



Information
HPD 3 IP



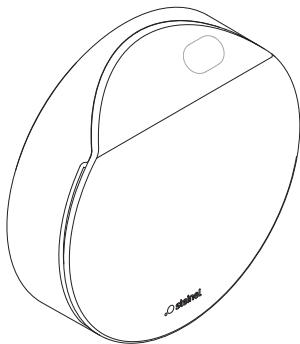
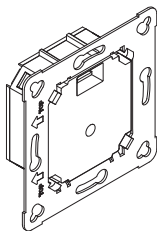
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Textteil beachten!

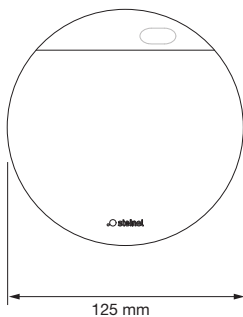
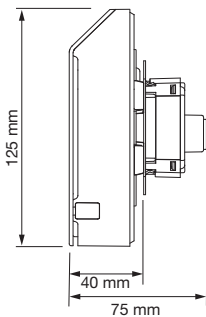
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Follow written instructions!

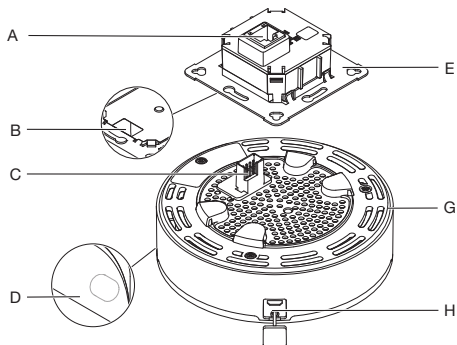
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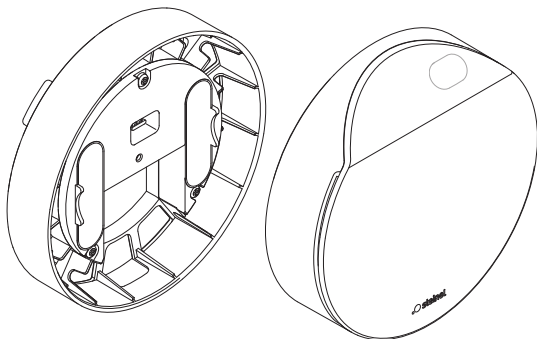
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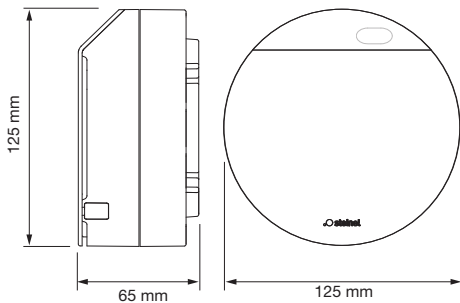
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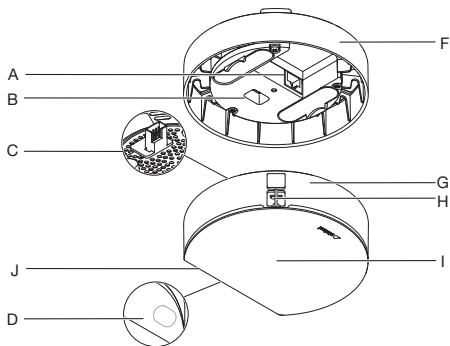
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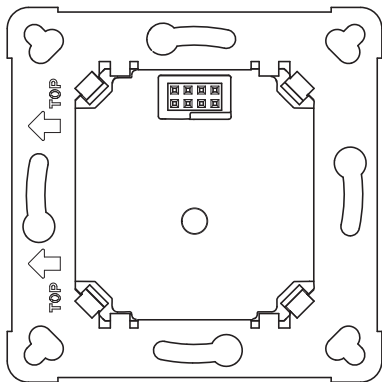
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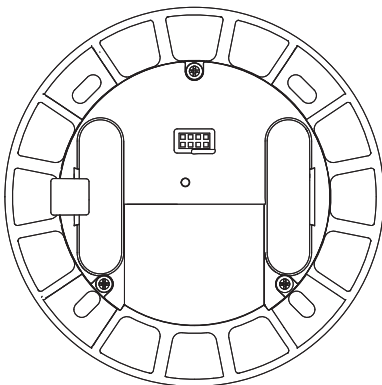
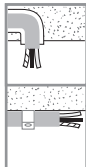
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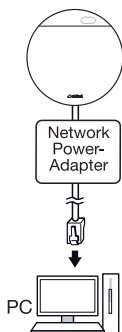
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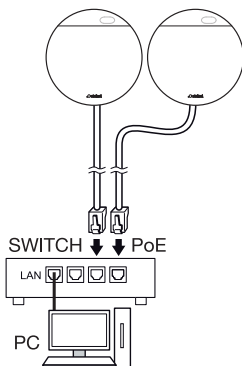
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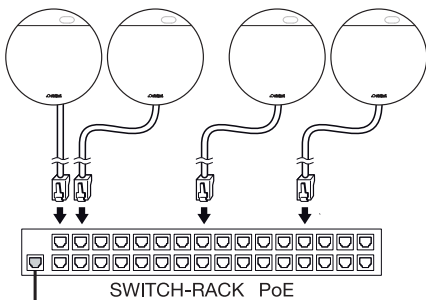


