

SENSOTEC Sensor NET Ingy

110097569 / 110098725
110097568 / 110098724
110097570 / 110098727

SENSOTEC Sensor PIR NET INGY MA / INGY SL
SENSOTEC Sensor HF2 NET INGY MA / INGY SL
SENSOTEC Extension NET INGY MA / INGY SL

110097562 / 110098717
110097563 / 110098718
110097564 / 110098719

SENSOTEC Sensor HB PIR 3360 NET Intra INGY MA / INGY SL
SENSOTEC Sensor HB PIR 3360 NET Wire INGY MA / INGY SL
SENSOTEC Sensor HB PIR 3360 NET Zhaga INGY MA / INGY SL

110097565 / 110098720
110097566 / 110098722
110097567 / 110098723

SENSOTEC Sensor HB PIR 345 NET Intra INGY MA / INGY SL
SENSOTEC Sensor HB PIR 345 NET Wire INGY MA / INGY SL
SENSOTEC Sensor HB PIR 345 NET Zhaga INGY MA / INGY SL

INGY

PIR NET



The unobtrusive PIR presence detector with a detection area of 4x4m (movement 6x6m) is a compact and reliable recessed luminaire sensor for applications up to a maximum height of 5m.

HF2 NET



The HF sensor module has a detection range of up to 8m and a max. height of 3.5m. The presence detection is carried out through glass and non-metallic materials and can therefore be used inside luminaires.

Extension NET



The extension is used to expand the Bluetooth Mesh network and is intended for Dali luminaires without sensors.

HB PIR 3360 NET



A reliable motion detector with a long range, ideal for high ceilings in industrial buildings or commercial properties. For installation heights of up to 14m and a maximum detection area with a diameter of 36m, this high-precision PIR sensor enables monitoring of up to 1000 square metres.

HB PIR 345 NET



The Highbay motion detector reliably monitors a rectangular detection area up to 30x4m and a mounting height of 14m. Ideal for detection from great heights in warehouses, high-bay warehouses, machine shops, check-in and waiting halls.

Connection variants

Intra



Wire



Zhaga



SENSOTEC NET product family

Easy to install, ready for networking via Wirepas Mesh - The innovative NET sensors network wirelessly via a Wirepas Mesh network, can be configured via app and control LED drivers via the DALI bus. Simple, flexible, quick to install.

The NET product family includes the PIR, HF2, Extension, HB PIR 3360 and HB PIR 345 NET sensors.

Advantages

- Sensor with integrated DALI-2 application controller
- Direct connection to a DALI interface
- Straightforward wiring, powered via the DALI bus
- Mesh network in line with Wirepas specification for interconnecting and integrating sensors and lights
- Parameterization and configuration via INGY app
- Wireless firmware update of the entire network
- Constant-lighting control
- Scenes, neighbouring and labels for quick deployment and comfort for the user
- Any selectable main and basic light level
- User-defined lighting groups with configurable behavior

Further information on the individual sensors

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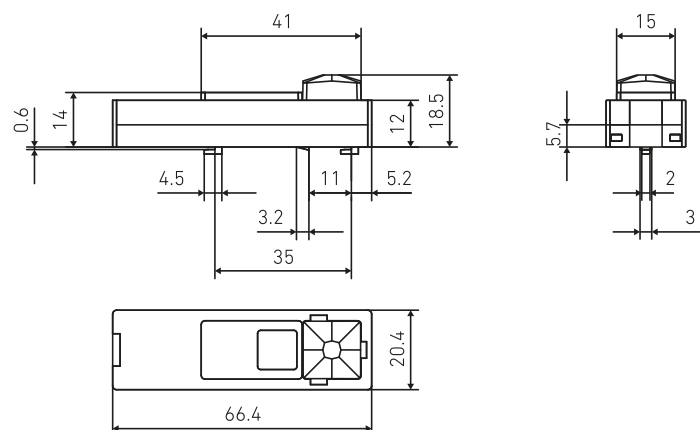
PIR NET, HF2 NET, Extension NET

