

SENSOTEC Sensor NET

| | |
|-----------|---------------------------------------|
| 110075223 | SENSOTEC Sensor HB PIR 3360 NET Intra |
| 110075224 | SENSOTEC Sensor HB PIR 3360 NET Wire |
| 110075225 | SENSOTEC Sensor HB PIR 3360 NET Zhaga |
| 110075226 | SENSOTEC Sensor HB PIR 345 NET Intra |
| 110075227 | SENSOTEC Sensor HB PIR 345 NET Wire |
| 110075228 | SENSOTEC Sensor HB PIR 345 NET Zhaga |
| 110075229 | SENSOTEC Sensor HF2 NET |
| 110075230 | SENSOTEC Sensor PIR NET |
| 110075231 | SENSOTEC Extension NET |

Technology Partner **SILVAIR**



HB PIR 3360 NET



HB PIR 345 NET



Intra



Wire



Zhaga



HF2 NET



PIR NET



Extension NET



SENSOTEC Sensor NET

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Technology Partner **SILVAIR**



Functional description

Our most innovative sensors wirelessly interconnect via a Bluetooth mesh network, they can be configured by app and control LED drivers via a DALI interface. Quick and easy to fit, they also provide installation flexibility. These are the benefits:

- Sensor with integrated DALI2 application controller
- Direct connection to a DALI interface
- Straightforward wiring, powered via the DALI bus
- Mesh network in line with Bluetooth SIG specification for interconnecting and integrating sensors and lights
- Parameterization and configuration via Bluetooth app
- Wireless firmware update of the entire network
- Constant-lighting control
- Any selectable main and basic light level
- User-defined lighting groups with configurable behavior
- Qualified Bluetooth mesh enabled by Silclair
- Suitable for up to 16 DALI-2 LED driver

Bluetooth Mesh (SIG) interconnectable sensors

HF2 NET

The HF2 NET is a radar sensor module designed for built-in applications. Capable of detecting movement through glass and non-metallic materials, these modules can be installed without a problem inside luminaires or other applications.

PIR NET

Small. Slim. Compact. Inconspicuous presence detectors. 360° passive infrared sensor with a presence detection zone of 4 x 4 m (presence and radial) or 6 x 6 m (tangential). With patented multi-segment pyro lens.

Extension NET

Intended to use in luminaires without sensor, the Extension NET is used for extending the Bluetooth mesh network.

Highbay versions

- STEINEL sensor technology for mounting inside luminaires or for mounting on the surface of luminaires
- Applications for offices, commercial properties, public buildings, industry and logistics (room heights of 2 to 14 m)
- Up to IP65 protection rating
- Luminaire surface-mounting versions with Zhaga base or strands for wiring

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 14 m. High-precision 360° infrared sensor. Maximum reach: 18 m. For watching over up to 1000 m².

HB PIR 345 NET

Surveillance at the highest level. Infrared motion detector for indoors, ideal for large heights in depots, high-bay warehouses, machine shops, check-in areas and departure lounges, installation height up to 14 m, detection zone 30 x 4 m (radial).

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Technology Partner **SILVAIR**