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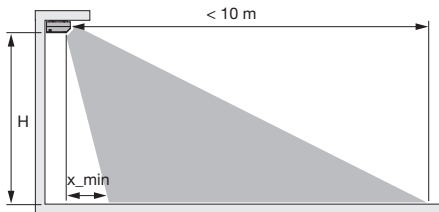


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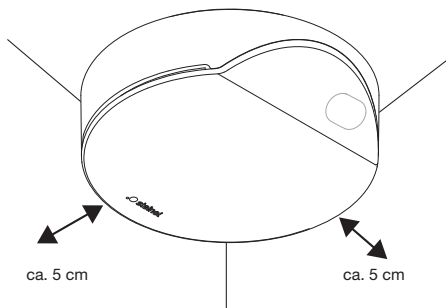
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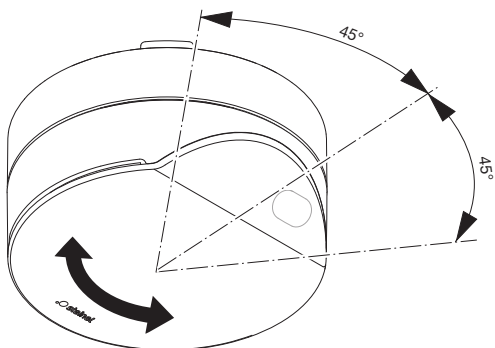
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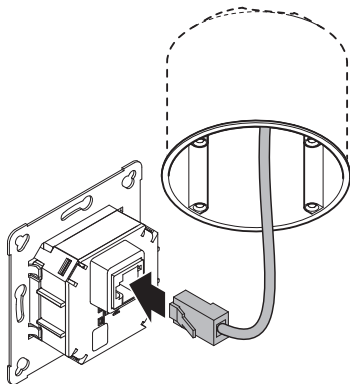
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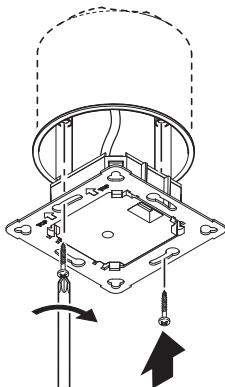
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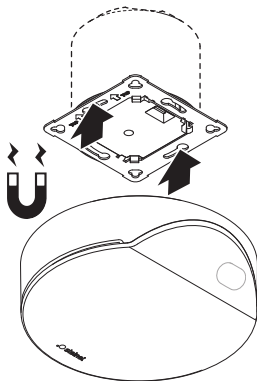
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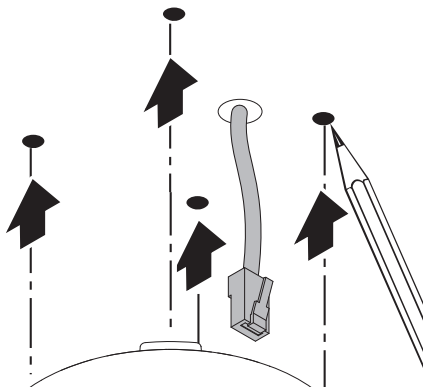
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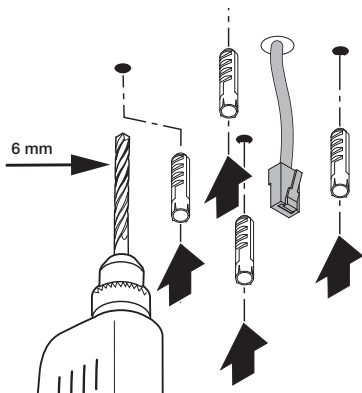
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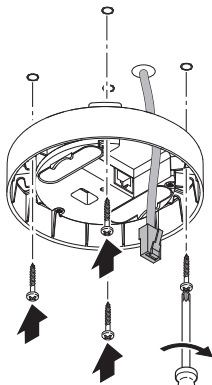
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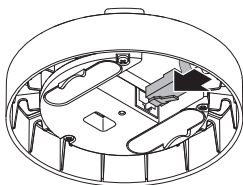
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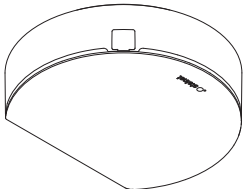
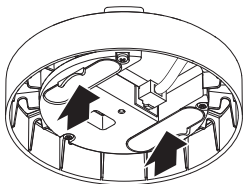
