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Product data sheet: B NLC A HB LI Sensor for HubSense®

Bluetooth NLC sensor

For light harvesting and presence detection
0-10V

Product family benefits
Design freedom due to compact size
Easy to integrate in luminaire
Minimize internal wiring in combination with 0-10V LED drivers

Areas of application
Warehouse
Factories
Retails
Sports Hall

Benefits
With/without Daylight and Occupancy Sensor

Bluetooth NLC

Control of 0-10V LED drivers

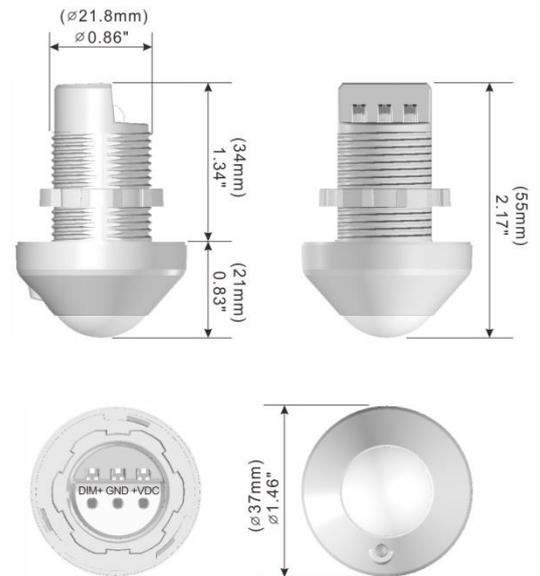Works with Inventronics Hubsense

Approval marks
CE, Bluetooth, SRRC, UL

Housing material: plastic

Product Features

- Sensor for luminaire integration based on Bluetooth NLC
- IP grade 65*
- Stand by power consumption <200mW
- 50000 h lifetime at tc max = 60°C
- Installation height up to 17m / 55 ft
- IP grade 65*
- Wide detection range up to 18m / 59 ft
- Shield accessory
- 5 years guarantee
- UL

*IP65 is reached when used in combination with sealed accessory (i.e. the mount batten adapter)
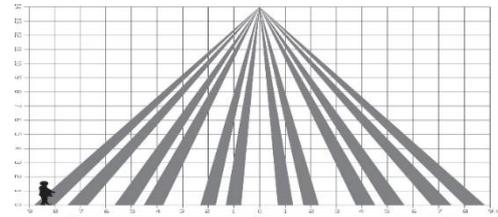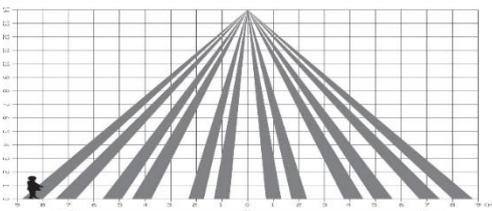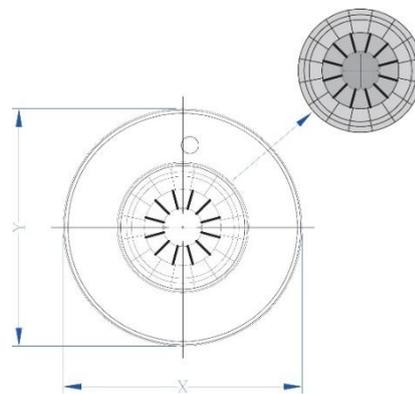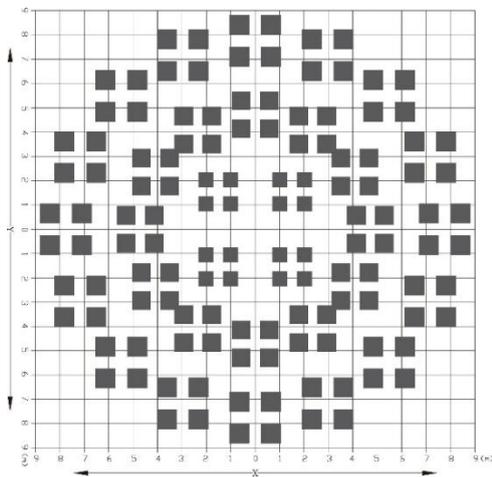
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Electrical Specifications

	Item	Value	Unit	Remarks
INPUT/ OUTPUT	Rated voltage	12 – 24	Vdc	
	Average input current	<16	mA	@12V
	Peak input current	<30	mA	
	System wattage	<200	mW	@12V
	Radio frequency	2.4	GHz	
	Max Tx Power	+8	dBm	4.884 mW
	Wireless protocol			Bluetooth NLC provided by SILVAIR
	Range	20	m	Line of sight
CAPABILITIES	Control	0.10	V	
	Number of connected drivers	<25		0-10V LED drivers source 50 mA; sink 9 mA
	Type of sensor			PIR and Light sensor
	Detection angle	+/-20°		50% lux detection
	Mounting heights	8 – 17	m	Minimum – Maximum height
	Min temperature difference between the target and the surroundings	up to 17m / up to 12m	4°C / 2°C	
	Installations			In Luminaire
	PIR detection range	18 / 59	m / ft	
	Detection angle	360	°	
	Light measurement	5-1000	lux	lux with daylight harvesting function (β-angle: ±10° +-5 degree)
	Reset			Magnet
	LEDs indicator			Blue x 1, Red x 1 (pairing, connected & etc. indications)
ENVIRONMENT	Ambient temperature range t_a	-20 …+50	°C	
	Maximum case temperature t_c	60	°C	(50,000 hrs lifetime at max. Ta = 50°C / Tc = 60°C)
	Max. case temp. in fault condition	110	°C	
	Storage temperature range	-20 …+70	°C	
	Operating humidity	0 … 90	%	
	Storage humidity	0 ... 95	%	Not condensing
	Environmental rating	Indoor		
	IP rating	IP 65		When installed on sealed device with gasket
	Expected lifetime	50'000	h	Ta=50°C or Tc=60°C
DIMENSIONS AND WEIGHT	Screw thread length	28.3 / 11.1	mm / in	
	Length	56.9 / 22.4	mm / in	
	Diameter internal	21.8 / 0.86	mm / in	
	Diameter external	37 / 1.46	mm / in	
	Protrusion	21 / 0.83	mm / ft	
	Mounting hole diameter	22.2 – 23.2 / 8.7 – 9.1	mm / in	
	Product weight	18.9 – 6.6	g / oz	
	Wire preparation length, input side	7.5 … 9.5 / 0.3 … 0.37	mm / in	
	Cable cross section, input side	0.20…0.75 / 24…18	mm² / AWG	
	Maximum allowed cable length	10 / 33	m / ft	
STANDRDS	**CE** **LVD:** EN61347-2-11 **EMC:** EN 301 489-1 EN 301 489-17 EN 50581 EN 62479 EN 300 328 **RoHS & REACH compliance** **UL**			
	SRRC			

