

**PHILIPS**

Sensors

EasySense

Luminaire-Mount



## Datasheet

# EasySense SNS100 Luminaire-Mount Sensor

The Philips EasySense luminaire-mount sensor is the ideal solution for per-luminaire, stand-alone control of new light luminaires. It combines occupancy sensing, daylight harvesting and task tuning in a single, compact package for easy OEM luminaire assembly. EasySense 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 and code-compliance strategies. An intuitive app makes configuration during installation fast and easy using SimpleSet.

### Features

- Occupancy sensing, daylight harvesting and task tuning in one device
- Compact size
- Operates in conjunction with Philips Xitanium SR drivers
- Preset with most common parameters to work right out-of-the-box with no commissioning
- Configuration – if desired – using SimpleSet (NFC) via intuitive smartphone-based app

### Benefits

- Combines functionality to reduce need for multiple components
- Fits into existing and new-design luminaires
- Easy field configuration of control parameter
- Quick institutional tuning in the field to optimize light and power levels
- Compatible with Philips Xitanium SR drivers
- Cost-effective solution for energy-savings and code-compliance strategies
- 5-year limited system warranty with Philips Xitanium LED drivers<sup>1</sup>

### Applications

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

April 2016

<sup>1</sup> View limited warranty at: [http://images.philips.com/is/content/PhilipsConsumer/PDFDownloads/Global/ODL120150105\\_001-UPD-en\\_GB-152795-PHI-component\\_warranty-HR.PDF](http://images.philips.com/is/content/PhilipsConsumer/PDFDownloads/Global/ODL120150105_001-UPD-en_GB-152795-PHI-component_warranty-HR.PDF)

## Ordering data

Commercial product name	EOC	Carton Quantity
EasySense StandAlone SNS100	8718696 900567 00	50 pcs/carton

## Product Data

All specifications are typical and at 25 °C Tcase unless otherwise specified.

### Physical Information

Overall Dimensions	50 mm x 19.0 mm x 31.5 mm
Housing (Luminaire Hole)	44 mm x 17 mm (l x w)
Net Weight per Piece	17 gr
Volume required Inside Luminaire (LxWxH)	50 mm x 19 mm x 24 mm
Color	White
Connectors	(2) Lite-Trap connectors rated for 0.75 mm <sup>2</sup> solid conductor wire
Wires length to the driver	0-15 meters

### 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
Detection	Off/Auto-on; Red LED indicates "on"
Hold Time	1 - 120 minutes
Viewing Angle	X=72°, Y = 86° ( See detection pattern)
Background Light Level	Off or 5-100%
Prolong Time	0 minutes - infinity
Grace Fading	0-25 sec
Response Time/Fading to Switch On/Off	0.7 sec

### 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	5-100%
--------------------	--------

### Environment & Approbation

Operating Ambient Temperature Range	0 °C to 55 °C
Operating Humidity	0 - 95% non condensing
Storage Temperature	-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

