

SENSOTEC Sensor NET

110097568 / 110098724
 110097569 / 110098725
 110097570 / 110098727
 110097562 / 110098717
 110097563 / 110098718
 110097564 / 110098719
 110097565 / 110098720
 110097566 / 110098722
 110097567 / 110098723

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



HF2 NET



The HF2 NET is a high-frequency sensor module designed for built-in applications. Detection takes place through glass and non-metallic materials so that the modules can be used inside luminaires or other applications without any problems.

PIR NET



Small. Flat. Compact. Inconspicuous presence detector. 360° passive infrared sensor with a presence range of 4 x 4m (presence and radial movement) or 6 x 6m (tangential movement). With patented Fresnel lens.

Extension NET



The Extension NET is intended for a luminaire without sensors and is used to extend the Wirepas Mesh network.

HB PIR 3360 NET



A head for heights. Powerful reach. Reliable. Ideal for high ceilings in industrial buildings or commercial properties. For mounting heights of up to 14m. High-precision 360° infrared sensor. Maximum detection range diameter 36m. For watching over up to 1000sqm.

HB PIR 345 NET



Surveillance at the highest level. Infrared motion detector for indoors. Ideal for a rectangular detection in large heights in depots, high-bay warehouses, machine shops, check-in areas and departure lounges, installation height from 4m up to 14m, detection zone 30 x 4m (radial movements) for presence threshold 100 and 20 x 4m (radial movements) for presence threshold 200.

Connection variants

Intra



Zhaga



Wire



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 HF2, PIR, 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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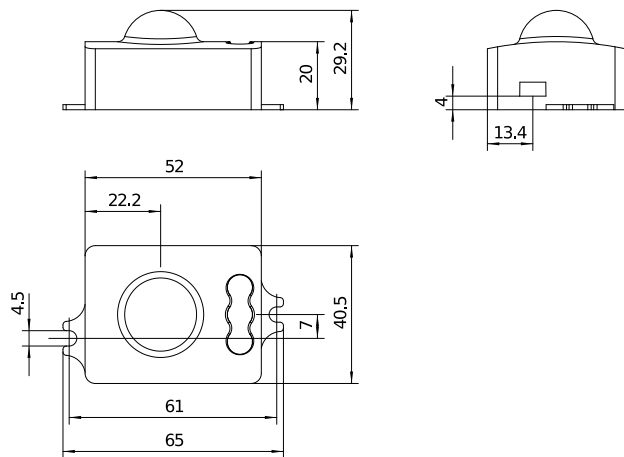
HF2 NET, PIR NET, Extension NET

Sensor technical specifications

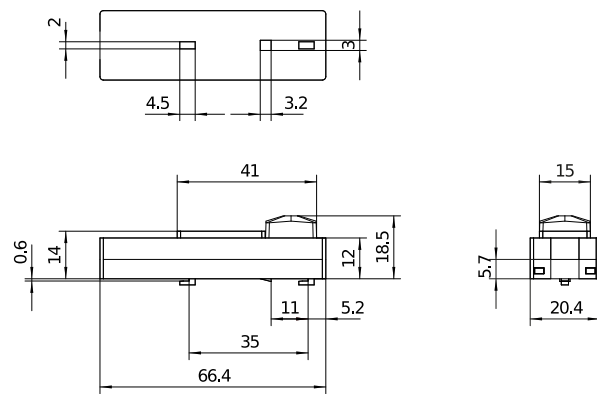
	HF2 NET MA	HF2 NET SL	PIR NET MA	PIR NET SL	Extension NET MA	Extension NET SL
Article number	110097568	110098724	110097569	110098725	110097570	110098727
Bluetooth Device Name	STE HF2 NET		STE PIR NET		STE EXT NET	
Type	9017		9018		9020	
Dimensions	52 × 40.5 × 29.2mm Hole spacing 61mm 3D data available online		66.4 × 20.4 × 18.5mm Fixing spacing 35mm 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	High-frequency technology		Passive infrared 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	2.5 - 3.5m		2.0 - 5.0m		-	
Optimum mounting height	2.8m		2.8m		-	
Reach, radial	Ø 8m (50m ²)		4 x 4m (16m ²)		-	
Reach, tangential	Ø 8m (50m ²)		6 x 6m (36m ²)		-	
Connection	0.34 - 0.75mm ²		0.34 - 0.75mm ²		0.34 - 0.75mm ²	
Supply voltage / current consumption	12 - 22.5VDC / max. 46mA		12 - 22.5VDC / max. 46mA		12 - 22.5VDC / max. 46mA	
IP rating:	IP20		IP20		IP20	
Temperature range	-20 bis +60°C (tc +60°C)		-25 bis +55°C (tc +55°C)		-25 bis +60°C (tc +60°C)	
Bluetooth Range	15m		25m		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 300 440		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