Sensor technical specifications

| | HB PIR 3360 NET Intra | HB PIR 3360 NET Wire | HB PIR 3360 NET Zhaga |
|-----------------------------|---|---|---|
| Type | 9016 | 9022 | 9021 |
| Dimensions | 91.5 × 63.3 × 49mm | 91.5 × 63.3 × 49mm Connection strands 250 mm (L) | 91.5 × 63.3 × 57mm |
| | 3-D data available on request | 3-D data available on request | 3-D data available on request |
| Features | Motion detector Light sensor Feedback indicator Bluetooth mesh | Motion detector Light sensor Feedback indicator Bluetooth mesh | Motion detector Light sensor Feedback indicator Bluetooth mesh |
| Sensor technology | Passive infrared technology | Passive infrared technology | Passive infrared technology |
| Transmitter power | - | - | - |
| Transmission frequency | - | - | - |
| Light measurement range | 4 - 1000 lx | 4 - 1000 lx | 4 - 1000 lx |
| Mounting height | 4.0 – 14.0 m | 4.0 – 14.0 m | 4.0 – 14.0 m |
| Optimum mounting height | 12.0 m | 12.0 m | 12.0 m |
| Reach, radial | Ø 7 m (38 m ²) | Ø 7 m (38 m ²) | Ø 7 m (38 m ²) |
| Reach, tangential | Ø 18 m (254 m ²) | Ø 18 m (254 m ²) | Ø 18 m (254 m ²) |
| Connection | 0.34 – 0.75 mm ² | Connection strands | Zhaga |
| Supply voltage / current | 12 - 22.5VDC / max. 46mA | 12 - 22.5VDC / max. 46mA | 12 - 22.5VDC / max. 46mA |
| IP rating: | IP20 / IP65* * sealed lens | IP65 | IP65 |
| Protection class | - | - | - |
| Temperature range | -20°C to +50°C | -20°C to +50°C | -20°C to +50°C |
| tc | 50°C | 50°C | 50°C |
| Bluetooth Range | 35 m | 35 m | 35 m |
| Interfaces | DALI, Bluetooth | DALI, Bluetooth | DALI, Bluetooth |
| 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 |

SENSOTEC Sensor NET

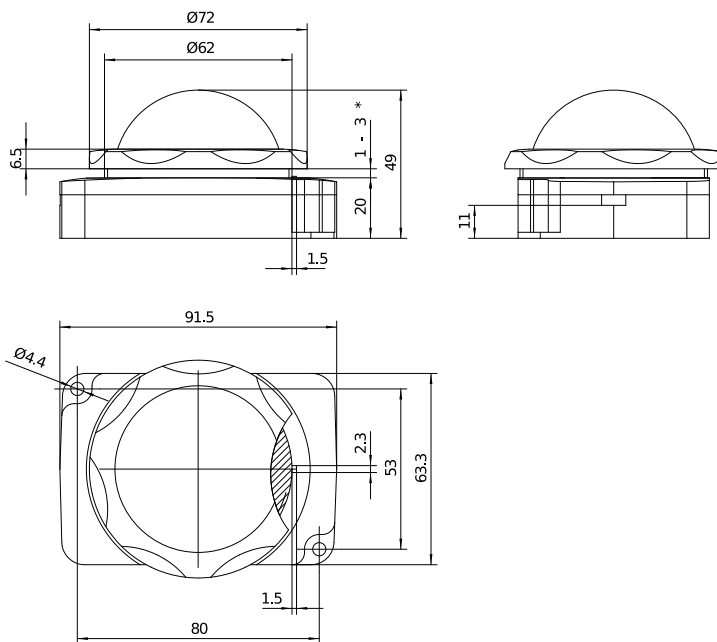
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Technology Partner **SILVAIR**