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Detection range

Detection Area versus Hight

H	X	Y
33 ft (10m)	39 ft (12m)	39 ft (12m)
46 ft (14m)	52 ft (16m)	52 ft (16m)
56 ft (17m)	59 ft (18m)	59 ft (18m)
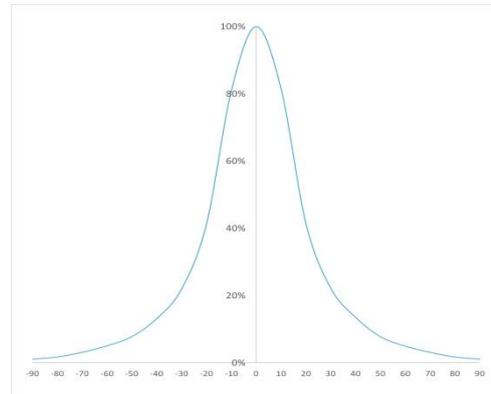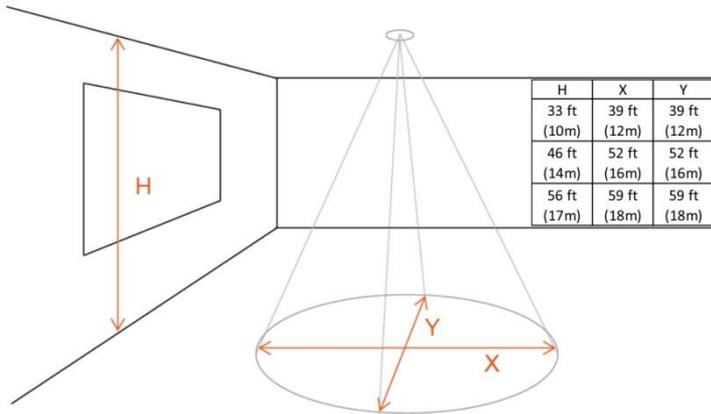
Installation Tips

Do not install the sensor directly next to a window which can cause incorrect measurement of the natural light. Keep minimum distance as per table below

Height	Distance from window
10 m / 33 ft	6 m / 20 ft
14 m / 46 ft	8,4 m / 27 ft
17 m / 56 ft	10 m /33 ft

Do not calibrate the sensor in low level of light. It can cause incorrect calibration when setting Lux value.

Light sensor accuracy may depend on the surface reflectance

Additional product information

- By integrating the device into a casing, the wireless range could be affected by metal surfaces. Therefore, the wireless range needs to be verified after integration.

-The device could be reset to factory default by magnet (cfr User Instruction)

-The status LED of the device indicates following Network status

  Blue LED Indicator:

  • Success connection: LED indicator flashes 2s at once

  • No connections: LED indicator flashes 0.3s at once

  Reset to factory settings:

  LED indicator flashes 1s at once, then quickly flashes and disappears

  Red LED Indicator:

  • Warm up: LED indicator disappears after 45s

  • When PIR is triggered, the LED indicator quickly flashes at once; continuous triggered, LED indicator flashes every 0.3s at once

-The device has passed successfully the SILVAIR Testing process.

-The device can be put into operation using the HubSense Commissioning Tool (https://platform.hubsense.eu), subject to prior acceptance of the Terms of Use and the Privacy Policy.

-Inventronics may terminate or suspend the use of the HubSense Commissioning Tool at any time and for any or no reason in its sole discretion, even if access and use is continued to be allowed to others.

-The device complies with Bluetooth mesh Standard v1.0. It can also be used in 3rd party Bluetooth mesh network, that complies with this standard and that supports the mesh models of this device, and with certain 3rd party commissioning tools, that support the mesh models of this device. In order to ensure correct interoperability a verification with the 3rd party network components and the 3rd party commissioning tool is necessary in advance. Please contact Inventronics (support@inventronicsglobal.com) to receive the actual list of supported models for this device.

- Inventronics shall have no liability for any 3rd party commissioning tool and does not make any representations, express or implied, about the availability and/or performance of such commissioning tool.

- Inventronics shall have no liability for and does not make any representations, express or implied, about the connectivity of Inventronics Bluetooth NLC products with any other products, that have passed the SILVAIR Testing process

ordering information

Product type	Ordering code
B NLC A HB LI	

Inventronics GmbH

Parkring 31-33, 85748 Garching,
Germany
Email:
support@inventronicsglobal.com