Presence detector

PräsenzLight 180 . .
PräsenzLight 360 . .
PräsenzLight 180-100A . .
PräsenzLight 360-100A . .

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English

Installation manual

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Thank you for choosing a Theben HTS presence detector and putting your trust in us.

1. Safety

DANGER !

Any work on electrical systems must exclusively be carried out by qualified electricians or instructed persons under the direction and supervision of a qualified electrician in accordance with the relevant electrotechnical rules! Any national safety regulations regarding the manipulation of electrical systems must be observed! **The voltage supply must be disconnected prior to installation!**

CAUTION !

The device is maintenance-free. The warranty terminates if the device is opened or entered with any kind of object.

Designated use

The presence detector is solely intended for the purpose contractually specified between the manufacturer and the user. Any other or extended use has to be regarded as not complying with the designated use. The manufacturer is not liable for any resulting damage.

2. Function and performance characteristics

The presence detectors PresenceLight 360 and PresenceLight 180 detect persons within a room on account of slightest movements. Simultaneously, their light sensor measures the brightness in the room and compares it to the pre-set brightness threshold.

PresenceLight 360 is the presence detector of choice for use in small rooms, corridors and wet zones (IP 54).

PresenceLight 180 is the presence detector of choice for use in corridors, transit zones and wet zones (IP 54).

The switching contact A «Light» switches on the lighting in case of presence **and** insufficient brightness, and off in case of absence **or** sufficient brightness.

- Switching contact «Light»: relays 230V
- Adjustable brightness threshold and switch-off time
- Suitable for fluorescent lamps, compact fluorescent lamps, halogen, incandescent lamps and LEDs
- Pulse function for staircase lighting timer

3. Location

3.1 Detection Range PresenceLight 360

The ideal mounting height is 2,0 - 3,0m.

The sensitivity of the detector decreases with increasing mounting height. In order to ensure proper detection of persons, the PresenceLight 360 requires an unobstructed “view” of the persons. Office equipment, plants, suspended lamps etc. may affect the presence detection (shading).

M’height	Seated persons		Walking persons	
2,0m	9 m^2	3,0m x 3,0m	20 m^2	4,5m x 4,5m ± 0,5m
2,5m	16 m^2	4,0m x 4,0m	36 m^2	6,0m x 6,0m ± 0,5m
3,0m	20 m^2	4,5m x 4,5m	49 m^2	7,0m x 7,0m ± 1,0m
3,5m	---	---	64 m^2	8,0m x 8,0m ± 1,0m