Sensor technical specifications

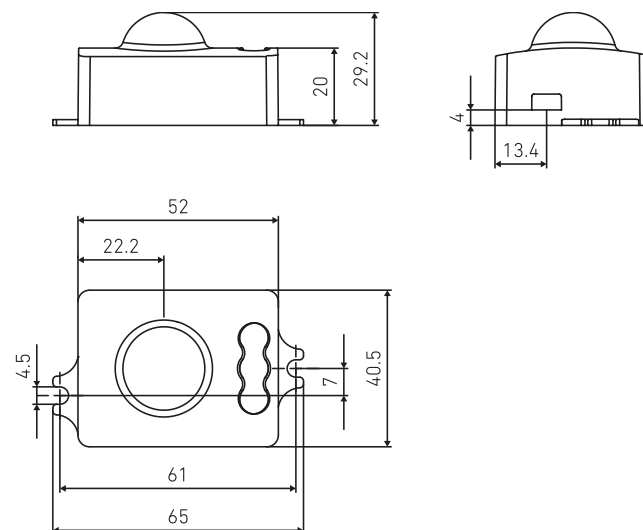
	PIR NET MA	PIR NET SL	HF2 NET MA	HF2 NET SL	Extension NET MA	Extension NET SL
Article number	110097569	110098725	110097568	110098724	110097570	110098727
Bluetooth Device Name	STE PIR NET		STE HF2 NET		STE EXT NET	
Type	9018		9017		9020	
Dimensions	66.4 × 20.4 × 18.5mm Fixing spacing 35mm 3D data available online		52 × 40.5 × 29.2mm Hole spacing 61mm 3D data available online		47 × 29 × 20mm Hole spacing 55mm 3D data available online	
Features	Motion detector Light sensor Feedback indicator Wirepas Mesh		Motion detector Light sensor Feedback indicator Wirepas Mesh		- - Feedback indicator Wirepas Mesh	
Sensor technology	Passive infrared technology		High-frequency technology		-	
Transmitter power	-		1 - 2mW		-	
Transmission frequency	-		5.8GHz		-	
Light measurement range	4 - 1000lx		4 - 1000lx		-	
Angle of coverage	-		360° with 160° angle of aperture		-	
Mounting height	2.0 - 5.0m		2.5 - 3.5m		-	
Optimum mounting height	2.8m		2.8m		-	
Reach, radial	4 x 4m (16m ²)		Ø 8m (50m ²)		-	
Reach, tangential	6 x 6m (36m ²)		Ø 8m (50m ²)		-	
Connection	0.34 - 0.75mm ²		0.34 - 0.75mm ²		0.34 - 0.75mm ²	
Supply voltage / current consumption Dali	12 - 22.5VDC / max. 46mA		12 - 22.5VDC / max. 46mA		12 - 22.5VDC / max. 46mA	
IP rating:	IP20		IP20		IP20	
Temperature range	-25 to +55°C (tc +55°C)		-20 to +60°C (tc +60°C)		-25 to +60°C (tc +60°C)	
Bluetooth Range	25m		15m		35m	
Interfaces	Dali, INGY		Dali, INGY		Dali, INGY	
Approval marks / Conformity	CE		CE		CE	
Standards	EN 61347-1 EN 61347-2-11 EN 55015 EN 61547 EN 301 489-1		EN 61347-1 EN 61347-2-11 EN 55015 EN 61547 EN 301 489-1 EN 300 440		EN 61347-1 EN 61347-2-11 EN 55015 EN 61547 EN 301 489-1	

Dimensional drawings

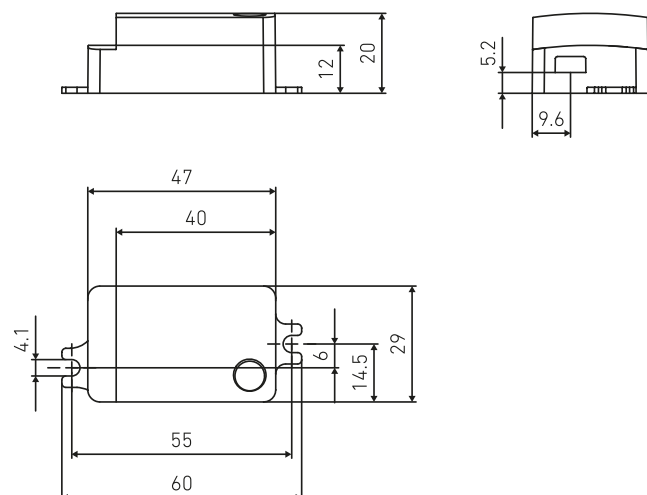
PIR NET



HF2 NET

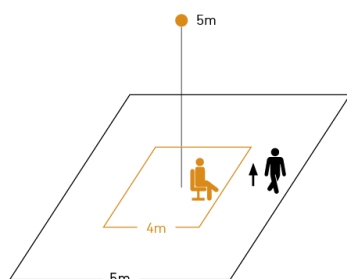


EXTENSION NET



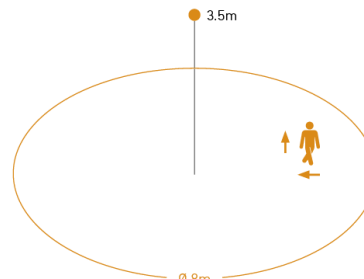
Sensor detection zones

PIR NET



Possible mounting height 2m - 5m
Orange: presence
Black: tangential

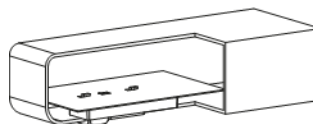
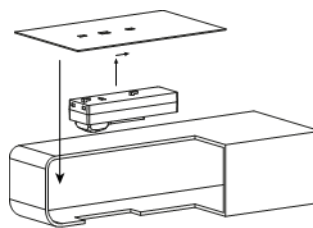
HF2 NET



