

PHILIPS

EasySense

SNH210 IA



Specification Sheet

SNH210 IA

The EasySense Industry sensor is a part of a luminaire-based lighting control system.

SNH210 IA

Features

- Motion sensor PIR, for occupancy detection
- Light sensor daylight dependant regulation (DDR)
- Infrared receiver module for IR remote control
- Zigbee and a BLE transceiver (BLE = Bluetooth Low Energy)

Benefits

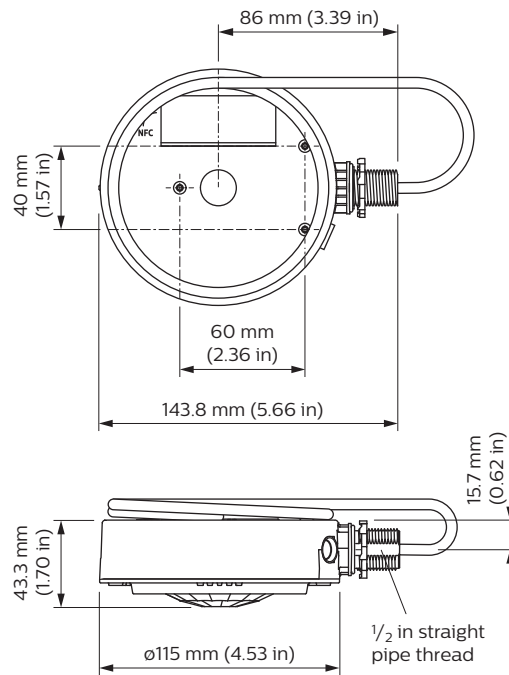
- During commissioning, with the Interact smart phone app, the light behavior and grouping of the luminaires are simply setup.
- Status indication is done by two built-in LEDs.
- The sensor is connected to and powered by the Xitanium SR driver through a two wires cable.
- The SNH210 IA sensor is attached to the outside of the luminaire housing.

Applications

The typical application areas are warehouses, under the canopy and in factories.

The sensor must be mounted outside luminaires and the mounting height can range from 4 to 16 m (13.1 to 52.5 ft). It is optimized for a ceiling height of 16 m (52.5 ft). Sensitivity patterns change according to the mounting height.

Dimensional drawings



SNH210 IA

Mounting

Installation height between 4 to 16 m (13.1 to 52.5 ft) from the floor.

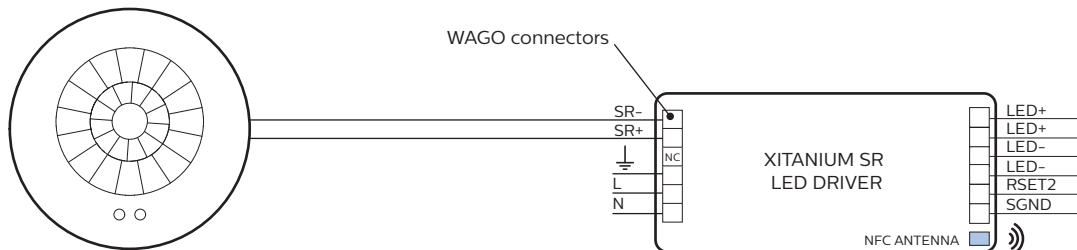
Cable

SNH210 IA	NA version
Type	Southwire 18AWG 2/C (ETL) US 3020507 SUN RES
Color	White
Strip length	8.0 ±0.5 mm (0.3 ±0.02 in)
Wire type	AWG 18
Wire isolation	Ø 5.0 mm (0.2 in)
Length	600 mm (23.6 in)

Daylight sensing

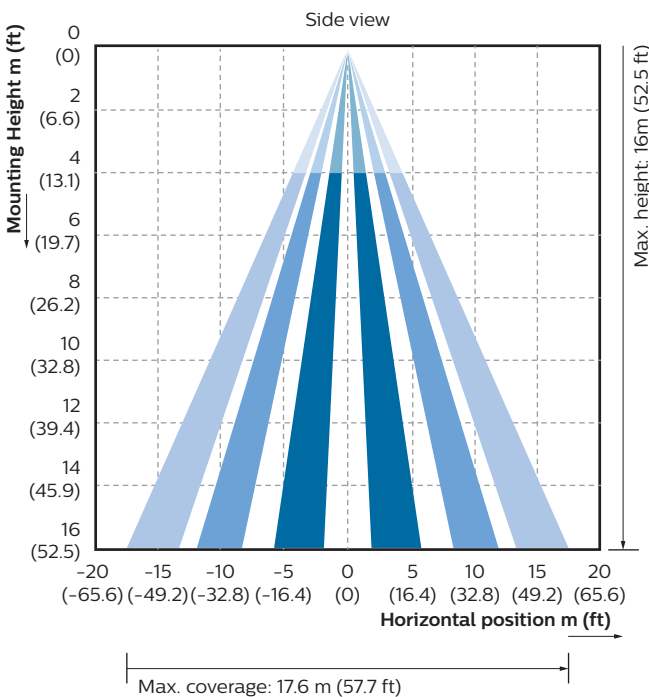
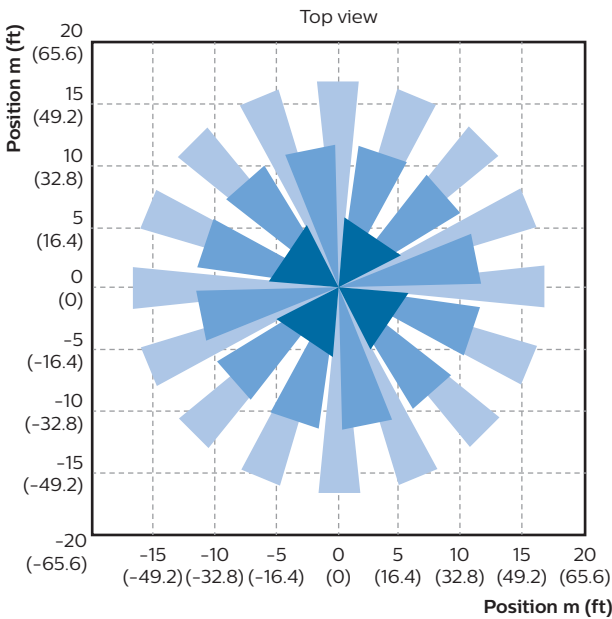
By factory default setting, it is targeted to have 100 lux on the floor as the default setpoint based on 0.3 reflection factor at a height of 12 m (39.4 ft). With autocalibration the default light level is the setpoint of the luminaire.