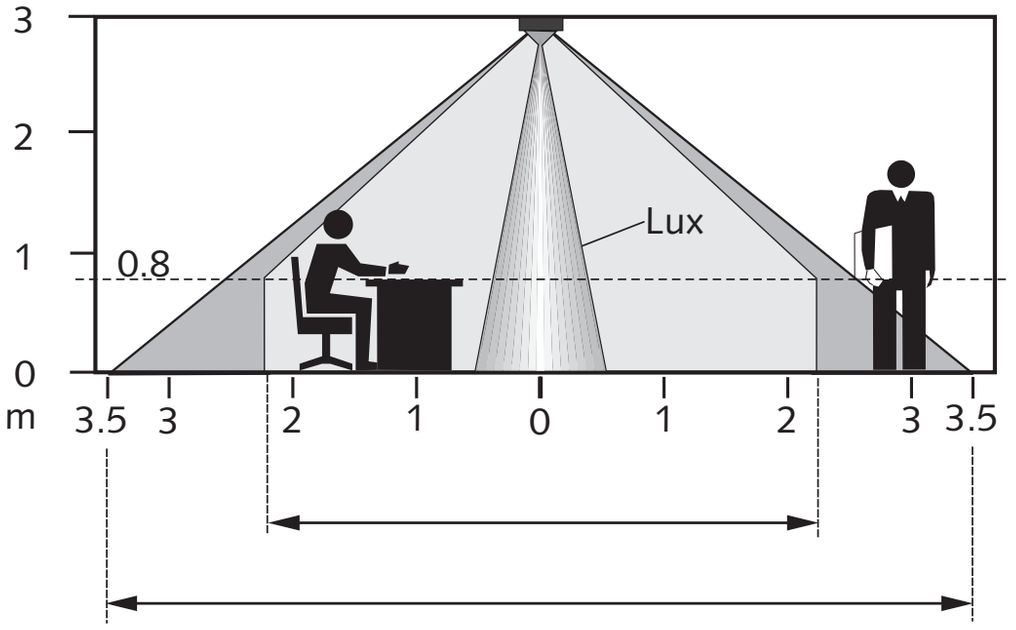
3.2 Detection Range PresenceLight 180

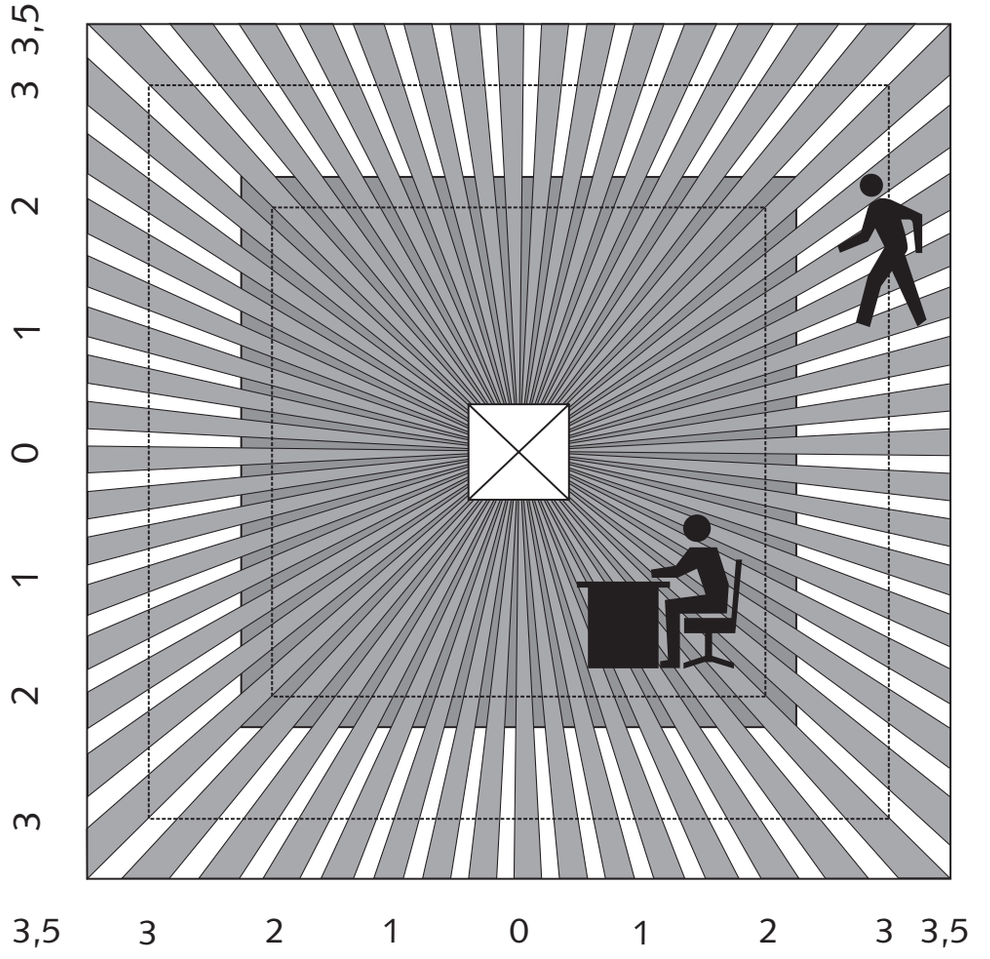
The recommended mounting height is 2,2m. Mounting the device in the height of the switches is not recommended (possible obstacles in the detection range and vandalism).

M’height	Seated persons		Walking persons	
2,2m	25 m^2	7,0m x 3,5m	100 m^2	approx. 8m radial distance

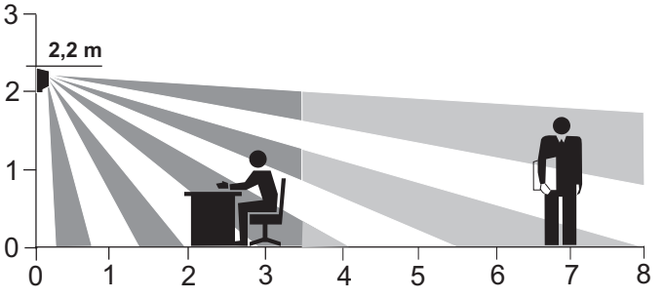
Due to the horizontal orientation of the PresenceLight 180, the detection range is very large. The sensitivity decreases by increasing distance.