Possible mounting height 2.5m - 3.5m
Orange: radial and tangential

Installation advice PIR NET

- Provide an aperture 15mm wide x 41mm long.
- Suitable for material thicknesses from 0.5 - 2mm.
- The sensor must have an unobstructed line of vision to the detection area.



Installation advice HF2 NET

- The sensor is intended to be used indoors only.
- Metallic Materials may influence the performance of the Bluetooth functionality.
- Design-in support from STEINEL specialists.
- It is highly recommended not to place the sensor in the immediate vicinity of radio transmitters and moving objects (i.e. WLAN routers).

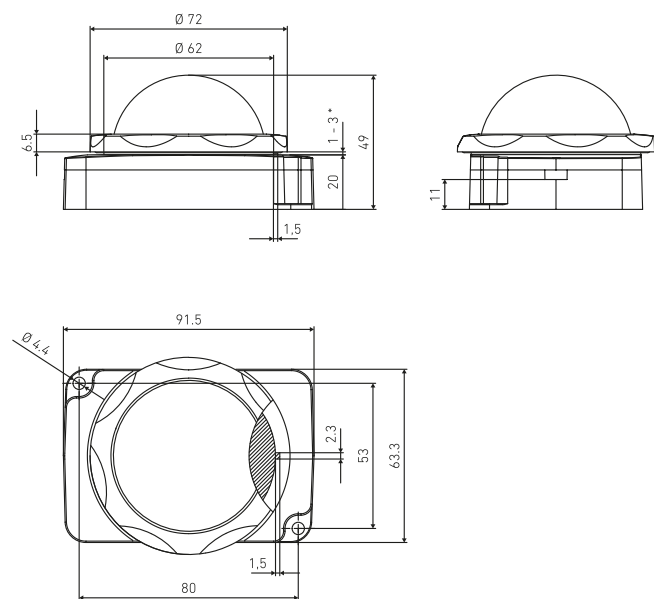
HB PIR 3360 NET Intra, Wire, Zhaga

Sensor technical specifications

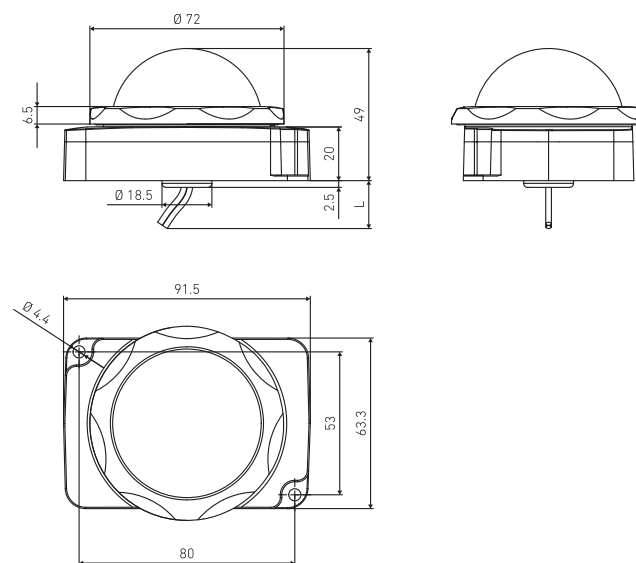
	HB PIR 3360 NET Intra MA	HB PIR 3360 NET Intra SL	HB PIR 3360 NET Wire MA	HB PIR 3360 NET Wire SL	HB PIR 3360 NET Zhaga MA	HB PIR 3360 NET Zhaga SL
Article number	110097562	110098717	110097563	110098718	110097564	110098719
Bluetooth Device Name	STE HB PIR 3360 NET I		STE HB PIR 3360 NET W		STE HB PIR 3360 NET Z	
Type	9016		9022		9021	
Dimensions	91.5 × 63.3 × 49mm 3D data available online		91.5 × 63.3 × 49mm 3D data available online		91.5 × 63.3 × 57mm 3D data available online	
Features	Motion detector Light sensor Feedback indicator Wirepas Mesh		Motion detector Light sensor Feedback indicator Wirepas Mesh		Motion detector Light sensor Feedback indicator Wirepas Mesh	
Sensor technology	Passive infrared technology		Passive infrared technology		Passive infrared technology	
Light measurement range	4 - 1000lx		4 - 1000lx		4 - 1000lx	
Mounting height	2.8 - 14.0m		2.8 - 14.0m		2.8 - 14.0m	
Reach, radial	Ø 14m (154m²)		Ø 14m (154m²)		Ø 14m (154m²)	
Reach, tangential	Ø 36m (1018m²)		Ø 36m (1018m²)		Ø 36m (1018m²)	
Connection	0.34 - 0.75mm²		Connection strands (0.5mm², L=250mm, white)		Zhaga Book 18	
Supply voltage / current consumption Dali	12 - 22.5VDC / max. 46mA		12 - 22.5VDC / max. 46mA		12 - 22.5VDC / max. 46mA	
IP rating:	IP20 / IP65* * sealed lens		IP65		IP65	
Temperatur range	-20 to +50°C (tc +50°C)		-20 to +50°C (tc +50°C)		-20 to +50°C (tc +50°C)	
Bluetooth Range	35m		35m		35m	
Interfaces	Dali, INGY		Dali, INGY		Dali, INGY	
Approval marks / Conformity	CE		CE		CE	
Standards	EN 61347-1 EN 61347-2-11 EN 55015 EN 61547 EN 301 489-1		EN 61347-1 EN 61347-2-11 EN 55015 EN 61547 EN 301 489-1		EN 61347-1 EN 61347-2-11 EN 55015 EN 61547 EN 301 489-1	

