

PHILIPS

Sensors

ZigBee sensor

SNS400



Specification Sheet

SNS400

Luminaire-mount sensor for InterAct

The Philips SNS400 luminaire-mount sensor is the ideal solution for per-luminaire control of new light luminaires. It combines occupancy sensing, daylight harvesting and task tuning in a single, compact package for easy luminaire assembly.

SNS400 operates with the established Xitanium SR driver standard to make a simple two-wire connection between sensor and driver, thus eliminating the need for multiple components and auxiliary devices. The result is a cost effective and easy-to-design-in solution ideal for energy-savings. An intuitive app makes configuration and commissioning during and after installation fast and easy using Philips field apps.

SNS400

Features

- Occupancy sensing, daylight harvesting and task tuning in one device
- Compact size, 2-wire connection
- Operates with Philips Xitanium SR drivers and qualified wireless switches
- Preset with most common sensor parameters
- Configuration of sensor parameters– if desired – using NFC or IR via intuitive Android-based Philips field apps

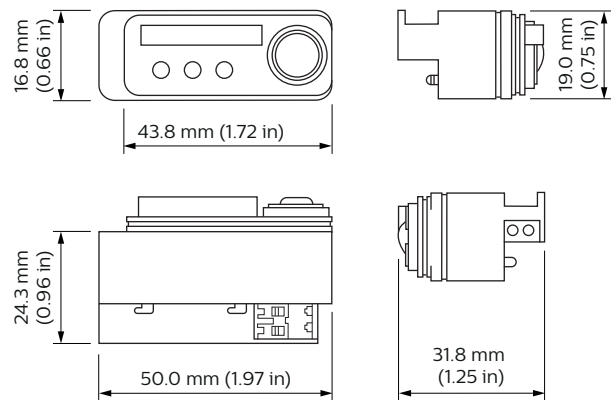
Benefits

- Combines functionality to reduce need for multiple components
- Fits into existing and new-design luminaires
- Cost-effective solution for energysavings
- Configuration and commissioning from the floor

Applications

- Conference rooms
- Individual offices
- Open offices
- Classrooms
- Storage and break areas
- Restrooms
- Lobbies
- Stairways

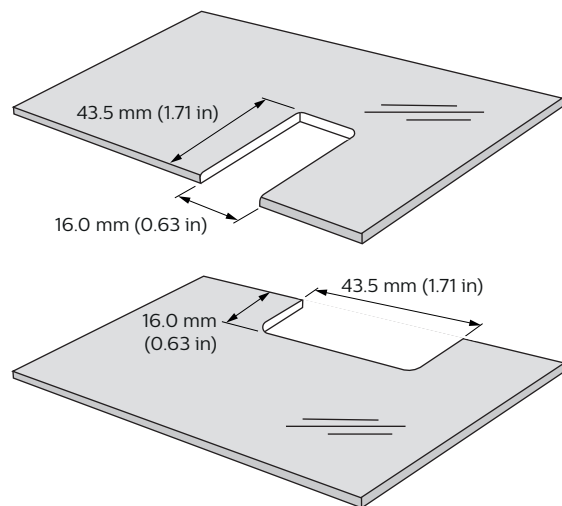
Dimensional drawing



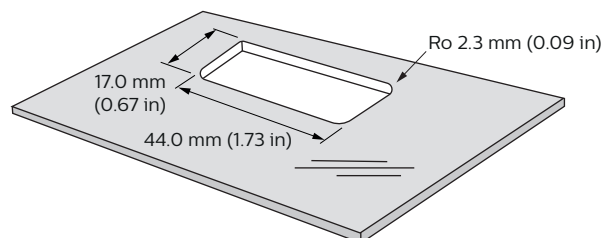
Sensor

Mounting dimensions

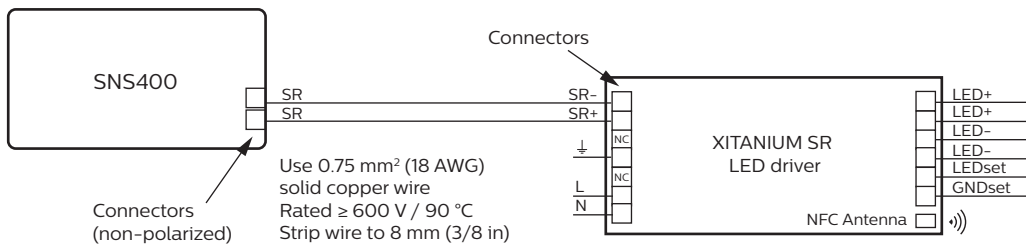
Mounting in U-shaped slot in sheet metal (max thickness 1 mm), tolerance +0.2 mm/-0.0 mm.



