



## Specification Sheet

# **SNH210 IA, SNHR210 IA** EasyAir

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

# SNH210 IA, SNHR210 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

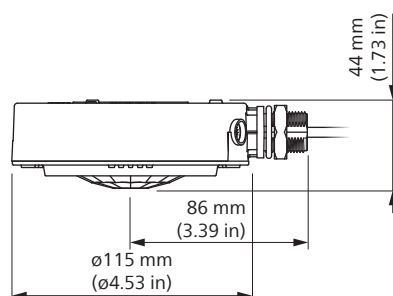
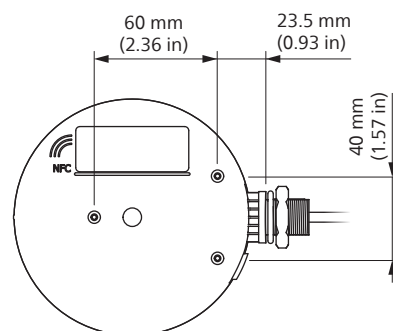
- During commissioning, with the Interact smart phone app, the light behavior and grouping of the luminaires are simply setup.
- Status indication is done by two built-in LEDs.
- The sensor is connected to and powered by the Xitanium SR driver through a two wires cable.
- The SNH(R)210 IA sensor is attached to the outside of the luminaire housing.

## Applications

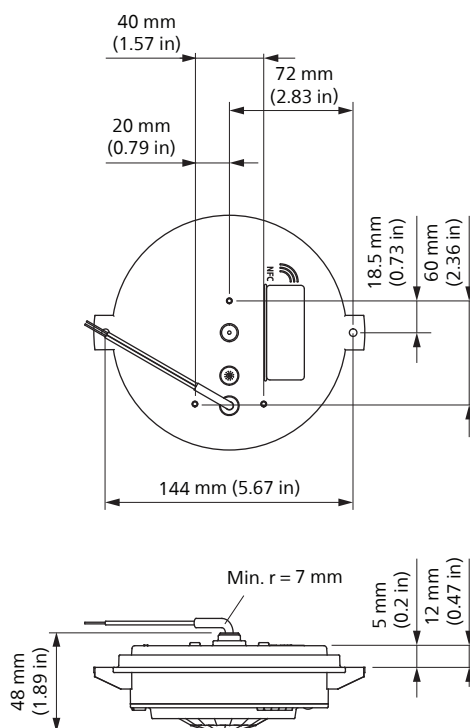
The typical application areas are warehouses, under the canopy and in factories.

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. For installation heights below 6 m (19.7 ft) it is recommended to use a higher number of sensors to achieve optimum coverage.

## Dimensional drawings



SNH210 IA



SNHR210 IA

## Mounting

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

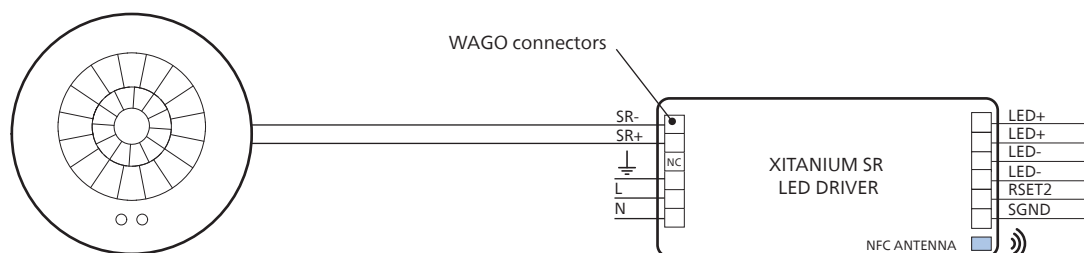
## Cable

SNH(R)210 IA	EMEA version
Type	LEONI EcoSense L03Z1Z1-U 2x0.5 BL
Color	Black
Strip length	8.0 ±0.5 mm (0.31 ±0.2 in)
Wire type	Solid 0.5 mm <sup>2</sup> (AWG 20)
Wire isolation	ø 5.0 mm (ø0.2 in)
Length	0.6 m (1.97 ft)