Dimensional drawings

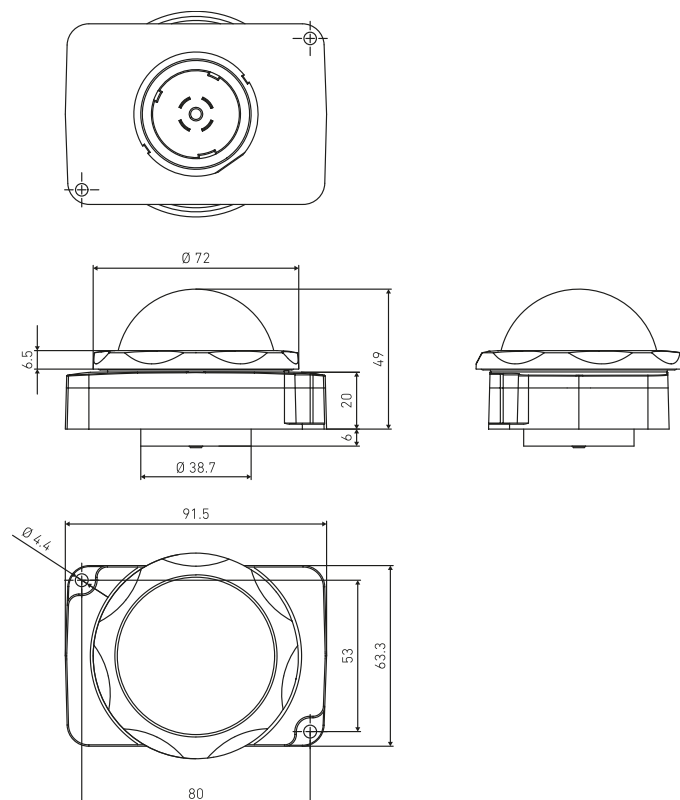
HB PIR 3360 NET Intra



HB PIR 3360 NET Wire

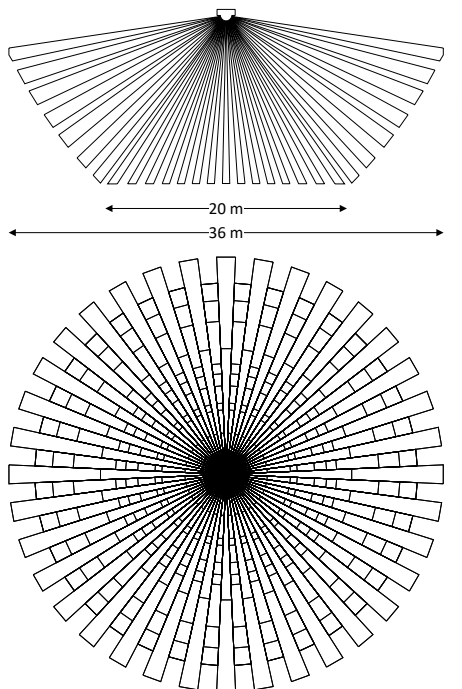
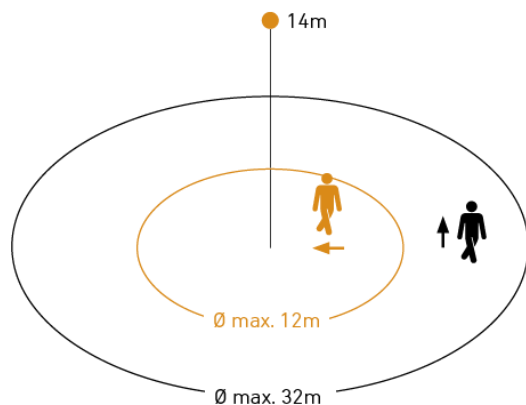