Wiring diagram



PIR occupancy sensing

The image below shows the side and top view of the occupancy coverage based on the industry based NEMA test. It shows that the coverage ratio of the mounting height diameter at ground level is at maximum 1 : 1.1. For example, if the mounting height is 12 m (39.4 ft), the maximum diameter coverage is 13.2 m (43.3 ft).



Notes

- The white areas are blind spots and the detection is based on the motion of the subject. An idle subject may not continue to trigger occupancy detection once the hold time expires.
- As PIR based sensing works on temperature difference between the subject and the ground level, the occupancy detection could vary due to clothing and size of the subject.

IR receiver

The working range of IR receiver is within the taper area with an angle of 20°. The Philips IRT9015 IR remote control is used to simply select luminaires during commissioning.

NFC

ISO 15693 compatible. To be used with appropriate NFC transceiver or smartphone with NFC. Operational distance up to 50 mm (1.97 in). Powered and/or non-powered.

Zigbee

This device is compatible with the Zigbee standard IEEE 802.15.4. Firmware updates can be sent over the air.

Bluetooth

This device is compatible with the Bluetooth Low Energy protocol 4.2 (5.1 compliant) standard.

LED indicators

This device has a yellow and a red LED indicator built-in underneath the PIR lens, which gives a clear visibility of the functioning of the sensor.

- Red: presence or movement detected.
- Yellow: sensor is working but no presence or movement detected.
- OFF: Either malfunctioning or the LED indication is disabled during commissioning (NFC).

Specifications

Physical data

Dimensions	143.5 x 43 mm (5.65 x 1.69 in)
Installation height	4 to 16 m (16.4 to 52.5 ft)
Net weight	0.185 kg (0.41 lb)
Color	Gray RAL7035

Environmental data

Operating temperature	-30 to 65 °C (-22 to 149 °F)
Storage temperature	-30 to 85 °C (-22 to 185 °F)
Operating humidity	20 to 85%, non-condensing
Storage humidity	10 to 95%, non-condensing
Pollution degree	3
Protection rating	IP65

Electrical data

Power supply requirements	Supply via DALI SR connection
Supply voltage	9.5 to 22.5 V
Average current at 15 Vdc input voltage	11 mA
Maximum current	45 mA
Typical power	0.16 W
Peak power	0.25 W

Daylight sensing

Minimum resolution	1 lm/m ² (0.093 lm/ft ²)
Default setting	100 lm/m ² (9.29 lm/ft ²)
Dynamic range	>1500 : 1

Bluetooth transceiver

ISM band	2.4 GHz
Output power	Max. +4 dBm
Sensitivity	-95.2 dBm (1 Mbit/s GFSK)
Frequency tolerance	±75 kHz (BLE5.1)
Spurious emissions compliance	EN 300 328/440, FCC-CFR-47 part 15, ARIB STD-66, RSS-210
Max. distance transceiver to device	15 m (49.2 ft) (Line of sight)

Zigbee transceiver

ISM band	2.4 GHz
Output power	Max. +4 dBm
Sensitivity	-102.7 dBm (250 kbit/s OQPSK 802.15.4)
Frequency tolerance	±40 ppm (±100 kHz at 2.4 GHz)
Spurious emissions compliance	EN 300 328/440, FCC-CFR-47 part 15, ARIB STD-66, RSS-210
Maximum distance transceiver to transceiver	30 m (98 ft) (indoor), 50 m (164 ft) (outdoor)

Compliance

IP rating	IP65
Approbations	UL, DLC



Ordering data

Ordering name	MOQ	Ordering number	UPC 1	UPC 3
SNH210IA EasySense [NA]	1	9290 028 59906	046677563639	50046677563634

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