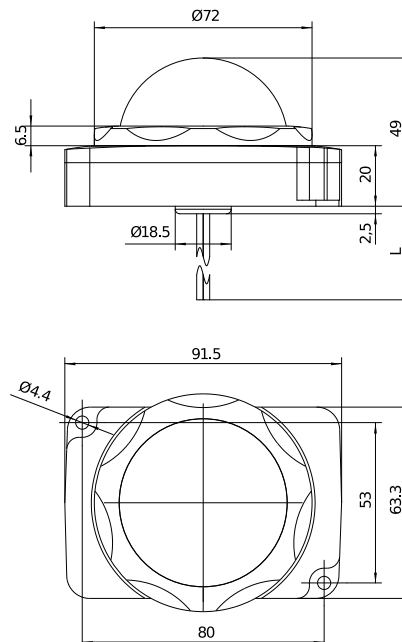
Dimensional drawings

HB PIR 3360 NET Intra



* wall thickness range

HB PIR 3360 NET Wire



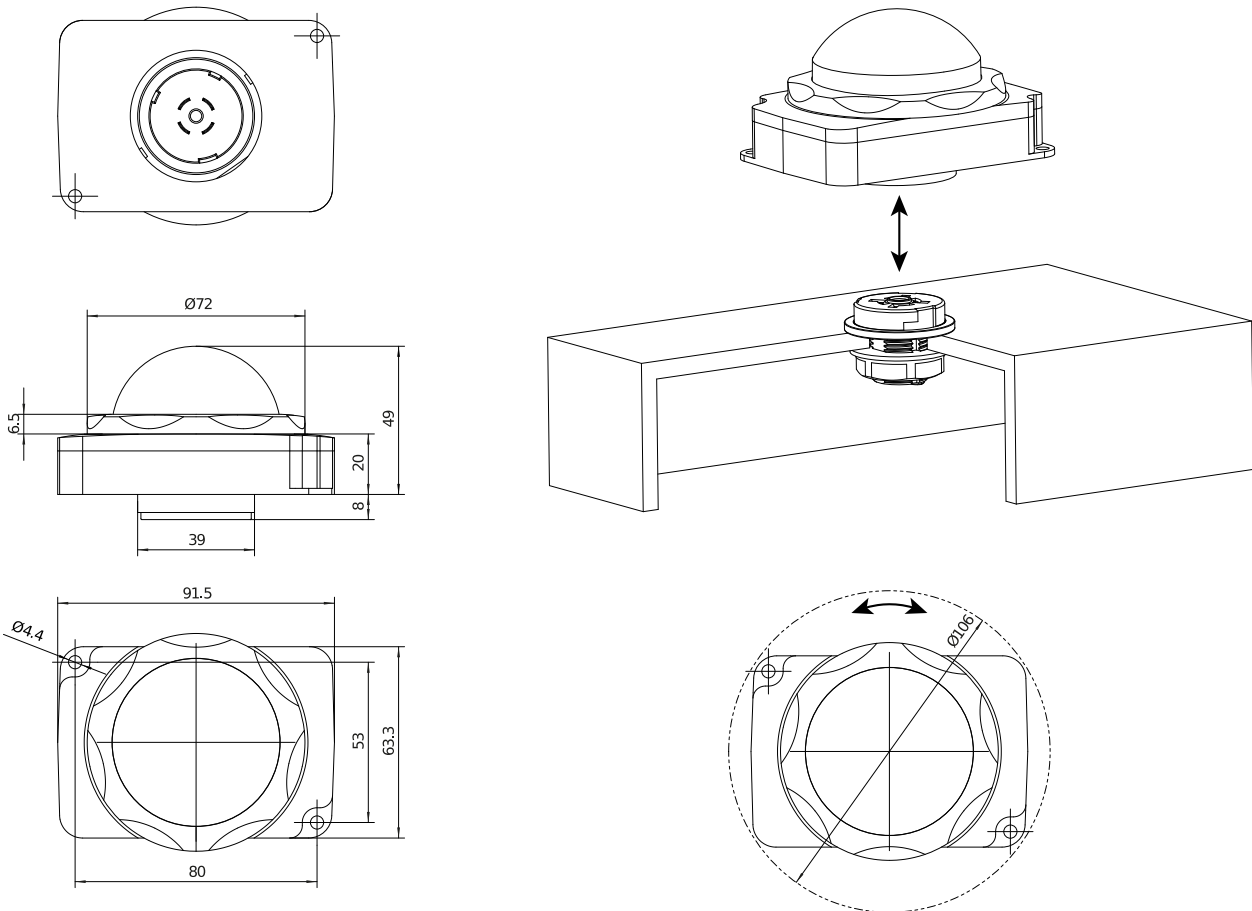
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HB PIR 3360 NET Zhaga



Notes: 106mm Ø clearance required for screwing the HB PIR 3360 NET onto the Zhaga base.