HB PIR 3360 NET Zhaga



Sensor detection zones

HB PIR 3360 NET

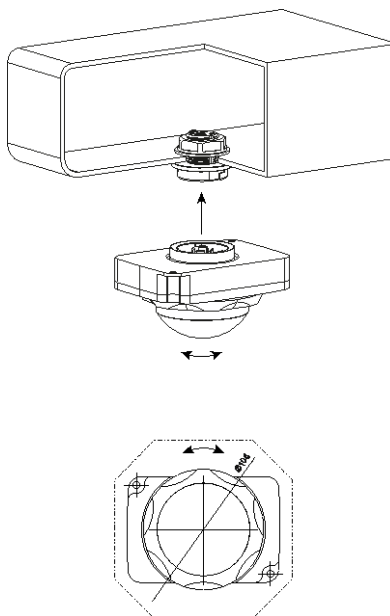
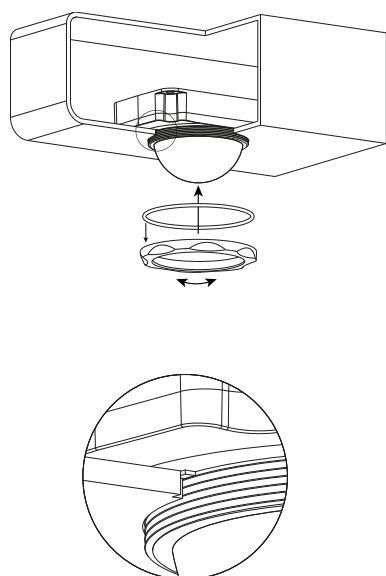


Possible mounting height: 2.8m - 14m

Orange: radial / Black: tangential

Mounting height	Detection Area (tangential)
14m	Ø 20m
9m	Ø 28m
6m	Ø 32m
2.8m	Ø 36m

Installation advice HB PIR 3360 NET



- Suitable for material thicknesses of 1 - 3mm.
- Hole diameter for lens 62,5 to 63mm.
- Alignment is done by mechanical positioning (see dimensional drawings).

- Clearance of Ø 106mm required for screwing the HB PIR 3360 NET Zhaga onto the Zhaga base.