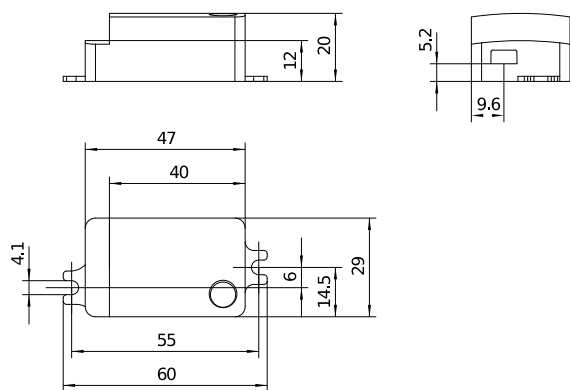
HF2 NET



PIR NET

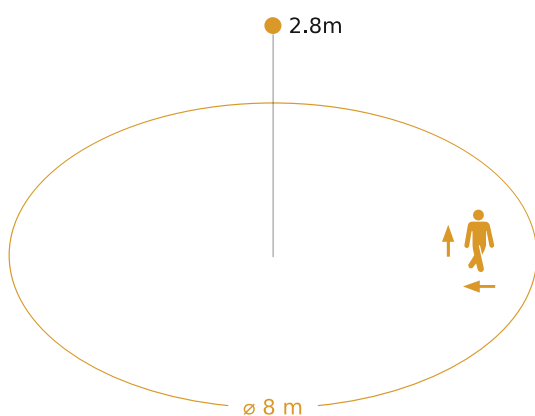


EXTENSION NET



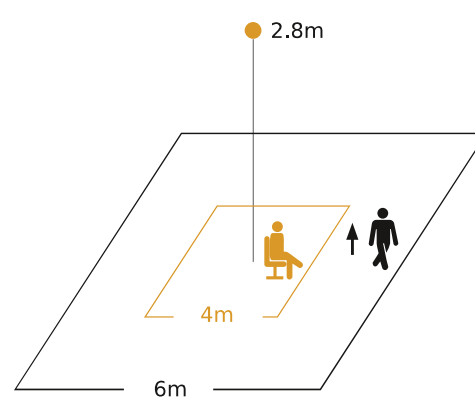
Sensor detection zones

HF2 NET



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

PIR NET



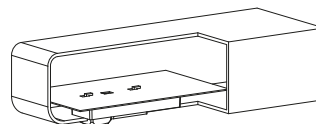
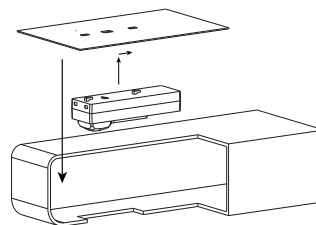
Possible mounting height 2m - 5m
Orange: presence
Black: tangential

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).

