

PHILIPS

EasyAir

SNH(R)210 IA



Specification Sheet

SNH210 IA, SNHR210 IA

The EasyAir Industry sensor is a 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

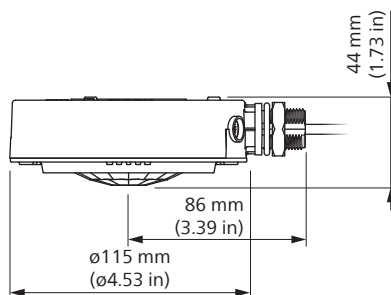
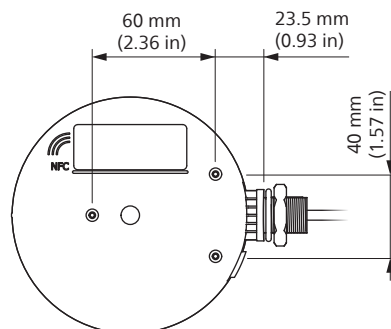
- During commissioning, with the Interact smart phone app, the light behavior and grouping of the luminaires are simply setup.
- Status indication is done by two built-in LEDs.
- The sensor is connected to and powered by the Titanium SR driver through a two wires cable.
- The SNH(R)210 IA sensor is attached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

Applications

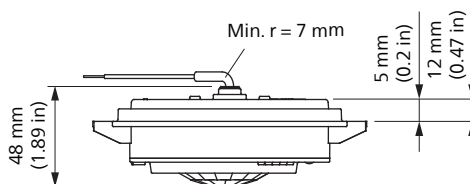
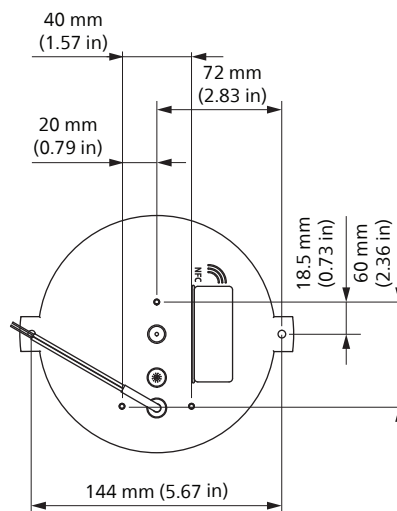
The typical application areas are warehouses, under the canopy and in factories.

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.

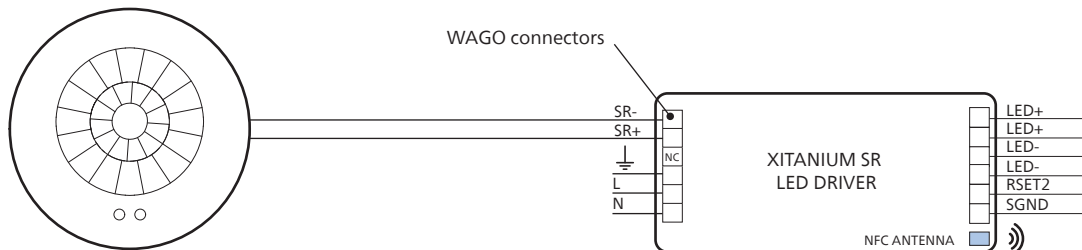
Cable

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 ² (AWG 20)
Wire isolation	ø 5.0 mm (ø0.2 in)
Length	0.6 m (1.97 ft)

Daylight sensing

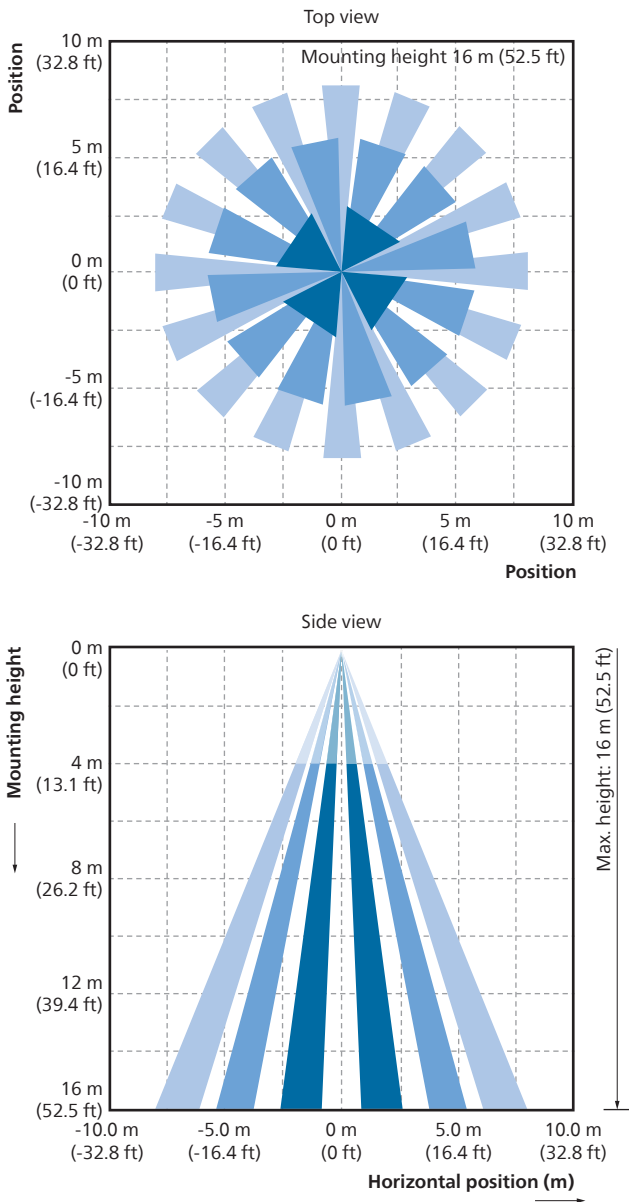
By factory default setting, it is targeted to have 100 lux on the floor as the default setpoint based on 0.3 reflection factor at a height of 12 m (39.4 ft). With auto calibration the default light level is the set point of the luminaire.

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).



Measurements are valid at 25 °C and comply to the NEMA standard.

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. 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 ²
Default setting	100 lm/m 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
Maximum 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

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