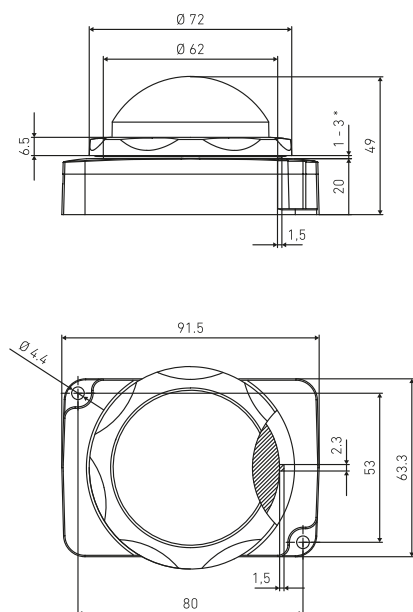
HB PIR 345 NET Intra, Wire, Zhaga

Sensor technical specifications

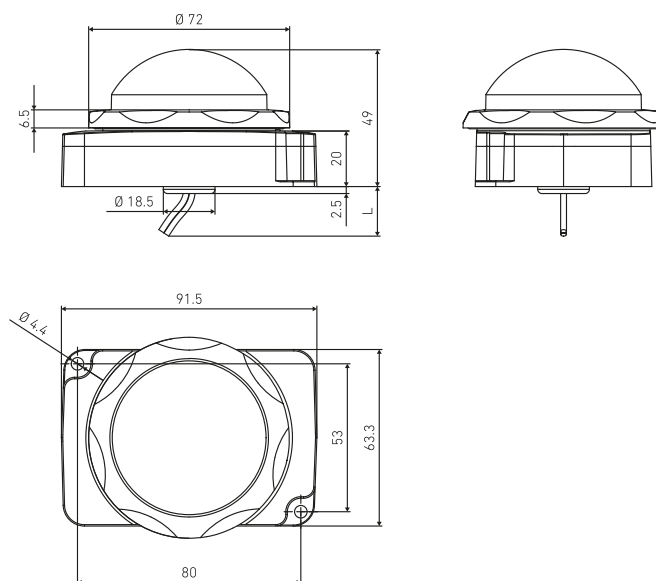
	HB PIR 345 NET Intra MA	HB PIR 345 NET Intra SL	HB PIR 345 NET Wire MA	HB PIR 345 NET Wire SL	HB PIR 345 NET Zhaga MA	HB PIR 345 NET Zhaga SL
Article number	110097565	110098720	110097566	110098722	110097567	110098723
Bluetooth Device Name	STE HB PIR 345 NET I		STE HB PIR 345 NET W		STE HB PIR 345 NET Z	
Type	9015		9024		9023	
Dimensions	91.5 × 63.3 × 49mm 3D data available online		91.5 × 63.3 × 49mm 3D data available online		91.5 × 63.3 × 57mm 3D data available online	
Features	Motion detector Light sensor Feedback indicator Wirepas Mesh		Motion detector Light sensor Feedback indicator Wirepas Mesh		Motion detector Light sensor Feedback indicator Wirepas Mesh	
Sensor technology	Passive infrared technology		Passive infrared technology		Passive infrared technology	
Light measurement range	4 - 1000lx		4 - 1000lx		4 - 1000lx	
Mounting height	4.0 - 14.0m		4.0 - 14.0m		4.0 - 14.0m	
Reach, radial presence threshold 100	30 x 4m (120m ²)		30 x 4m (120m ²)		30 x 4m (120m ²)	
Reach, radial presence threshold 200	20 x 4m (80 m ²)		20 x 4m (80 m ²)		20 x 4m (80 m ²)	
Reach, tangential presence threshold 100	30 x 4m (120m ²)		30 x 4m (120m ²)		30 x 4m (120m ²)	
Reach, tangential presence threshold 200	20 x 4m (80 m ²)		20 x 4m (80 m ²)		20 x 4m (80 m ²)	
Connection	0.34 - 0.75mm ²		Connection strands (0.5mm ² , L=250mm, white)		Zhaga Book 18	
Supply voltage / current consumption Dali	12 - 22.5VDC / max. 46mA		12 - 22.5VDC / max. 46mA		12 - 22.5VDC / max. 46mA	
IP rating:	IP20 / IP65* * sealed lens		IP65		IP65	
Temperature range	-20 to +50°C (tc +50°C)		-20 to +50°C (tc +50°C)		-20 to +50°C (tc +50°C)	
Bluetooth Range	35m		35m		35m	
Interfaces	Dali, INGY		Dali, INGY		Dali, INGY	
Approval marks / Conformity	CE		CE		CE	
Standards	EN 61347-1 EN 61347-2-11 EN 55015 EN 61547 EN 301 489-1		EN 61347-1 EN 61347-2-11 EN 55015 EN 61547 EN 301 489-1		EN 61347-1 EN 61347-2-11 EN 55015 EN 61547 EN 301 489-1	