Installation advice PIR NET

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



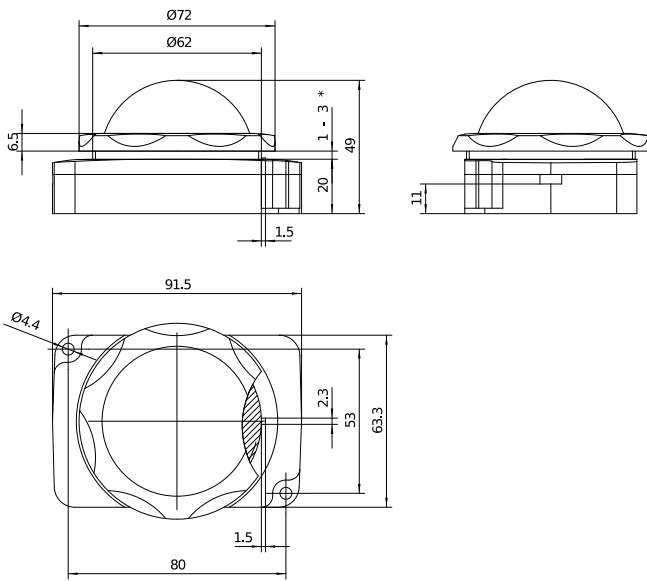
HB PIR 3360 NET Intra, Wire, Zhaga

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 (154m ²)		Ø 14m (154m ²)		Ø 14m (154m ²)	
Reach, tangential	Ø 36m (1018m ²)		Ø 36m (1018m ²)		Ø 36m (1018m ²)	
Connection	0.34 - 0.75mm ²		Connection strands (0.5mm ² , L=250mm, white)		Zhaga Book 18	
Supply voltage / current consumption	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 bis +50°C (tc +50°C)		-20 bis +50°C (tc +50°C)		-20 bis +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	

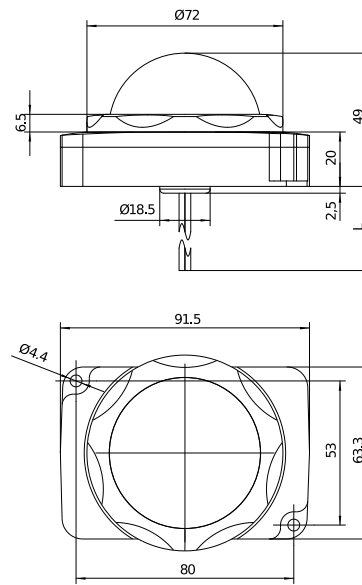
Dimensional drawings

HB PIR 3360 NET Intra

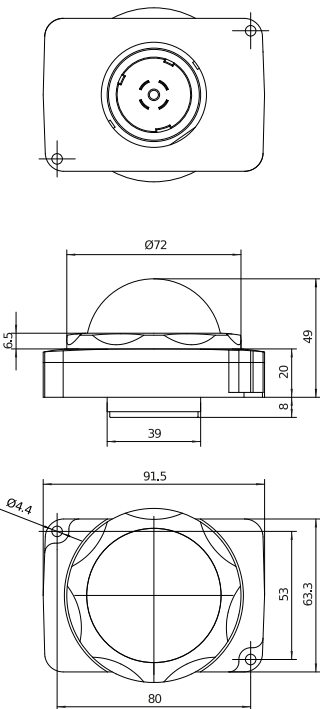


* wall thickness range

HB PIR 3360 NET Wire

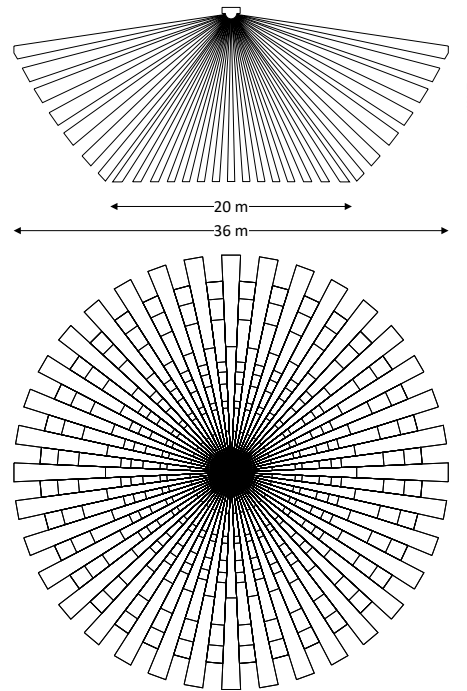
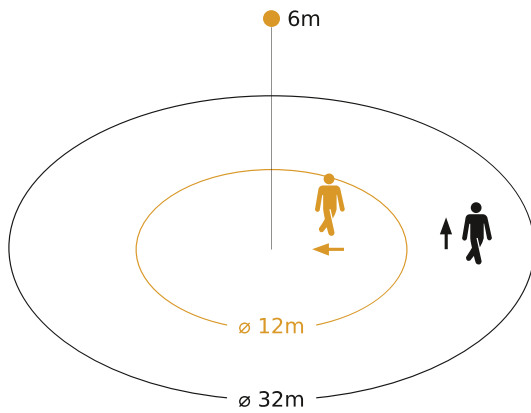