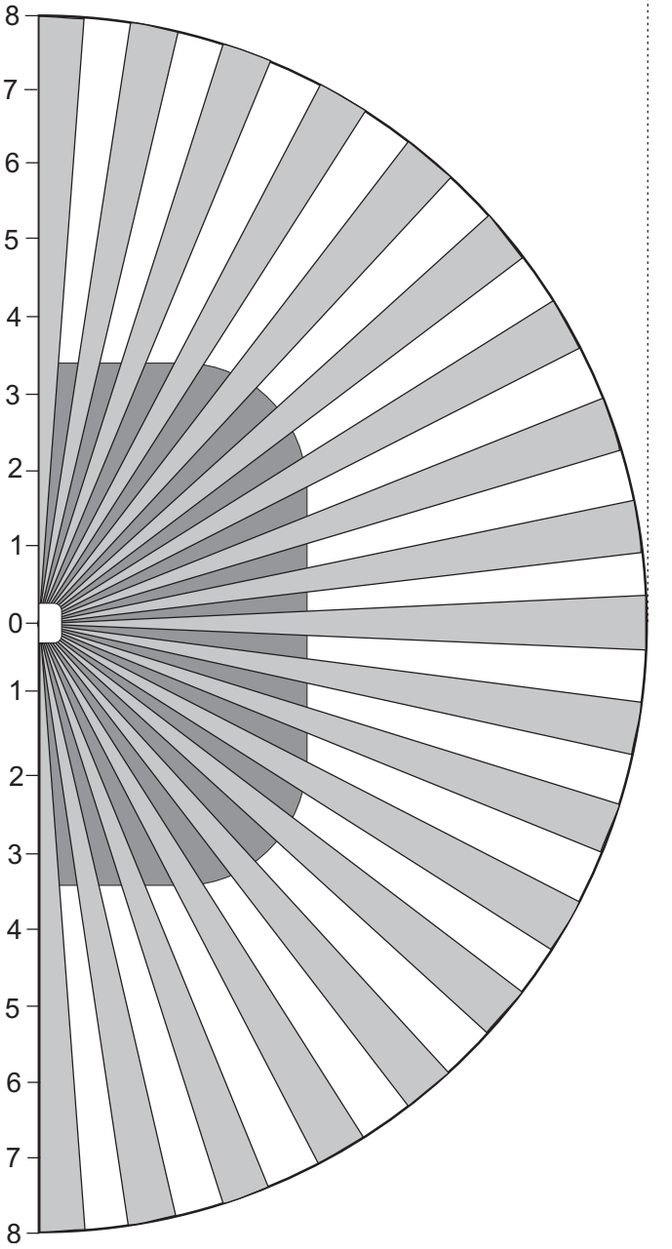
PresenceLight 360:





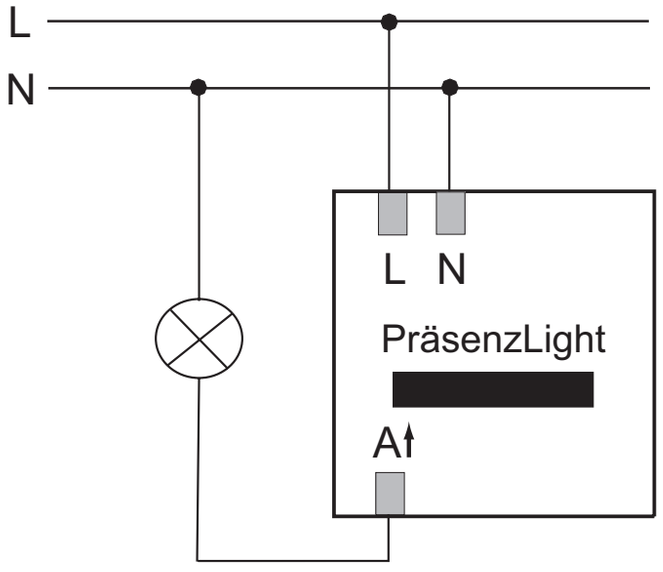
PresenceLight 180:





4. Installation

4.1 Connection



4.2 General fitting

Flush-mounting

The presence detector will be flush mounted into a concealed housing. The enclosed set of seals is to be used for IP 54 installation.

