

PHYSICAL SPECS

- SIZE see diagrams below
- WEIGHT 3 oz
- MOUNTING
 - Required Hole Size 1.125"
 - Material Thickness 0.25" max
- COLOR White
- NETWORK CONN. 1 RJ-45 Port

ELECTRICAL SPECS

- POWER CONSUMPTION < 3 mA

ENVIRONMENTAL SPECS

- OPERATING TEMP
 - 14° to 160° F (-10° to 71° C)
- RELATIVE HUMIDITY
 - 20 to 90% non-condensing
- SILICONE FREE
- ROHS COMPLIANT

OPTIONS

AUTOMATIC DIMMING CONTROL PHOTOCELL (ADCX)

- Includes photocell that maintains total room light level by signalling other networked nLight devices (e.g. nIO, nEPP5 D, nSP5 PCD, or RT LED luminaire) to raise/lower or turn on/off the connected lighting
- Auto set-point calibration

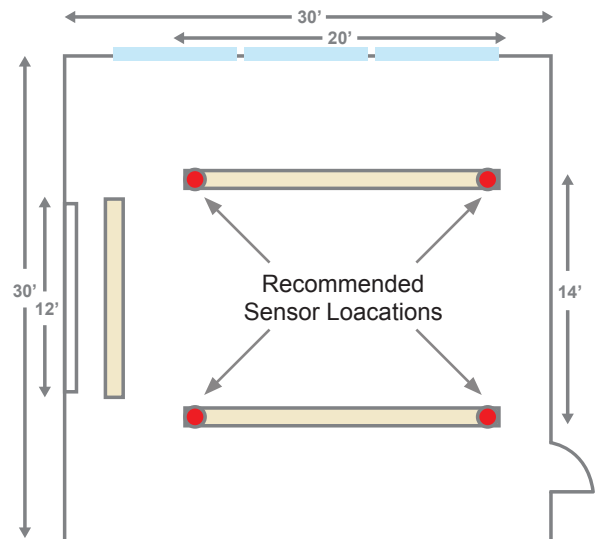
LOW TEMP/HIGH HUMIDITY (LT)

- Sensor electronics are coated for corrosion resistance
- Operates down to -4° F (-20° C)

OVERVIEW

The nES PDT 7 is a small dual technology occupancy sensor designed to be easily embedded into luminaires. This sensor provides excellent line of sight 360° PIR detection of small motion as well as overlapping Microphonics™ detection. The nES PDT 7 is ideal for small offices or classrooms with rows of pendant mount fixtures. By locating nES PDT 7 units in the ends of each row of fixtures (see diagram below), excellent coverage is provided for a standard 30 ft by 30 ft classroom. Additionally, an optional integrated photocell enables daylight harvesting control as well. Typically one or more nES PDT 7 sensors are paired with either an nEPP5 D linear relay pack(s) or nLight-enabled relay pack(s) or panel.

Typical Classroom w/ 2 Rows of Pendant Mount Lighting



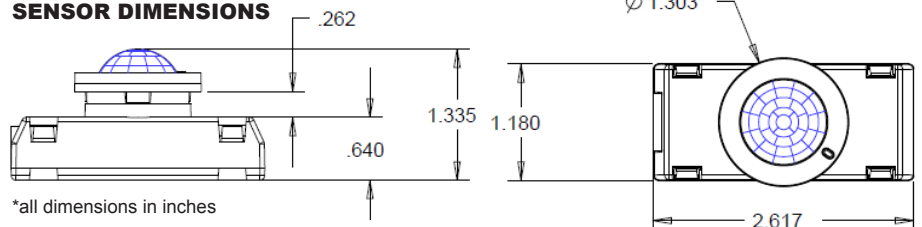
SENSOR OPERATION

Sensors with Passive Dual Technology (PDT) first see motion using Passive Infrared (PIR) detection and then engage Microphonics™ to hear sounds that indicate continued occupancy. This patented technology uses Automatic Gain Control (AGC) to dynamically self adapt a sensor to its environment by filtering out constant background noise and registering only noises typical of human activity. Once occupancy is detected, a relay located within the same light fixture or elsewhere within the sensor's zone is signaled to switch the line voltage lighting load on. An internal time delay, factory set at 10 minutes, keeps the sensor in the occupied state during brief periods of inactivity. The timer is adjustable, and is reset every time occupancy is re-detected.

nLIGHT OPERATION

This sensor is nLight-enabled, meaning it has the ability to communicate over an nLight network. When wired, using CAT-5 cabling, with other nLight-enabled sensors, power packs, or WallPods, an nLight control zone is created. Once linked to a Gateway, directly or via a Bridge, the zone becomes capable of remote status monitoring and control via SensorView software.

SENSOR DIMENSIONS



*all dimensions in inches

ORDERING INFO

nES PDT 7 [DAYLIGHTING CONTROL] [TEMP/HUMIDITY]

OPTIONS

DAYLIGHTING CONTROL

- Blank = None
- ADCX = Auto Dimming Control Photocell*

TEMP/HUMIDITY

- Blank = Standard
- LT = Low Temp

*dimming output not included

TITLE 24
 ASSEMBLED in U.S.A.
 5 YEAR WARRANTY

WIRING (DO NOT WIRE HOT)

Power to the sensor is provided by the CAT-5 connection to a linear power pack within the fixture (diagram A) or another nLight power pack/supply (diagram B) within its zone. T568B pin/pair assignment is recommended for all CAT-5 cables.