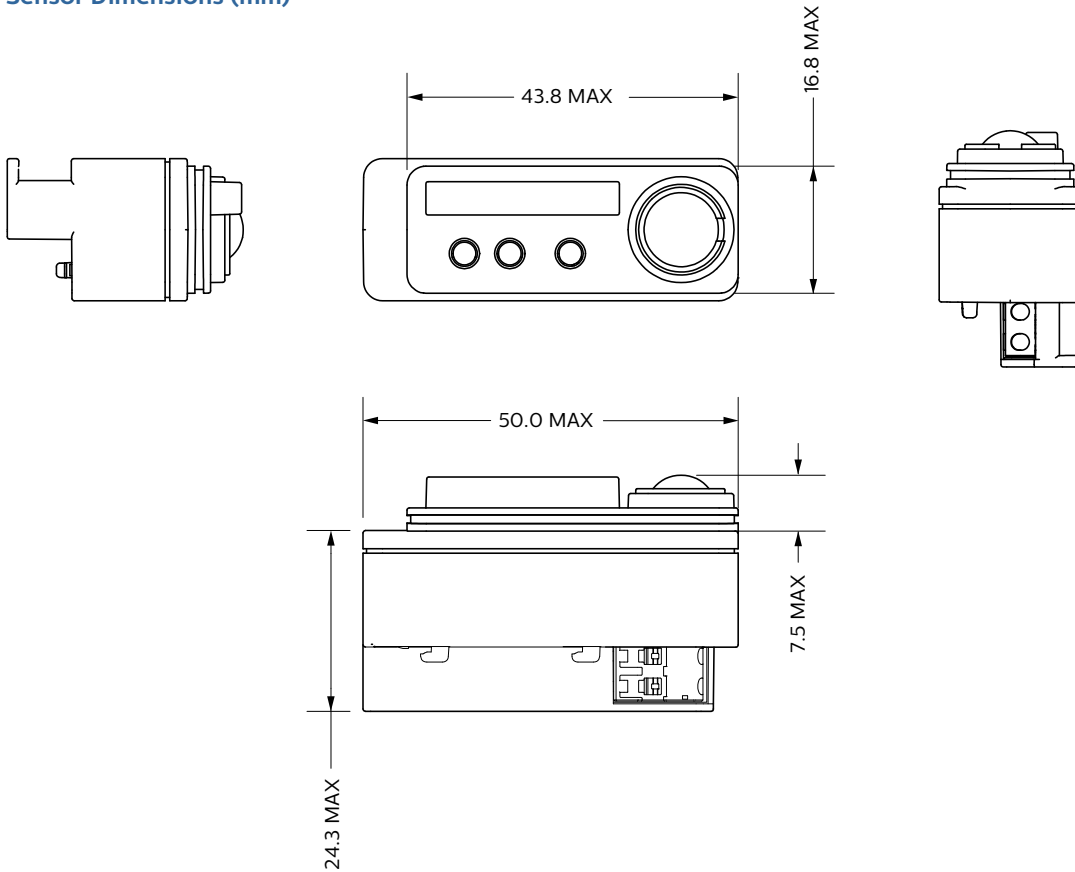
Status Indicators	Red, Yellow. Yellow LED on: Vacancy & Sensor is functional; Red LED on: Motion is detected
Energy Reporting	Calculated from last "power on": % On, Energy Consumed (Whr), System on time (hrs), Avg power consumed (w-hr), Lamp on time (hrs)
No. Drivers per Sensor	0-4 drivers per sensor
Field Configuration	via SimpleSet (NFC), parameters set via EasySense App