HB PIR 3360 NET Zhaga



Sensor detection zones

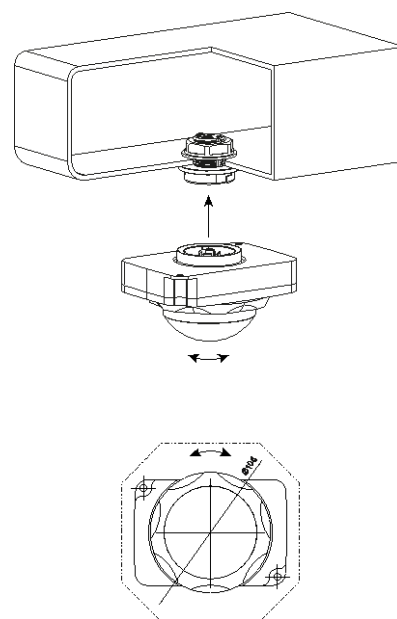
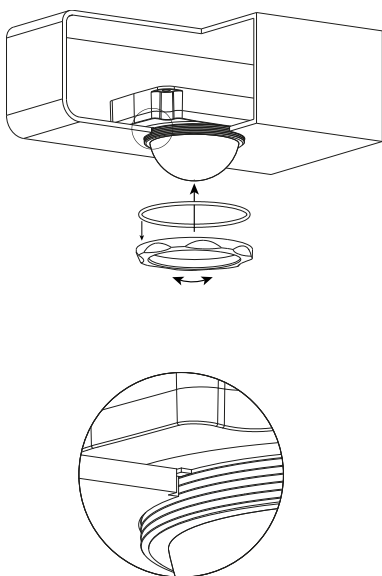
HB PIR 3360 NET



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.

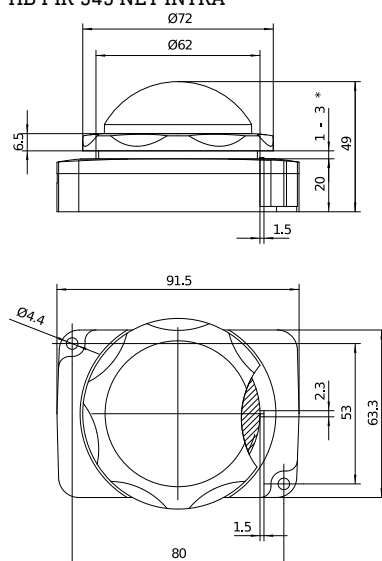
HB PIR 345 NET Intra, Wire, Zhaga

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	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 bis +50°C (tc +50°C)		-20 bis +50°C (tc +50°C)		-20 bis +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	