## Daylight sensing

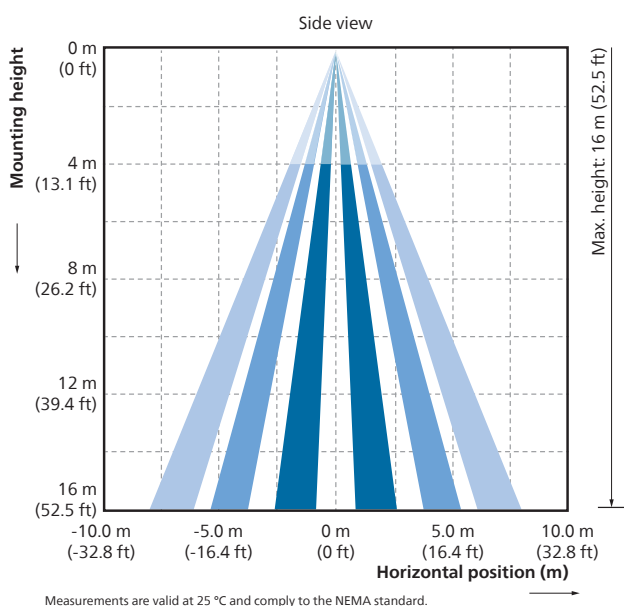
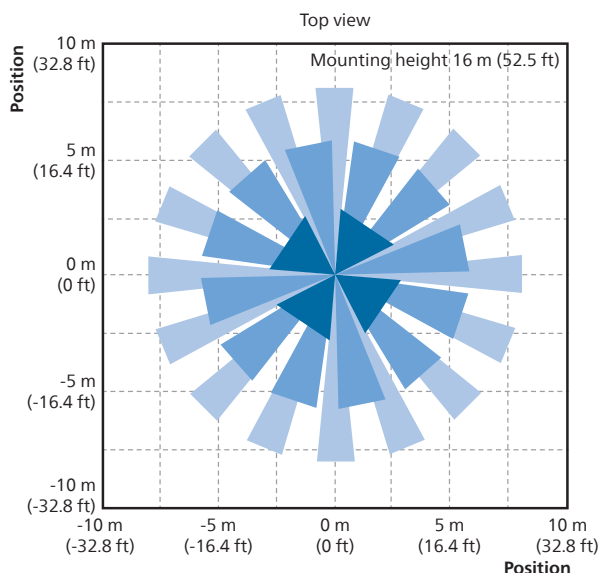
By factory default setting, it is targeted to have 100 lux on the floor as the default set point based on 0.3 reflection factor at a height of 12 m (39.4 ft). With auto calibration the default light level is the set point of the luminaire.

## 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. For example, if the mounting height is 12 m (39.4 ft), the maximum diameter coverage is also 12 m (39.4 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 the difference between subject's temperature and ambient temperature, the occupancy detection could vary due to clothing and size of the subject. The sensor detection area will decrease when the difference in subject's temperature and ambient temperature is approximately 5 °C or less.

## IR receiver

The working range of IR receiver is within the taper area with an angle of 20°. The Signify 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. 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	
SNH210 IA	143.5 x 43 mm (5.65 x 1.69 in)
SNHR210 IA	156 x 48 mm (6.14 x 1.89 in)
Installation height	4 to 16 m (16.4 to 52.5 ft)
Net weight	
SNH210 IA	0.185 kg (6.53 oz)
SNHR210 IA	0.210 kg (7.41 oz)
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 <sup>2</sup>
Default setting	100 lm/m <sup>2</sup>
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, line of sight (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 (98.4 ft) indoor 50 m (164 ft) outdoor

## Compliance

IP rating	IP65
Approbations	CE, ENEC, FCC, IC, CSA



## Ordering data

Ordering name	MOQ	Ordering number	EAN code level 1	EAN code level 3	EOC
SNH210IA EasyAir [EU]	1	9290 028 59806	8719514 302815	8719514 302839	302815 00
SNHR210IA EasyAir [EU]	1	9290 028 60006	8719514 302891	8719514 302907	302891 00

## Specific Data Notice

This Specific Data Notice applies to the sensors as specified in this product specification/data sheet (the “**Sensor**”) that is part of or works with a Professional System offered by Signify for use in the European Union and supplements and/or corrects the Generic Data Notice For Professional Systems and Services that can be found at: <https://www.signify.com/global/legal/digital-terms/datanotices/en> (the “**Generic Data Notice**”) by providing additional and/or more specific details specific to this Sensor.

Terms starting with a capital in this Specific Data Notice, will have the meaning as attributed thereto in the Generic Data Notice, unless explicitly defined otherwise in this document.

When used in a professional lighting system of Signify in combination with an Interact Wireless Gateway with either the Interact Building Manager or Interact Pro software services the Sensor is capable of generating the Data as specified below<sup>1</sup>:

- Operational Data: energy consumption, failures (of light points and driver), burning hours (read from the driver as per DALI-2 protocol)
- Sensor Data: occupancy state for the last minute as per Zigbee wireless communication protocol

The Product Data generated in this combination is communicated via the gateway to the Interact cloud where these are stored. Product Data is neither stored on the Sensor itself nor on the gateway. Product Data cannot be accessed directly from the Sensor<sup>2</sup> Product Data that is Readily Available Data can be accessed as indicated in the software specification sheet of respectively Interact Building Manager and Interact Pro.

This Specific Data Notice may be changed by Signify from time to time. The current version of this notice will apply and can be obtained at request via the point of contact as indicated in paragraph 7 of the Generic Data Notice.

1. The type and volume and format of Product Data that is actually generated depends on the product and/or software configuration and subscription to the relevant software service.
2. In typical use the connected product is commissioned in which state the on-device generated data cannot be directly accessed to safeguard security.