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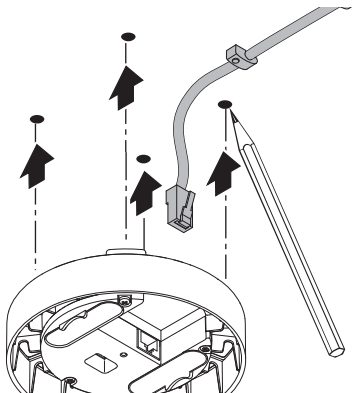
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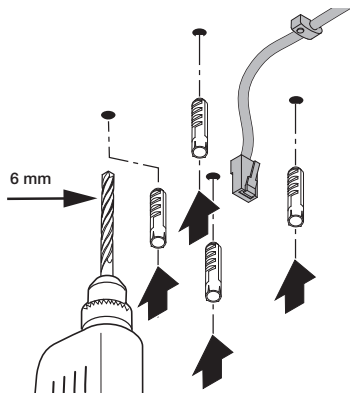
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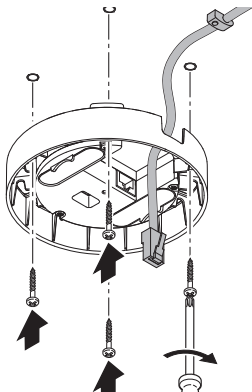
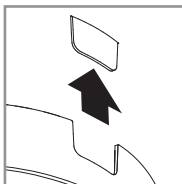
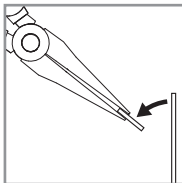
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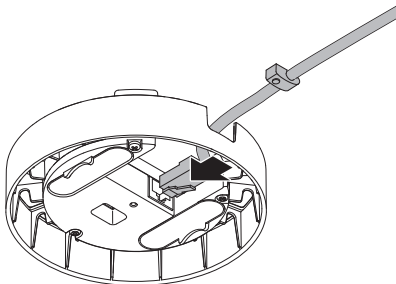
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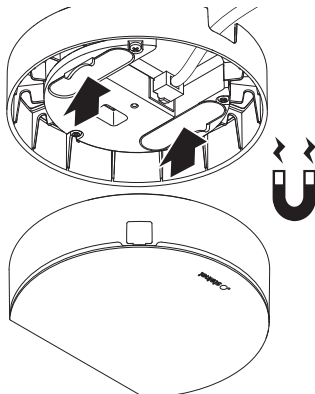
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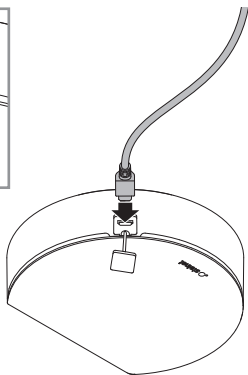
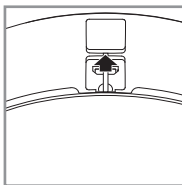
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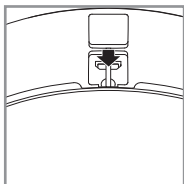
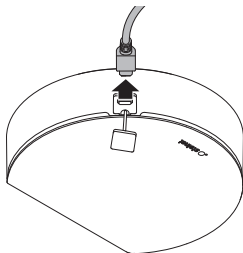


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6.1





1. About this document

- Under copyright. Reproduction either in whole or in part only with our consent.
- Subject to change in the interest of technical progress.

2. General safety precautions



Failure to observe these operating instructions presents hazards!