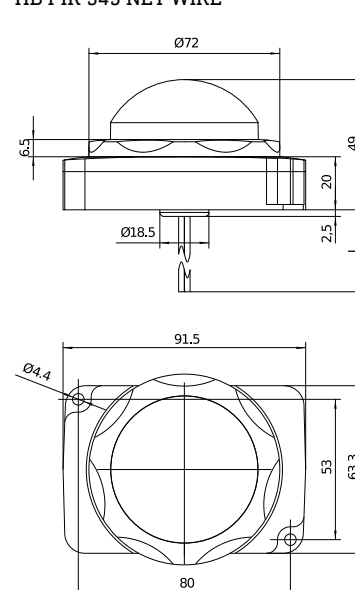
Dimensional drawings

HB PIR 345 NET INTRA

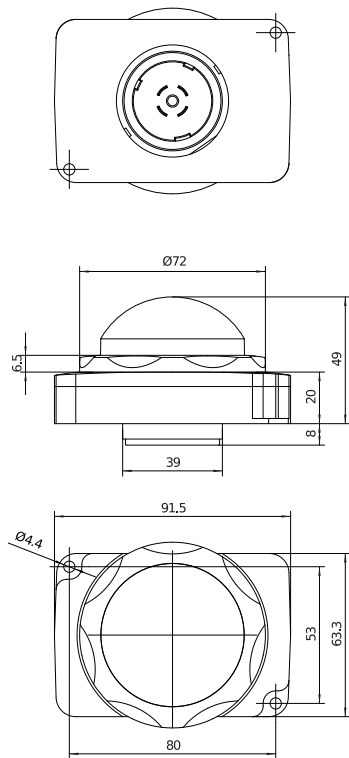


* wall thickness range

HB PIR 345 NET WIRE



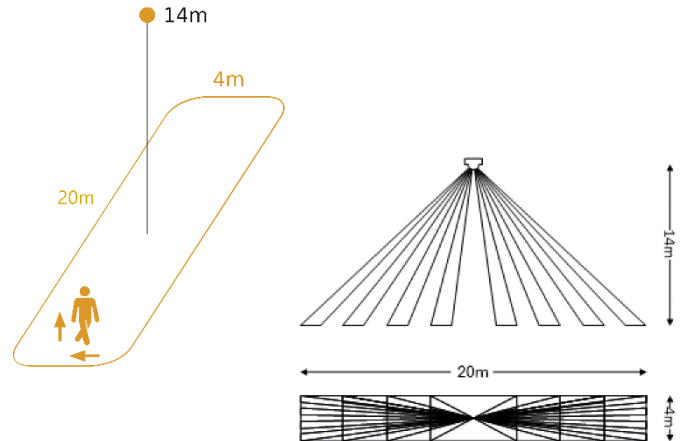
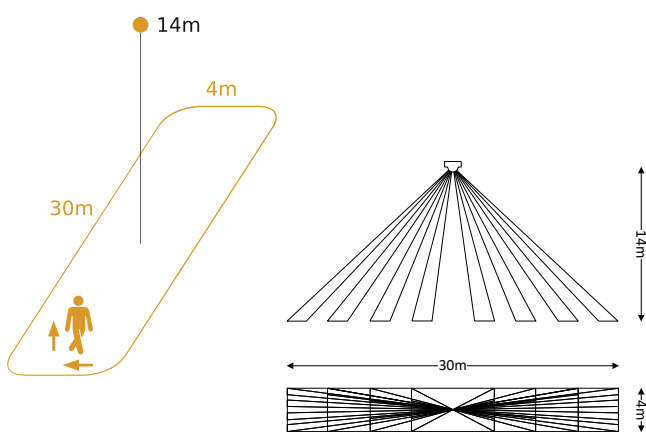
HB PIR 345 NET Zhaga