## Compatible LED Drivers

Logistic code 12NC	Description
929001516306	Xitanium 36W 0.3-1A 54V SR 230V

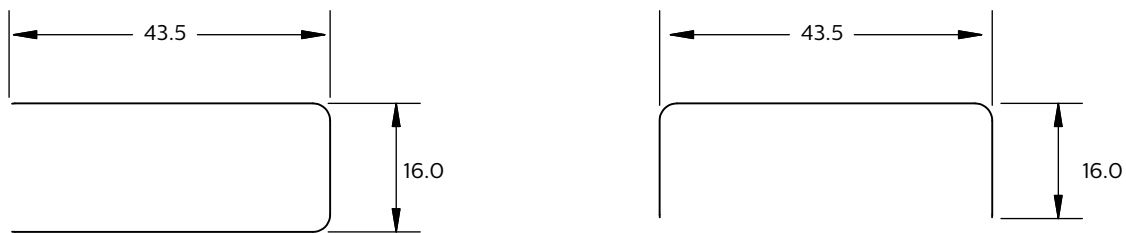
# EasySense Luminaire-Mount Sensor

## Sensor Dimensions (mm)

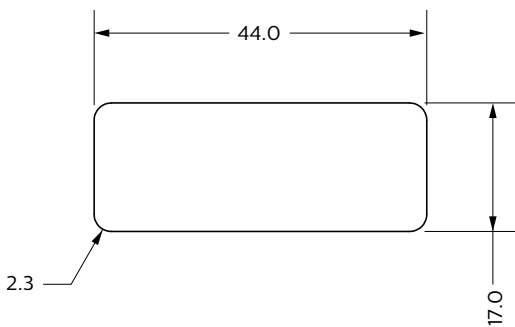


## Mounting Dimensions (mm)

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



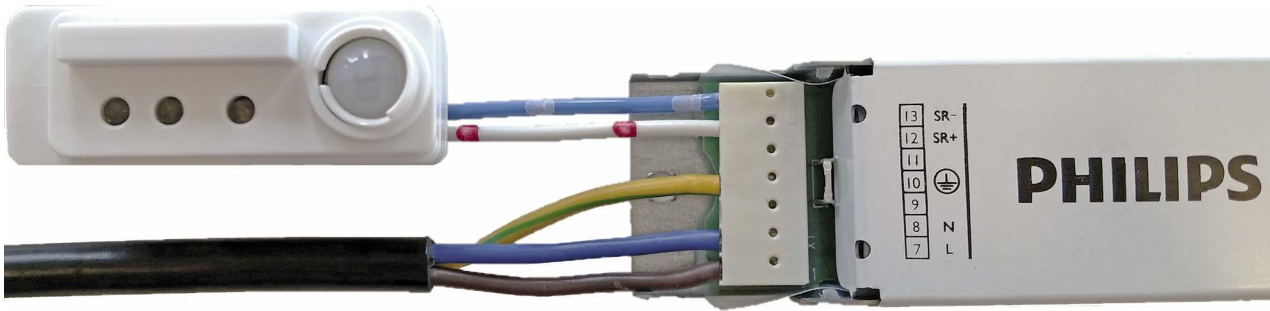
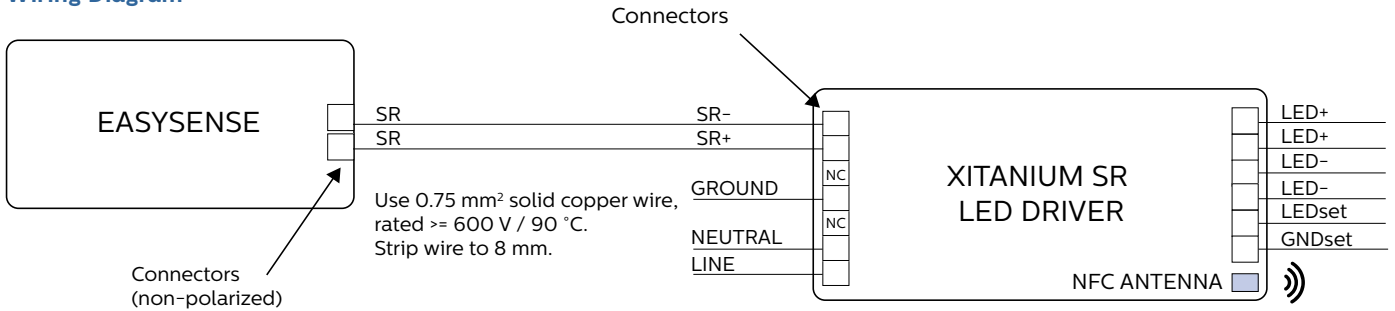
Mounting in cut-out in sheet metal (thickness 0.7 mm to 1.2 mm), tolerance +/-0.2 mm



Note: Consult factory for accessory mounting ring to secure sensor to cut-out.