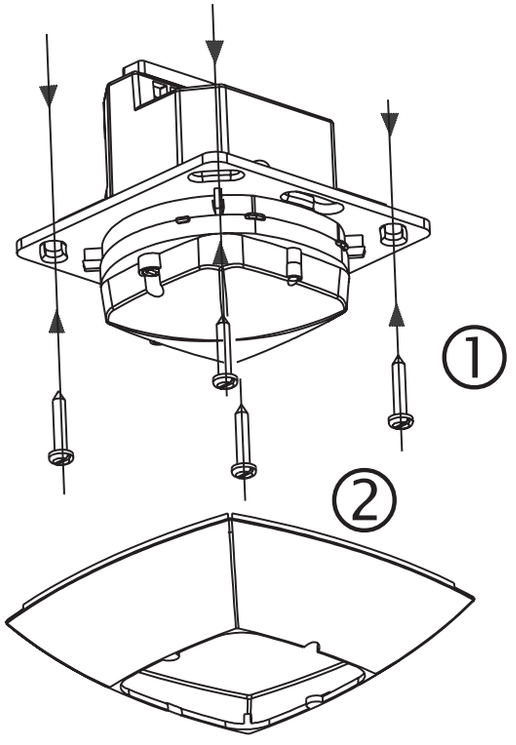
Surface-mounting

A suitable frame for surface mounting is also available. If the surface-mounting seal set is used for surface mounting, the detector will also comply with Protection Class IP 54.

4.3 Protection Class IP 40

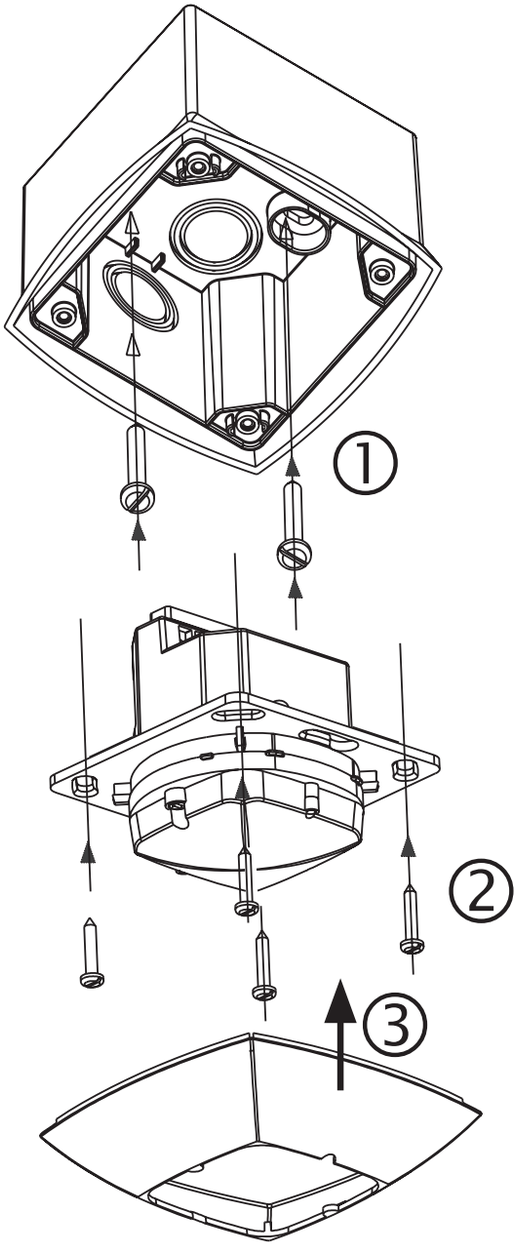
Flush-mounting IP 40

The presence detector will be flush mounted into a concealed housing.



Surface-mounting IP 40

A suitable frame for surface mounting is also available. The surface-mounting frame is prepared for cable feed-through with metric cable glands (M16 or M20).