Sensor detection zones

HB PIR 345 NET – presence threshold 100

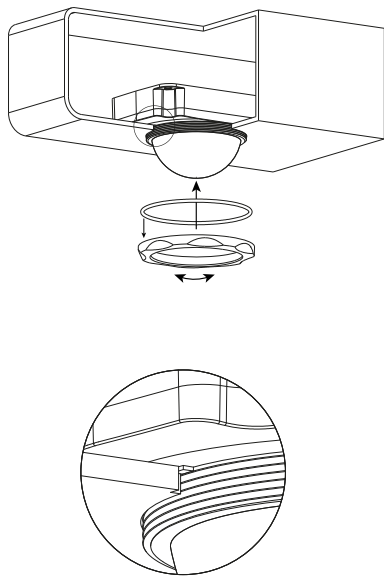
HB PIR 345 NET – presence threshold 200



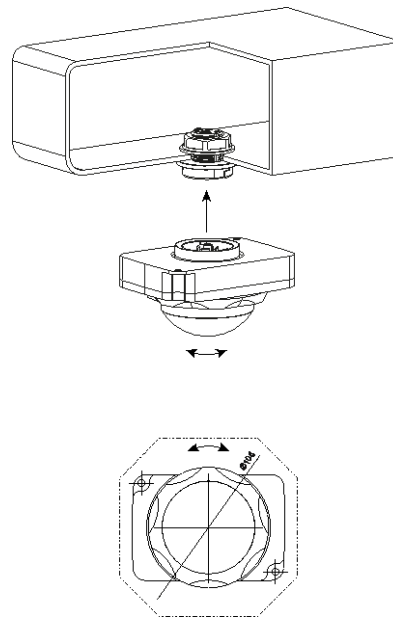
Possible mounting height: 4 - 14m
 Orange: radial and tangential

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).

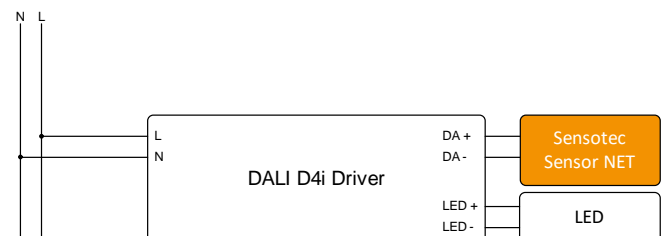
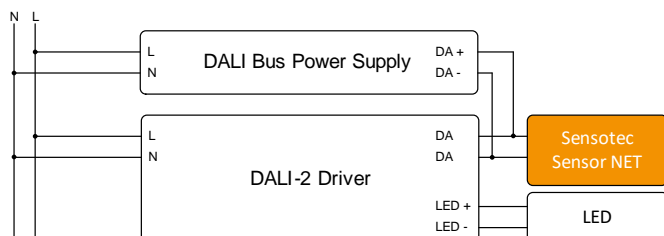


- Clearance of $\varnothing 106\text{mm}$ required for screwing the HB PIR 345 NET Zhaga onto the Zhaga base.

General information

Circuit diagram

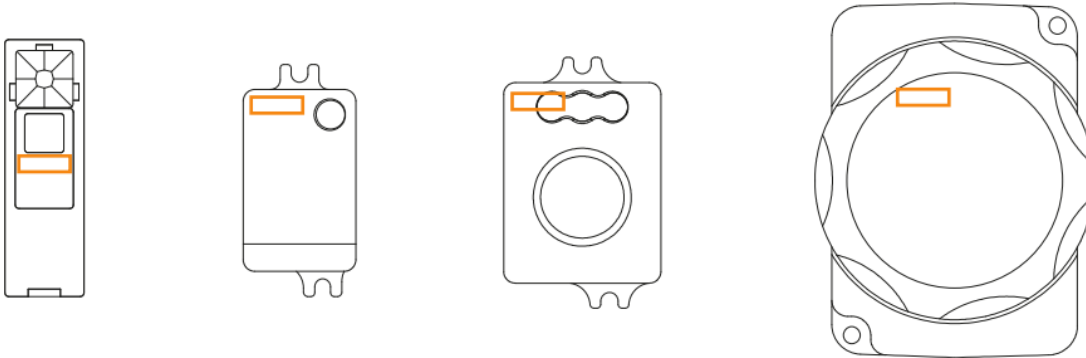
A wiring example with DALI control gear is shown below. If no additional DALI Bus Power Supply is used, the DALI-2 control gear must support at least Part 250 (Integrated bus power supply) and, by way of option, Part 252 (Energy reporting) and Part 253 (Diagnostics & maintenance).



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)
- Extremely compact size
- 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.