These instructions contain important information on the safe use of this product. Particular attention is drawn to potential hazards. Failure to observe this information may lead to death or serious injuries.

- Read instructions carefully.
- Follow safety advice.
- Keep instructions within easy reach.
- Working with electrical current may produce hazardous situations. Touching live parts can result in electrical shock, burns or death.
- Work on mains voltage must only be performed by qualified, skilled personnel.
- National wiring regulations and electrical operating conditions must be observed (e.g. D: VDE 0100, A: ÖVE-ÖNORM E8001-1, CH: SEV 1000).
- Only use genuine replacement parts.
- Repairs must be made by specialist workshops.

3. HPD 3 IP

Proper use

Human presence detector for ceiling mounting indoors.

Features

- Human presence detector (turns through $\pm 45^\circ$)
- SIR 13D radar sensor
- Temperature sensor
- Humidity sensor
- VOC sensor

- RGB status LED
- USB connection (set-up)
- PoE
- Bluetooth

Operating principle

- Human presence detector that analyses images directly in the sensor.
- Detects persons and counts them (whether sitting, standing, moving or still).
- Settings made using the configuration interface via web browser.
- IP protocol: REST API, BACnet, MQTT.
- Security: TLS 1.2.

PoE module:

- Communication interface.
- IP protocols: Rest API, BACnet, MQTT.
- Basic settings.
- Security: TLS 1.2.
- Web server.

USB interface:

- Detailed settings.
- Settings for the zones in the image.

Values available via the IP interface:

- Number of persons for 10 zones.
- Light levels for 10 zones.
- Values cumulated for all zones (persons, light levels).
- Temperature.
- Relative humidity.
- Movement detected by HF sensor.
- Presence detected by optical sensor.
- Information on low ambient light level.

Values sent via Bluetooth:

- Number of persons for 10 zones.
- Global light.
- Movement detected by HF sensor.

Note:

If one or more zones are configured, these zones only measure global light (unification of these zones).

Note:

The integrated algorithm compares the silhouette of a human being's upper body (head, shoulders) with the sensor image by means of a neural network. The image is evaluated entirely in the HPD 3's processor.

No personal data is sent out.

The number of persons can only be counted correctly in sufficiently illuminated zones.

The integrated HF sensor can be used to activate lighting in the room.

No personal data is sent out.

Installation instructions:

HPD 3 Quick Start.

Package contents (Fig. 3.1/3.4)**Product dimensions (Fig. 3.2/3.5)****Product parts (Fig. 3.3/3.6)**

- A** IP connection
- B** Socket
- C** Plug
- D** Optical sensor and SIR 13D radar sensor
- E** Concealed load module
- F** Surface-mounted load module
- G** Sensor module
- H** Micro USB port
- I** Status LED
- J** Temperature, humidity, VOC sensor

Technical specifications

- Dimensions ($\varnothing \times D$):
concealed: 125 × 40 mm
(125 × 75 mm with PoE module)
surface-mounted: 125 × 65 mm
- Connection:
PoE 802.3af class 2
PoE 24-57 V --- 4 W
- Security:
TLS 1.2
- Protocols:
Rest API, BACnet, MQTT
- Sensor type:
optical sensor and high-frequency sensor
- Where to use:
indoors
- Installation:
ceiling
- Mounting height:
2.3 m to max. 5 m
- Optimum mounting height:
2.6 m
- Angle of coverage :
optical sensor: 110°
HF sensor: 160°
- Detection limitation:
max. 10 detection zones /
max. 3 non-detection zones
- Reach:
optical sensor: max. 10 m
HF sensor: max. 9 m
- Temperature range:
0°C to +40°C
- IP rating:
IP20
- Light level:
2 - 2,000 lux
- Value range for temperature sensor:
0 - 40°C +/- 1°C
- Value range for humidity sensor:
20-90% +/- 5%
- Value range for VOC sensor:
0 - 60,000 ppb

4. Electrical connection

Concealed electrical connection with concealed load module (Fig. 4.1)

Concealed electrical connection with surface-mounted load module (Fig. 4.2)

Surface-mounted electrical connection with surface-mounted load module (Fig. 4.2)

Connection is made via the LAN cable:

- PoE 802.3af class 2
- PoE 24-57 V --- 4 W

Connection examples for IP

- Connecting a single sensor to a PC via a network power adapter. (Fig. 4.3)
- Connecting several sensors to a switch with POE functionality for access to PC. (Fig. 4.4)
- Integrating several sensors into a network infrastructure via a switch with POE functionality. (Fig. 4.5)