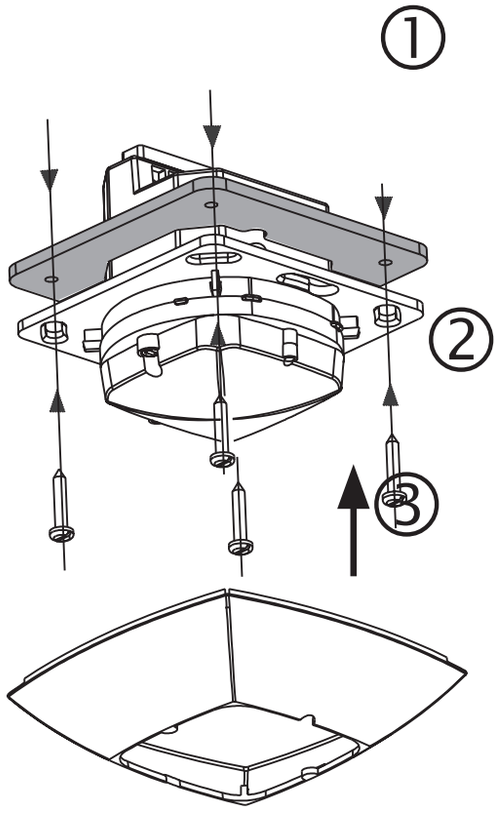


4.4 Protection Class IP 54

Flush-mounting IP 54

To ensure compliance with Protection Class IP 54 when flush mounted, the presence detector must be installed using the enclosed IP 54 seal set for flush mounting as shown in the figure alongside.

If the seal set is not used, only Protection Class IP 40 will be achieved.



Surface-mounting IP 54

Refere to the fitting instruction PresenceLight surface-mounting frame.

IP 54 mounting with gasket set IP 54 only!

5. Start-up

The detectors are supplied ready for operation with a factory setting of recommended standard values. The management remote control SendoPro for starting-up the system is optionally available. With the remote control all potentiometer values can be set from a distance.

5.1 Settings for switching contact «Light»

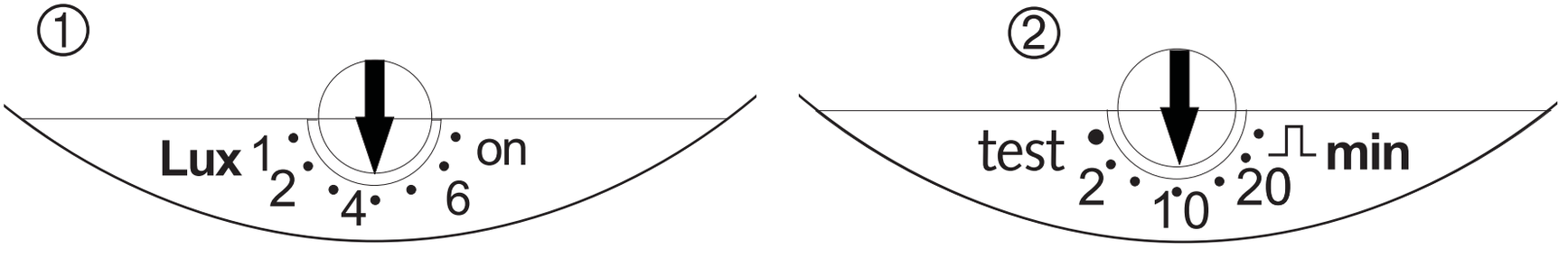
Potentiometer

When changing a brightness switching value or a switch-off delay time with the potentiometer concerned, the presence detector switches to the service phase for a period of 10 min. (see section 5.2).

① **Brightness threshold «LUX»**	Scale
• Transfer zones (no working area)	approx. 2
• Working areas	approx. 4
• Deactivation of brightness measurement	«on»

If setting values for brightness <= 2.5 and switch-off delay time light <= 2 min: faster response to changes in actual brightness.

PresenceLight 360



Depending on the installation location, natural light intensity, furniture, reflection characteristics of the room and the furniture it may be necessary to correct the settings by 1-2 steps on the scale. For ease of setting up, we recommend the management remote control SendoPro.

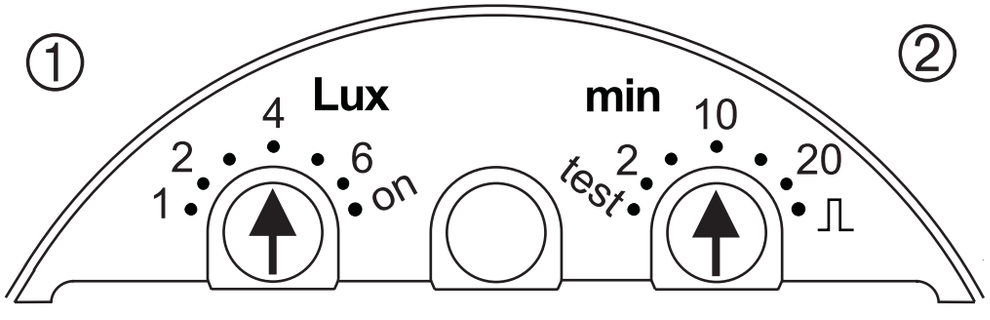
② **Switch-off time delay**

- Transfer zones approx. 5min.
- Working areas approx. 10min.
- In the range between 2 - 15min the switch-off delay time varies according to its self-learning behavior. The set values <= 2 min or >=15 min remain fixed.
- ⎍ «Pulse»: staircase lighting timer control (0.5sec. “on” / 10sec. “off”)

If setting values for switch-off delay time light <= 2 min and brightness <= 2.5: faster response to changes in actual brightness.