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| 110075231 | SENSOTEC Extension NET |

Technology Partner **SILVAIR**



Sensor technical specifications

| | HB PIR 345 NET Intra | HB PIR 345 NET Wire | HB PIR 345 NET Zhaga |
|-----------------------------|---|---|---|
| Type | 9015 | 9024 | 9023 |
| Dimensions | 91.5 × 63.3 × 49mm | 91.5 × 63.3 × 49mm Connection strands 250 mm (L) | 91.5 × 63.3 × 57mm |
| | 3-D data available on request | 3-D data available on request | 3-D data available on request |
| Features | Motion detector Light sensor Feedback indicator Bluetooth mesh | Motion detector Light sensor Feedback indicator Bluetooth mesh | Motion detector Light sensor Feedback indicator Bluetooth mesh |
| Sensor technology | Passive infrared technology | Passive infrared technology | Passive infrared technology |
| Transmitter power | - | - | - |
| Transmission frequency | - | - | - |
| Light measurement range | 4 - 1000 lx | 4 - 1000 lx | 4 - 1000 lx |
| Mounting height | 4.0 – 14.0 m | 4.0 – 14.0 m | 4.0 – 14.0 m |
| Optimum mounting height | 12.0 m | 12.0 m | 12.0 m |
| Reach, radial | 30 x 4 m (120 m ²) | 30 x 4 m (120 m ²) | 30 x 4 m (120 m ²) |
| Reach, tangential | 30 x 4 m (120 m ²) | 30 x 4 m (120 m ²) | 30 x 4 m (120 m ²) |
| Connection | 0.34 – 0.75 mm ² | Connection strands | Zhaga |
| Supply voltage / current | 12 - 22.5VDC / max. 46mA | 12 - 22.5VDC / max. 46mA | 12 - 22.5VDC / max. 46mA |
| IP rating: | IP20 / IP65* * sealed lens | IP65 | IP65 |
| Protection class | - | - | - |
| Temperature range | -20°C to +50°C | -20°C to +50°C | -20°C to +50°C |
| tc | 50°C | 50°C | 50°C |
| Bluetooth Range | 35 m | 35 m | 35 m |
| Interfaces | DALI, Bluetooth | DALI, Bluetooth | DALI, Bluetooth |
| 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 |

SENSOTEC Sensor NET

110075223 SENSOTEC Sensor HB PIR 3360 NET Intra
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 110075225 SENSOTEC Sensor HB PIR 3360 NET Zhaga

110075226 SENSOTEC Sensor HB PIR 345 NET Intra
 110075227 SENSOTEC Sensor HB PIR 345 NET Wire
 110075228 SENSOTEC Sensor HB PIR 345 NET Zhaga

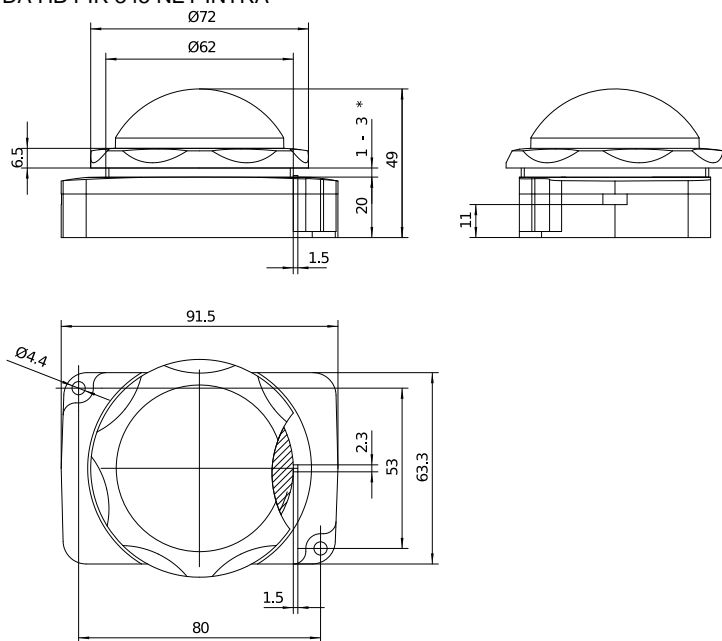
110075229 SENSOTEC Sensor HF2 NET
 110075230 SENSOTEC Sensor PIR NET
 110075231 SENSOTEC Extension NET