5. Installation

Preparing for installation

- Check all components for damage. Do not use the product if it is damaged.
- Select an appropriate site to install the product.
 - Taking into account the optical sensor's reach. (Fig. 5.1)

H in m	2.5	3	4	5
X min in m	0.8	1	1.1	1.3

- Taking into account the HF sensor's motion detection.
 - Vibration-free.
 - No obstacles in detection zone (e.g. metal objects or water walls)
 - Not in explosive atmospheres.
 - Not on normally flammable surfaces.
- Aim sensor in appropriate direction.
 - Taking into account the direction in which the sensor is aimed. (Fig. 5.3)
 - **The load module must be mounted on the ceiling and correctly aimed.** The socket on the load module points towards the sensor on the sensor module. (Fig. 3.3/3.6)
 - Glare-free.

Mounting procedure

Concealed installation with concealed load module

- Make plug connection. (Fig. 5.4)
- Firmly screw concealed load module onto mounting box. (Fig. 5.5)
- Fit magnetic sensor module on frame. (Fig. 5.6)

Concealed installation with surface-mounted load module

- Mark drill holes. (Fig. 5.7)
- Drill holes and insert screw anchors. (Fig. 5.8)
- Feed through cable. (Fig. 5.9)
- Screw PoE module into place. (Fig. 5.9)
- Make plug connection. (Fig. 5.10)
- Fit magnetic sensor module on frame. (Fig. 5.11)

Surface-mounted installation with surface-mounted load module

- Mark drill holes. (Fig. 5.12)
- Drill holes and insert screw anchors. (Fig. 5.13)
- Break out tab. Feed through cable. (Fig. 5.14)
- Screw PoE module into place. (Fig. 5.14)
- Make plug connection. (Fig. 5.15)
- Fit magnetic sensor module. (Fig. 5.16)

6. Operation/configuration

Configuring sensor via USB

- Provide power supply via PoE.
- Remove micro USB cover. (Fig. 6.1)
- Connect sensor to a PC or laptop using a micro USB cable. (Fig. 6.1)
The PC will now show a new network adapter.
- If necessary, install the the RNDIS driver on your laptop.
- Configure network adapter with IPv4 address 10.88.0.1.
- Start web browser.
- Open the configuration interface via the USB standard IP address: 10.88.0.2.
 - The standard password for the USB interface (web server via USB) is:
adm123
 - The password for opening the image is: **steinel**

Setting the IP interface

- Set up LAN access to the sensor.
 - Factory-set IP address 192.168.1.200.
 - The computer must be set to the same sub-network (192.168.1.0/24).
- Start web browser.

- Open configuration interface via the USB standard IP address.
 - A customised IP or a DHCP client can be set up via the web interface.

The standard passwords for the IP interface are:

- Admin password: **adm123**
- User password: **updwd123**

Access to sensor data via rest api: the following link is needed to fetch data on a once-only basis in REST: <https://192.168.1.200/rest>
MQTT or BACnet is recommended for getting data permanently.

- Change the admin password to your own secure password directly after logging in for the first time. Password requirements:
 - Password length: at least 8 characters
 - At least 3 character types: a distinction is drawn between lower and upper-case letters, numbers and special characters.

Setting via Bluetooth

- HF sensors sensitivity.
- Resetting the entire PoE module configuration (only the first 10 minutes after switching the sensor ON).
- Resetting the Bluetooth Mesh network.
- Resetting all parameters (Bluetooth parameters, entire PoE module configuration).

Detailed description:

See Quick Start Guide:
www.steinell.de

7. Malfunctions

No connection with the sensor.

- Break in network cable or network cable not connected.
- Check cabling.
- No PoE injector installed, or the network switch being used does not support PoE.
- Check PoE supply.
- IP address incorrectly configured.
- Check network settings.
- It may be necessary to reset via Steinel Connect app and re-connect with standard configuration.
- Firewall preventing communication.
- Check firewall settings.

Sensor counting number of persons incorrectly

- Persons cannot be identified by the sensor
- Persons only partially identifiable (leg, shoulder, head)
- Ensure unobstructed sensor vision.
- Make sure that persons are not concealed by plants etc.
- Change detection sensitivity.

8. Cleaning and maintenance



Hazard from electrical power.

Contact between water and live parts can result in electric shock, burns or death.

- Product must not be wet-cleaned.

Risk of damage to property!