Mounting in cut-out in sheet metal (thickness 0.7 mm to 1.2 mm), tolerance +/-0.2 mm.



Wiring diagram



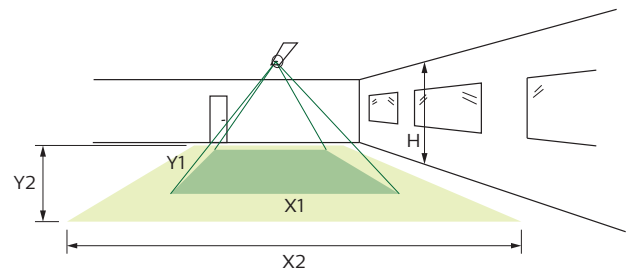
Occupancy Sensing

The detection area for the movement sensor can be roughly divided into two parts:

- Minor movement
Person moves ≤ 0.9 m/s (≤ 0.3 in/s)
- Major movement
Person moves ≥ 0.9 m/s (≥ 0.3 in/s)

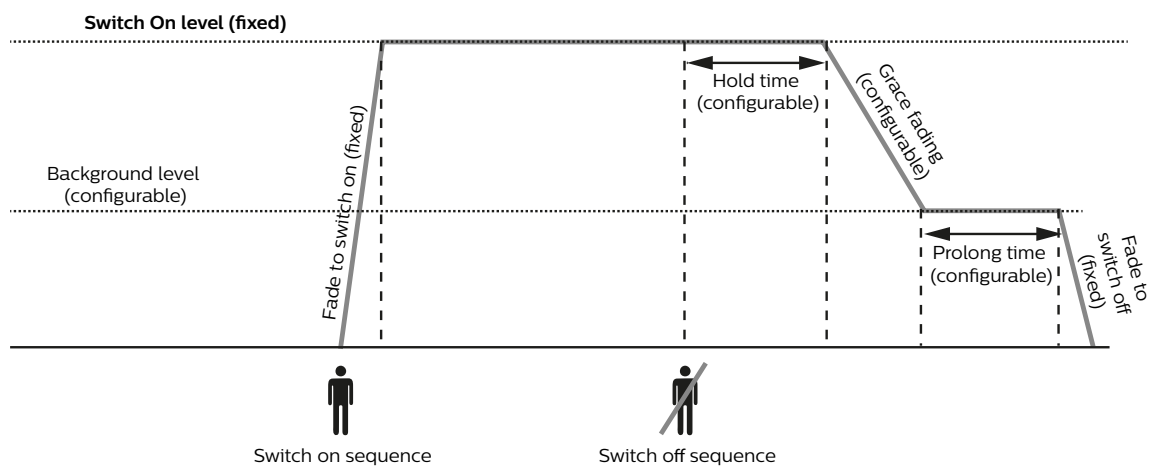


H	Y1	X1	Y2	X2
2.4 m (7.9 ft)	2.9 m (10 ft)	2.7 m (9 ft)	4.5 m (15 ft)	2.9 m (9 ft)
3 m (9.8 ft)	3.6 m (12 ft)	3.4 m (11 ft)	5.4 m (18 ft)	3.6 m (12 ft)



Note

Longer dimension of detection area (Y1, Y2) is parallel to longer dimension of SNS400.



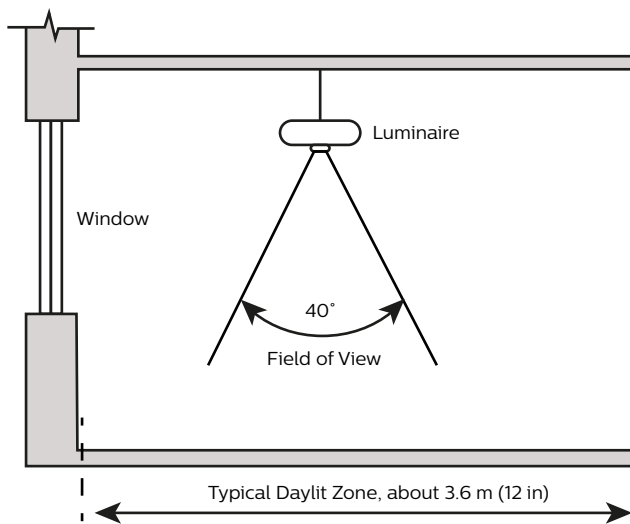
Daylight Sensor

The light sensor measures the total amount of light in a circular field of $\approx 80\%$ of the PIR detection area. The following aspects should be observed during installation:

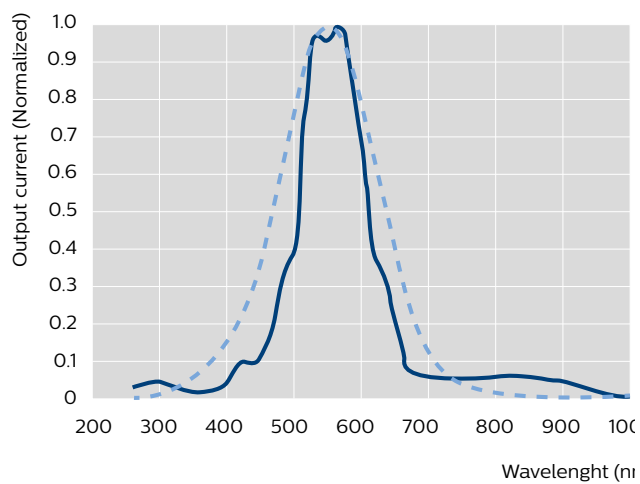
- Minimum distance from the window ≥ 0.6 m.
- Prevent light reflections from outside entering the sensor (for example sunlight reflection on a car bonnet) as this will lead to incorrect light regulation.

As a guideline the formula $0.72 \times H$ can be used to calculate the minimum distance between the window and sensor whereby H is the height from the bottom of the window to the ceiling.

Photosensor Spatial Response



Photosensor Spectral Response



Specifications

Physical information

Dimensions	50 × 19.0 × 31.5 mm (1.97 × 0.75 × 1.24 in)
Luminaire hole (l × w)	44 × 17 mm (1.73 × 0.67 in)
Net weight	17 gr
Volume required inside luminaire (l × w × h)	(50 × 19 × 24 mm) (1.97 × 0.75 × 0.94 in)
Color	White and grey
Connectors	(2) Lite-Trap connectors
Input wire cross-section (solid conductor wire)	0.25 to 0.75 mm ² (18 to 24 AWG)
Input wire cross-section (stranded wire)	0.3 to 0.5 mm ² (20 to 22 AWG)

Electrical information

Input Voltage	Powered by SR driver low-voltage interface
Current Consumption	13 mA
Nominal Power Consumption	200 mW
Standby Power	< 1 W on luminaire level, including driver standby power

Occupancy sensing

Type	Passive infrared (PIR)
Enable / disable	Default enabled
Occupancy mode	Auto-on/off, Manual-on/off, Manual-on/auto-off; Red LED indicates 'on'
Occupancy sharing	Enabled / disabled
Elsewhere occupancy Level	Background level, task level
Hold time	System configurable
Viewing angle	X = 72°, Y = 86° (See detection pattern)

Background light level	0 - 100%
Prolong time	0 minutes - infinity
Grace fading	0 - 25 s
Response time/fading to Switch On/Off	0.7 s

Daylight Sensing

Enable / disable	Default enabled
Auto-calibration	Upon power-up
Viewing angle	40° (half value sensitivity); 2% cut-off point at 75°

Task Tuning

Full light setting	0 - 100%
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Environment & Approbation

Temperature	0 °C to 55 °C (Operating) -25 °C to 85 °C (Storage)
Humidity	0 – 95% non condensing
Max case temperature (Tcase)	55 °C
Agency approbations	CE, ENEC, RTTE, EMC
Warranty	5 years warranty for released Philips system combination (sensor and compatible driver). 3 years warranty for sensor only.
Digital Interface	Xitanium SR

Other

Status indicators	Red, yellow. yellow LED on: vacancy and sensor is functional Red LED on: motion is detected
Energy reporting	Calculated from last 'power on': % On, energy consumed (Whr), system on time (hrs), avg power consumed (w-hr), lamp on time (hrs)

No. drivers per sensor	4 max
Distance switch-to-first-luminaire	Max 10 m line-of-sight
Distance luminaire-to-luminaire	Max 12 m line-of-sight
Switches per group	10 max
Field configuration	via NFC or IR, parameters set via Philips field apps



Ordering Data

Type	Order code
EasySense SNS400 / NA	9290 015 08713
EasySense SNS400 / EU	9290 015 08703