Technology Partner **SILVAIR**



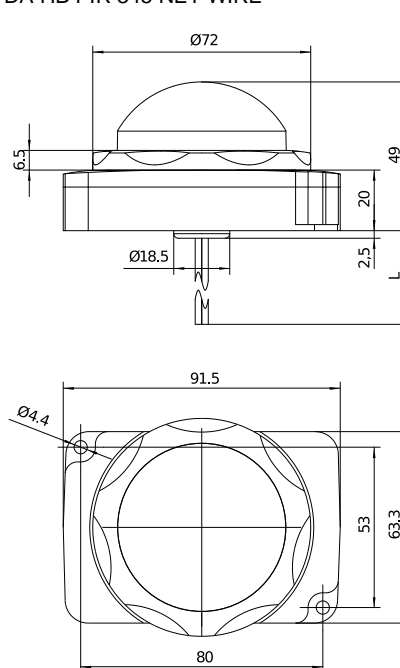
Dimensional drawings

DA HB PIR 345 NET INTRA



* wall thickness range

DA HB PIR 345 NET WIRE



SENSOTEC Sensor NET

110075223 SENSOTEC Sensor HB PIR 3360 NET Intra
 110075224 SENSOTEC Sensor HB PIR 3360 NET Wire
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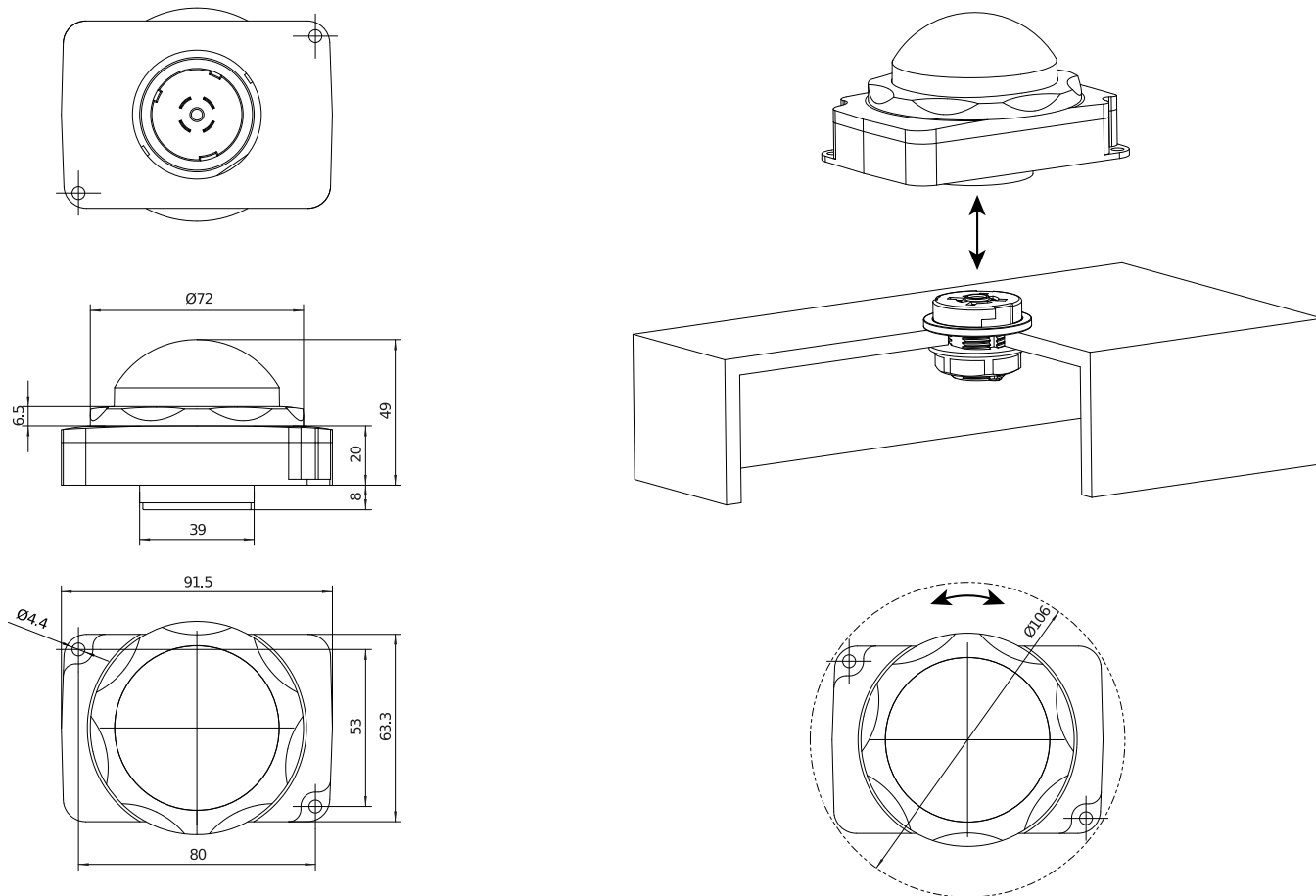
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110075229 SENSOTEC Sensor HF2 NET
 110075230 SENSOTEC Sensor PIR NET
 110075231 SENSOTEC Extension NET