## EasySense Luminaire-Mount Sensor

### Wiring Diagram



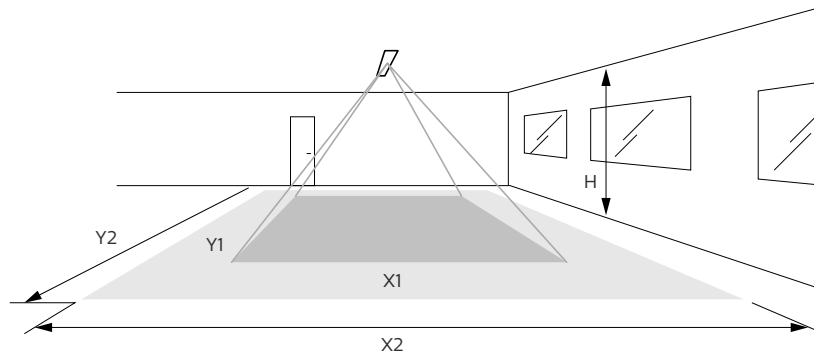
## EasySense Luminaire-Mount Sensor

### Occupancy Sensing

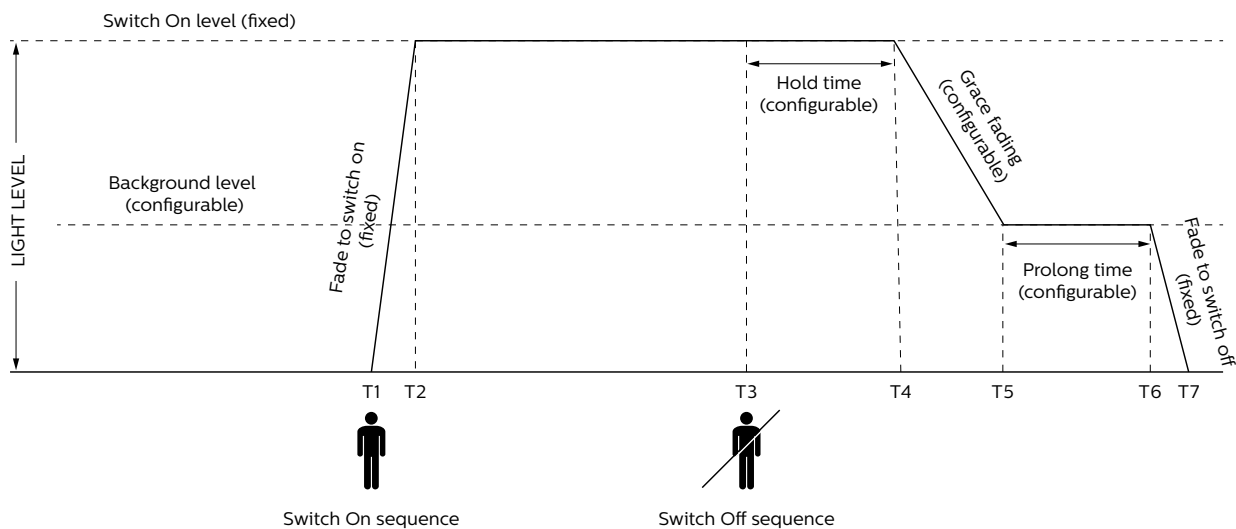
The detection area for the movement sensor can be roughly divided into two parts:

- Minor movement (person moving  $\leq$  or 0.9 m/s).
- Major movement (person moving  $\geq$  or 0.9 m/s).

Height	Minor Movement		Major Movement	
	Y1	X1	Y2	X2
h				
2.4m	2.9 m	2.7 m	4.5 m	2.9 m
3m	3.6 m	3.4 m	5.4 m	3.6 m



Note: Longer dimension of detection area (Y1, Y2) is parallel to longer dimension of EasySense.



## EasySense Luminaire-Mount Sensor

### Daylight Sensor

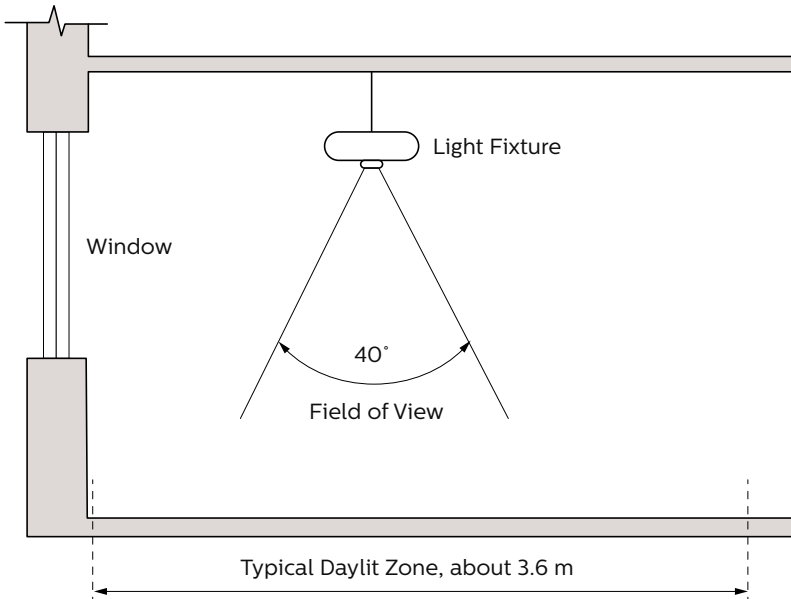
The light sensor measures the total amount of light in a circular field of  $\approx 80\%$  of the PIR detection area.