Dimensional drawings

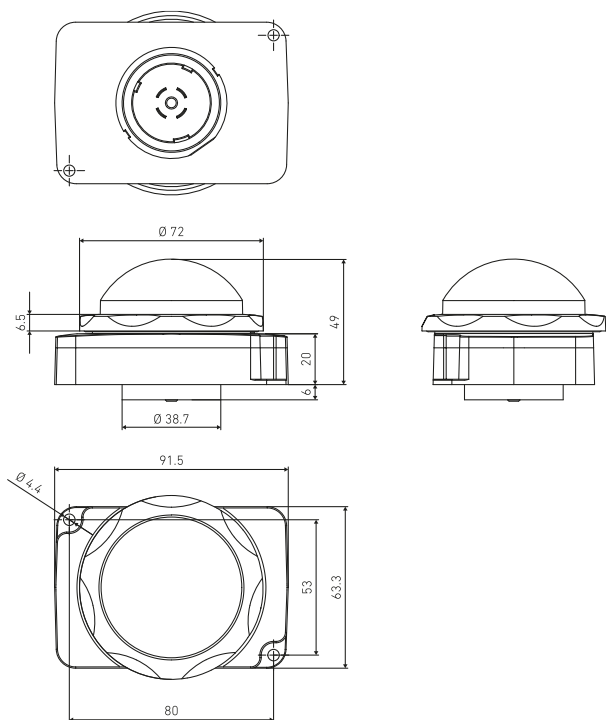
HB PIR 345 NET INTRA



HB PIR 345 NET WIRE

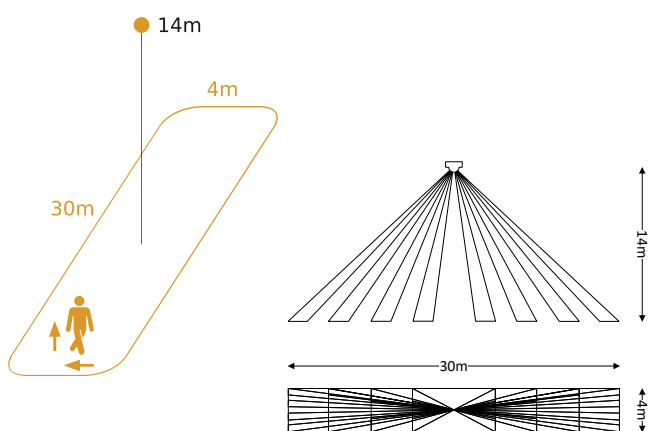


HB PIR 345 NET Zhaga

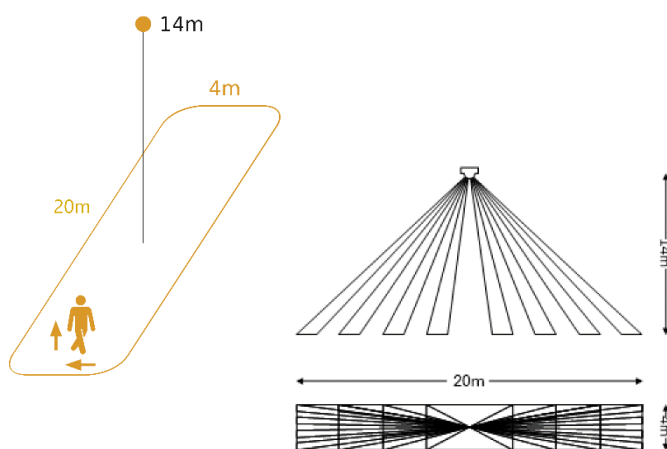


Sensor detection zones

HB PIR 345 NET – presence threshold 100



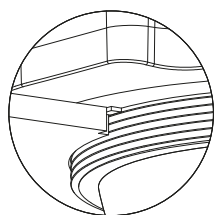
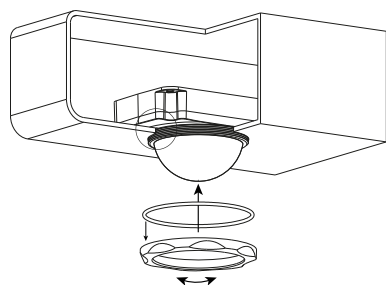
HB PIR 345 NET – presence threshold 200



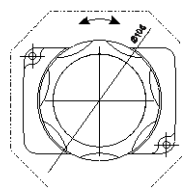
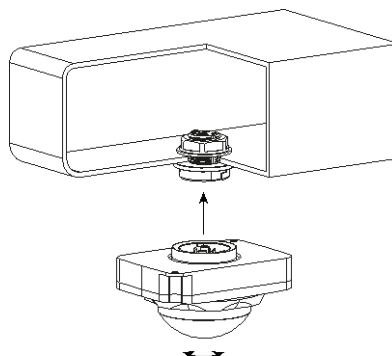
Possible mounting height: 4 - 14m
Orange: radial and tangential

Mounting height	Detection Area	
	Presence threshold 100	Presence threshold 200
14m	30m x 4m	20m x 4m
10m	25m x 4m	14m x 4m
8m	20m x 4m	12m x 4m
6m	15m x 4m	10m x 4m
4m	10m x 4m	7m x 4m

Installation advice HB PIR 345 NET



- Suitable for material thicknesses of 1 - 3mm.
- Hole diameter for lens 62,5 to 63mm.
- Alignment is done by mechanical positioning (see dimensional drawings).

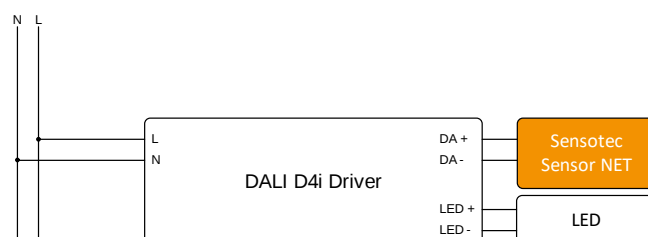
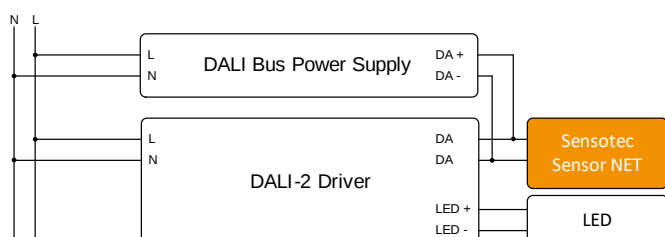


- Clearance of Ø 106mm required for screwing the HB PIR 345 NET Zhaga onto the Zhaga base.