DIAGRAM A

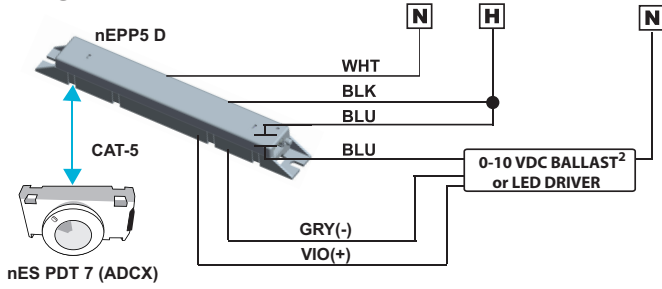
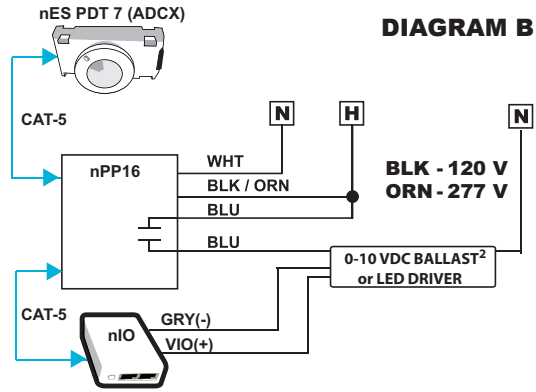


DIAGRAM B



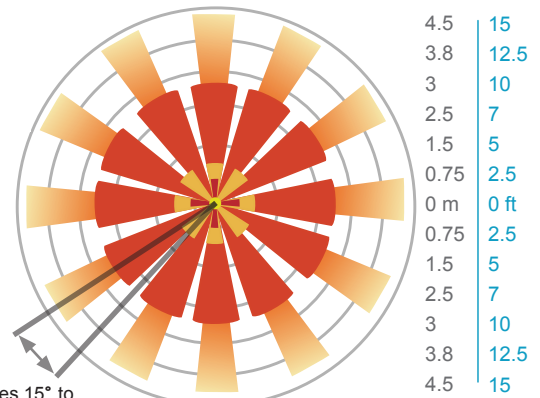
²Suggested Ballasts: ADVANCE® MARK VII®, SYLVANIA® QUICKTRONIC® POWERSENSE™, GE® ULTRAMAX™ (-V60)

COVERAGE PATTERN

MICRO 360° LENS

- At the 7.5 ft (2.29 m) hanging height of a typical pendant mount fixture the sensor provides 10 ft (3.05 m) radial detection of small motion. At a 9 ft (2.74 m) hanging height the radius is 12 ft (3.66 m) for small motion.
- Adequate for walking motion detection from mounting heights between 7.5 ft (2.29 m) and 20 ft (6.10 m).
- Initial detection will occur earlier when walking across sensor's field of view than when walking directly at sensor.
- Initial detection of walking motion into long coverage segment will occur at distances of 2x the mounting height up to 15 ft (4.57 m) and 1.75x up to 20 ft (6.10 m). Lens assembly rotates 15° to enable adjustment in order to line up long segments.

7.5 FT MOUNTING HEIGHT



Lens rotates 15° to enable adjustment

INSTALLATION

- If not pre-installed, locate sensor body so that lens throat protrudes through 1.125" hole in luminaire, facing down.
- Align lens assembly legs with holes in sensor body and snap together (max material thickness 0.25"). Foam spacer pads are provided to ensure snug fit. Assembly rotates 15° to enable coverage pattern adjustment after installation.
- To unsnap lens assembly, pry up under lip on sensor short sides.
- Interconnect unit (via RJ-45 port) with other nLight devices in lighting zone using CAT-5 cable.
- Once power is received via CAT-5 connection, all devices in zone will automatically begin functioning together according to each device's defaults.

PROGRAMMING

Refer to included instruction card for default settings and directions on programming the sensor via the push-button (located in face of ring around lens).

DIAGRAM 1. INSTALLATION EXAMPLE

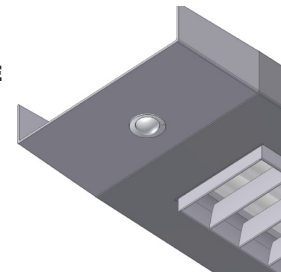
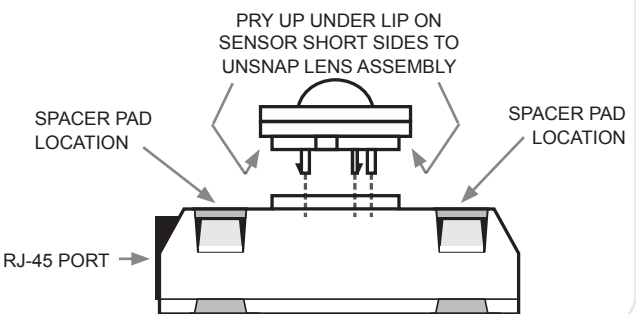


DIAGRAM 2. ASSEMBLY DETAIL



WARRANTY: Sensor Switch, Inc. warrants these products to be free of defects in manufacture and workmanship for a period of 60 months. Sensor Switch, Inc., upon prompt notice of such defect, will, at its option, provide a Returned Material Authorization number and repair or replace returned product.
LIMITATIONS AND EXCLUSIONS: This Warranty is in full lieu of all other representation and expressed and implied warranties (including the implied warranties of merchantability and fitness for use) and under no circumstances shall Sensor Switch, Inc. be liable for any incidental or consequential property damages or losses.