The following aspects should be observed during installation:

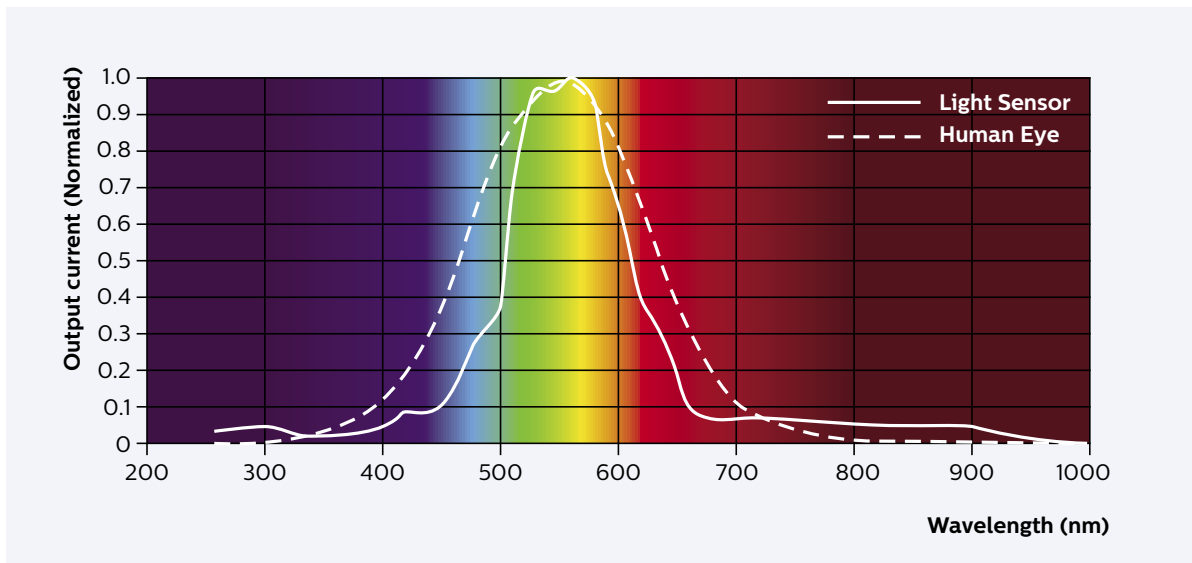
- Minimum distance from the window  $\geq 0.6$  m.
- Prevent light reflections from outside entering the sensor (for example sunlight reflection on a car bonnet) as this will lead to incorrect light regulation.

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

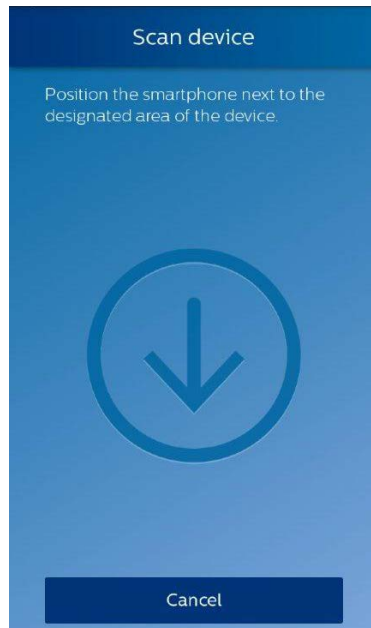
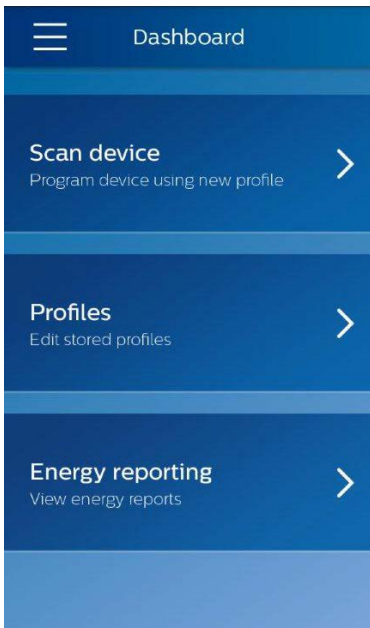


### Photosensor Spectral Response



## EasySense Luminaire-Mount Sensor

### EasySense Configuration App



### Default Factory Settings

Occupancy Detection	Auto-on, Enabled
Response time/ Fade to Switch On	0.7 seconds
Occupancy Time Out/Hold Time	15 minutes
Occupancy Grace Fading	10 seconds
Occupancy Prolong Time	15 minutes
Occupancy Background Light Level	20%
Respond time/ Fade to Switch Off	0.7 seconds
Daylight Based Control	Auto-on, Enabled
Full Light Setting	100%
LED Indicators	Enabled



© Philips Lighting Holding B.V. 2016. All rights reserved. Philips reserves the right to make changes in specifications and/or to discontinue any product at any time without notice or obligation and will not be liable for any consequences resulting from the use of this publication.

[www.philips.com/technology](http://www.philips.com/technology)

04/2016  
Data subject to change