General information

Circuit diagram

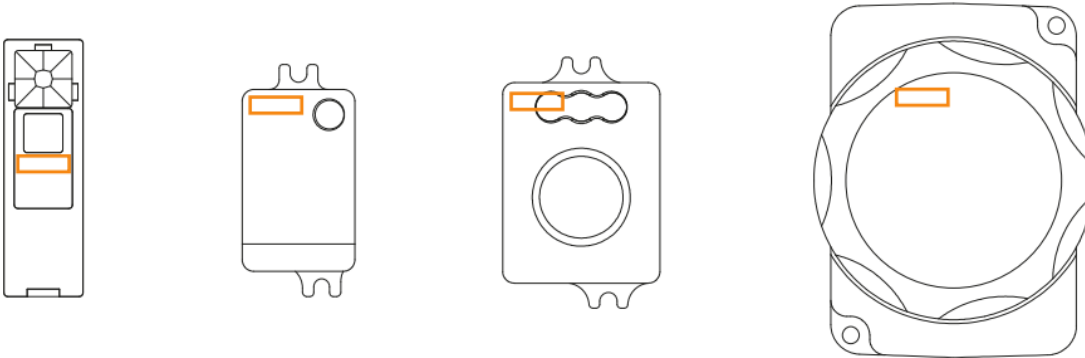
A wiring example with DALI control gear is shown below. If no additional DALI Bus Power Supply is used, the DALI-2 control gear must support at least Part 250 (Integrated bus power supply) and, by way of option, Part 252 (Energy reporting) and Part 253 (Diagnostics & maintenance).



General installation advantages

- Easily clips onto the enclosure (PIR NET)
- Easy to install by means of Zhaga connector system (Zhaga Book 18)
- Easily screws into enclosure
- Connection via a 2-core terminal (except HB Zhaga und Wire)
- The sensor is supplied with power via the two-core DALI bus line
- No plug polarity to observe

Bluetooth antenna locations



Safety precautions

- Electrical devices must only be assembled and installed by qualified electricians.
- Risk of electric shock. Disconnect before attempting work on the unit or load. Take into account all circuit breakers supplying dangerous voltages to the unit or load.
- Risk of electric shock. Before installing the sensor, check the enclosure to make sure it is not damaged. Never open the enclosure.
- The sensor is not suitable for use in burglar alarm systems or other alarm equipment.

Operation and configuration



Ingy Commissioning (Apple iOS)

Link: <https://apple.co/45PG21z> 



Ingy Smart Lighting (Google Android)

Link: <https://bit.ly/3LdMGVQ> 

Additional product information

- The device can be reset to factory settings by power cycling 5 times: The device should be switched off for at least 5s and switched on for a maximum of 10s. After a successful reset, the feedback LED flashes fastly.
- The feedback LED indicates the following:
 - Fast blinking: Not commissioned.
 - Slow blinking: Connected to a network.
- The device uses the power supply of the DALI bus, the bus must be able to drive at least 50mA.
- The connected ECG (electronic control gears) are controlled with DAPC (direct arc power control) commands in broadcast mode. All sensors are single master application controller and are intended for use with a DALI-2 control gear.
- The Bluetooth range is dependent on the integration of fixtures, surrounding environment and conditions. It is recommended to conduct testing for range accuracy.
- The ambient light sensor measures the average brightness in a room. When comparing measurements using a lux meter directly below the sensor, deviations can occur.

Conformity / marks of conformity



Link: 

Note

As attenuation and reflections can cause a high-frequency sensor to behave differently in any luminaire, we cannot accept any liability for the sensor not working as expected in the particular luminaire it is being used in. Accreditation can be provided by STEINEL. Please contact your contact person find out what assistance we can give you in designing the sensor module into a luminaire. The customer must also guarantee and take responsibility for the way in which the other components behave in the luminaire (lamp, ECG etc.).

The product is sold under the brand name STEINEL Solutions AG. Software updates are made available regularly. For your own branding and software update approval process, contact our OEM account manager.

This product data sheet provides no guarantee of qualities within the meaning of the statutory warranty provisions for the product described.