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HB PIR 345 NET Zhaga



Note: 106mm Ø clearance required for screwing the HB PIR 3360 NET Zhaga onto the Zhaga base.

SENSOTEC Sensor NET

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| 110075231 | SENSOTEC Extension NET |

Technology Partner **SILVAIR**



Sensor technical specifications

| | HF2 NET | PIR NET | Extension NET |
|-----------------------------|---|---|--|
| Type | 9017 | 9018 | 9020 |
| Dimensions | 52 x 40.5 x 29.2 mm Hole spacing 61mm 3-D data available on request | 66.4 x 20.4 x 18.5mm Fixing spacing 35 mm 3-D data available on request | 47 x 29 x 20 mm Hole spacing 55 mm 3-D data available on request |
| Features | Motion detector Light sensor Feedback indicator Bluetooth mesh | Motion detector Light sensor Feedback indicator Bluetooth mesh | - - Feedback indicator Bluetooth mesh |
| Sensor technology | High-frequency technology Rod aerial | Passive infrared technology | - |
| Transmitter power | 1 - 2 mW | - | - |
| Transmission frequency | 5.8GHz | - | - |
| Light measurement range | 4 - 1000 lx | 4 - 1000 lx | 4 - 1000 lx |
| Angle of coverage | 360° with 160° angle of aperture | | |
| Mounting height | 2.5 – 3.5 m | 2.0 – 5.0 m | |
| Optimum mounting height | 2.8 m | 2.8 m | |
| Reach, radial | Ø 8 m (50 m ²) | 4 x 4m (16 m ²) | |
| Reach, tangential | Ø 8 m (50 m ²) | 6 x 6m (36 m ²) | |
| Connection | 0.34 – 0.75 mm ² | 0.34 – 0.75 mm ² | 0.34 – 0.75 mm ² |
| Supply voltage / current | 12 - 22.5VDC / max. 46mA | 12 - 22.5VDC / max. 46mA | 12 - 22.5VDC / max. 46mA |
| IP rating: | IP20 | IP20 | IP20 |
| Protection class | | | |
| Temperature range | -20°C to +60°C | -25°C to +55°C | -25°C to +60°C |
| tc | 60°C | 55°C | 60°C |
| Bluetooth Range | 15 m | 25 m | 35 m |
| Interfaces | DALI, Bluetooth | DALI, Bluetooth | DALI, Bluetooth |
| 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 |