Using the wrong cleaning product can damage the light.

- Make sure detergent does not harm the surface.
- Clean light with a soft cloth and mild detergent.

9. Disposal

Electrical and electronic equipment, accessories and packaging must be recycled in an environmentally compatible manner.



Do not dispose of electrical and electronic equipment as domestic waste.

EU countries only:

Under the current European Directive on Waste Electrical and Electronic Equipment and its implementation in national law, electrical and electronic equipment no longer suitable for use must be collected separately and recycled in an environmentally compatible manner.

10. Conformity

STEINEL GmbH hereby declares that the HPD 3 IP radio equipment type conforms to Directive 2014/53/EU. The full wording of the EU Declaration of Conformity is available for downloading from the following Internet address: www.steinell.de

11. Manufacturer's warranty

Manufacturer's warranty of STEINEL GmbH, Dieselstrasse 80-84, DE-33442 Herzebrock-Clarholz, Germany

All STEINEL products meet the highest quality standards. For this reason, we, the manufacturer, are pleased to provide you, the customer, with a warranty under the following terms and conditions:

The warranty covers the absence of deficiencies which are proven to be the result of a material defect or fault in manufacturing and which are reported to us immediately after detection and within the warranty period. The warranty shall cover all STEINEL Professional products sold and used in Germany.

Our warranty cover for consumers

The provisions below apply to consumers. A consumer is any natural person who, on entering into the purchase transaction, neither acts in exercising their commercial nor their self-employed activity. You can opt for warranty cover in the form of repair or replacement which will be provided free of charge (if applicable, in the form of a successor model of the same or higher quality) or in the form of a credit note.

In the case of sensors, floodlights, outdoor and indoor lights, the warranty period for the STEINEL Professional product you have purchased is: **5 years**
for hot-air and hot-melt gluing products: **1 year**

in each case from the date on which the product was purchased. We shall bear the shipping costs but not the transport risks involved in return shipment.

Our warranty cover for entrepreneurs

The provisions below apply to entrepreneurs. Entrepreneur is a natural or legal person or partnership with legal personality who or which, on entering into the purchase transaction, acts in exercising their or its commercial or self-employed activity.

We have the option of providing warranty cover by rectifying deficiencies free of charge, replacing a product free of charge (if applicable, in the form of a successor model of the same or higher quality) or by issuing a credit note.

In the case of sensors, floodlights, outdoor and indoor lights, the warranty period for the STEINEL Professional product you have purchased is: **5 years**
for hot-air and hot-melt gluing products: **1 year**

in each case from the date on which the product was purchased.

Within the scope of warranty cover, we shall not bear your expenses accruing from subsequent fulfillment nor shall we bear your expenses for removing the defective product and installing a replacement product.

Statutory rights accruing from defects, gratuitousness

The warranty cover described here shall be applicable in addition to the statutory rights of warranty – including special consumer protection provisions – and shall not restrict or replace them. Exercising your statutory rights in the event of defects is gratuitous.

Exemptions from the warranty

All replaceable lamps are expressly excluded from this warranty.

In addition to this, the warranty shall not cover:

- any wear resulting from use or any other natural wear of product parts or any deficiencies in the STEINEL Professional product that are attributable to wear caused by use or other natural wear,
- any improper or non-intended use of the product or any failure to observe the operating instructions,
- any unauthorised additions, alterations or other modifications to the product or any deficiencies attributable to the use of accessory, supplementary or replacement parts which are not genuine STEINEL parts,
- any maintenance or care of products that is not carried out in accordance with the operating instructions,
- any attachment or installation that is not in accordance with STEINEL's installation instructions,
- any damage or loss occurring in transit.

Application of German law

The warranty shall be governed by German law excluding the United Nations Convention concerning the International Sale of Goods (CISG).

Making claims

If you wish to make a warranty claim, please send your product complete and carriage paid with the original receipt of purchase, which must show the date of purchase and product designation, either to your retailer or directly to us at STEINEL (UK) Ltd. – 25 Manasty Road, Axis Park, Orton Southgate, GB- Peterborough Cambs PE2 6UP United Kingdom. For this reason, we recommend that you keep your receipt of purchase in a safe place until the warranty period expires.

5 YEAR
MANUFACTURER'S
WARRANTY

STEINEL GmbH

Dieselstraße 80-84

33442 Herzebrock-Clarholz

Tel: +49/5245/448-188

www.steinel.de



Contact

www.steinel.de/contact