SENSOTEC Sensor NET

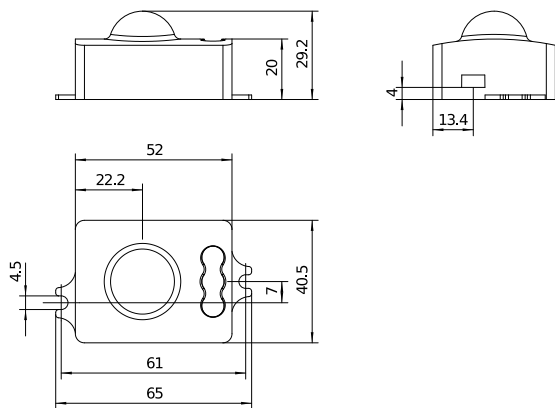
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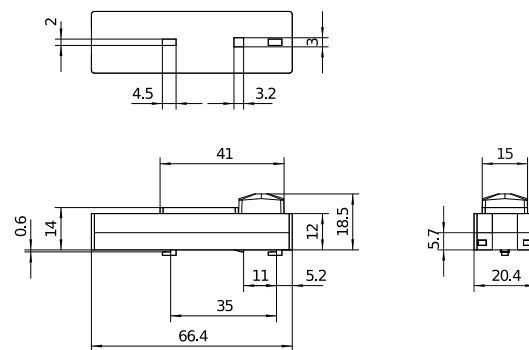


Dimensional drawings

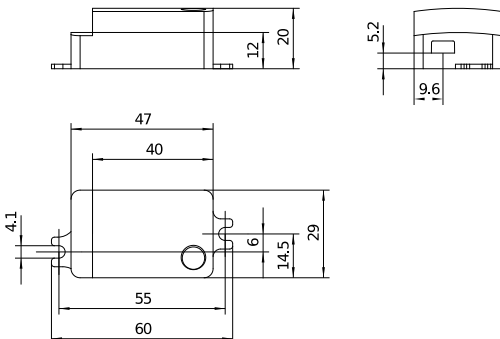
HF2 NET



PIR NET



EXTENSION NET



SENSOTEC Sensor NET

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 110075228 SENSOTEC Sensor HB PIR 345 NET Zhaga

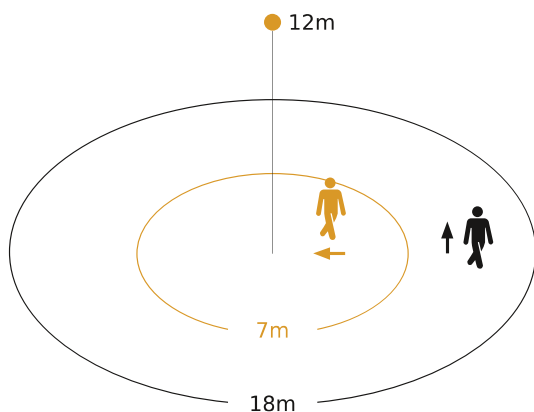
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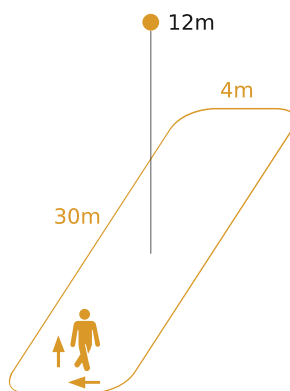
Sensor detection zones

HB PIR 3360 NET



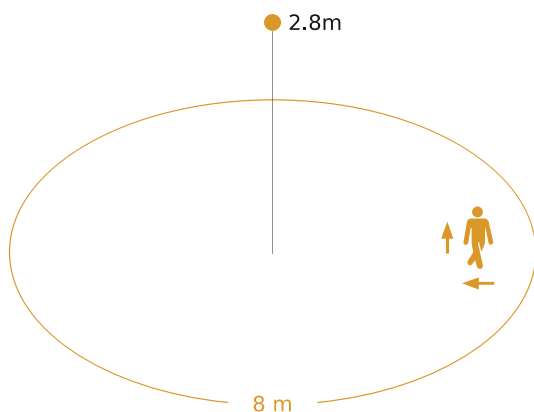
Possible mounting height: 4.00 m – 14.00m
 Orange: radial
 Black: tangential

HB PIR 345 NET



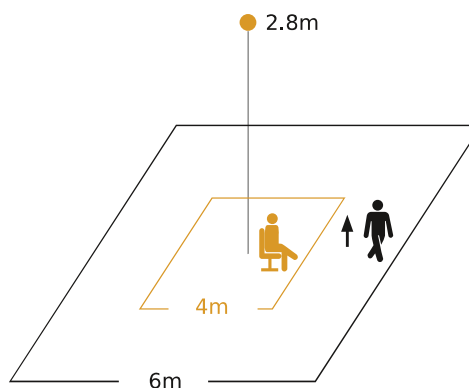
Possible mounting height: 4.00 m – 14.00m
 Orange: radial and tangential

HF2 NET



Possible mounting height 2.5 m – 3.50m
 Orange: radial and tangential

PIR NET



Possible mounting height 2.00 m – 5.00 m
 Orange: presence
 Black: tangential

SENSOTEC Sensor NET

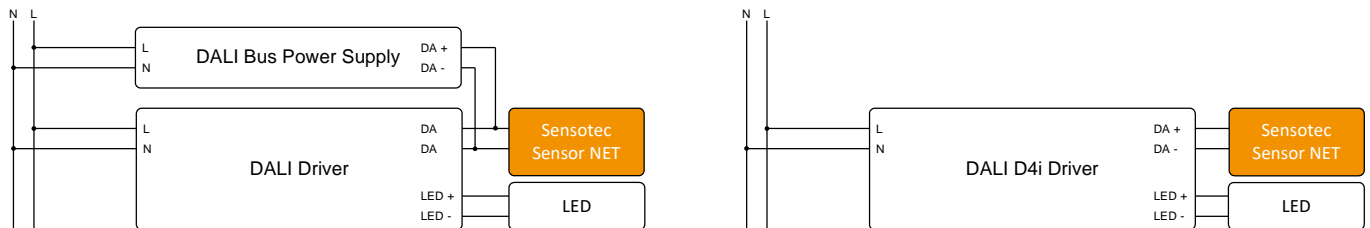
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Circuit diagram

A wiring example with DALI control gear is shown below. If no additional DALI Bus Power Supply is used, the DALI 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).



Installation advantages

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

Installation advice - HB PIR 3360 / 345 NET

- Suitable for a material thickness of 1 to 3 mm
- Hole diameter for lens 62.5 to 63mm
- Alignment is done by mechanical positioning (see dimensional drawings)

Installation advice - HF2 NET

- For indoor use only.
- Pay attention to luminaire materials (interference, reflections, attenuation).
- The connected ECG must not exceed the specifications at any time.
- Design-in support from STEINEL specialists.

Installation advice - PIR NET

- Provide an aperture 15 mm wide x 41 mm long
- Suitable for a material thickness of 0.5 - 2 mm
- The sensor must have an unobstructed line of vision to the object being detected

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Safety precautions

- Electrical devices must only be assembled and installed by qualified electricians.
- Fire hazard. The maximum permissible load must not be exceeded.
- 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

The sensors are commissioned and configured using any Bluetooth mesh compatible app. Or the Silvair app recommended by us.



Silvair Lighting commissioning app

Link: <https://apps.apple.com/us/app/silvair/id1281447717>

The SN-204 Silvair Commissioning Quick Guide is recommended as an introduction. (<https://silvair.com/resources/product-documents/>)

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 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.
- As Qualified Bluetooth mesh is an open standard, our sensor can be commissioned by any Bluetooth mesh app that is based on the standard.

Conformity / marks of conformity



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 our OEM Account Manager to 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.