The detector always restarts on setting to test operation using the “min” potentiometer, with every adjustment of the «Lux» potentiometer during test operation as well as after completing test operation.

PresenceLight 180



5.2 Behaviour on switching on

Whenever the unit is energised, the detector goes through 3 phases.

1. Start-up phase (30sec)

- LED flashes every second, switching contact is closed (light on)
- In case of absence, the contact opens after 30sec.

2. Service phase (10min)

- The “Light” contact reacts instantaneously on brightness in order to check the brightness threshold.
- If the brightness is insufficient the lighting is switched on (LED on),and if the brightness is sufficient the lighting is switched off (LED off).

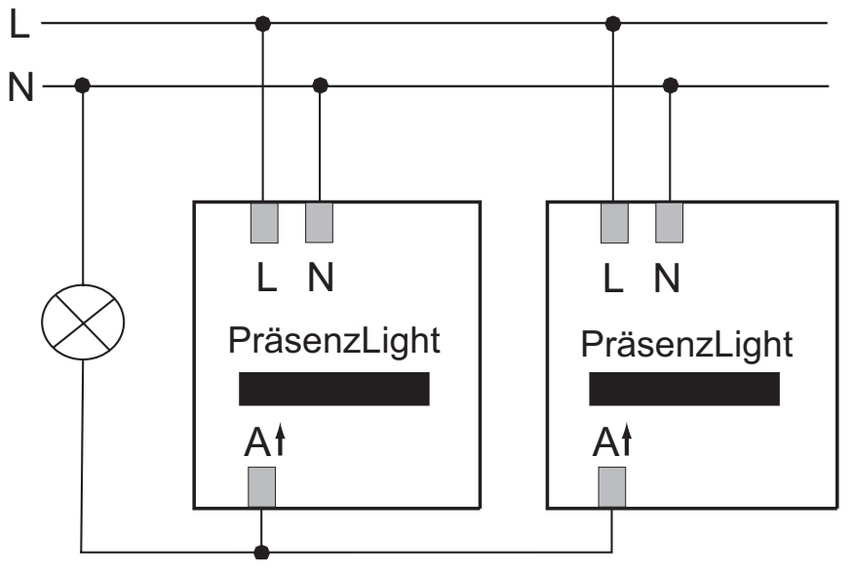
3. Operation

- The detector is ready for operation (LED off).

6. Additional wiring examples

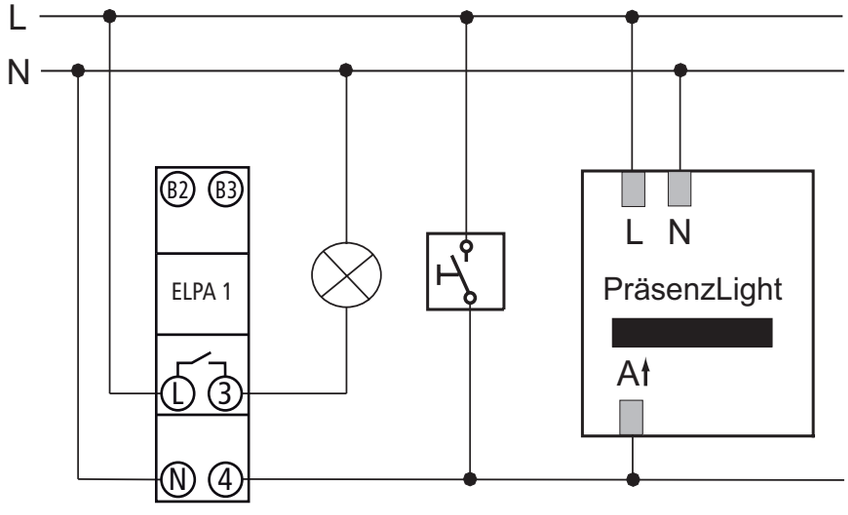
6.1 Parallel circuit operation of multiple detectors

- Directly connect the switching contacts of multiple detectors in parallel.
- Set the brightness threshold and the switch-off delay time on all detectors.
- The total permissible load does not increase.



6.2 Parallel circuit operation with external staircase lighting timer

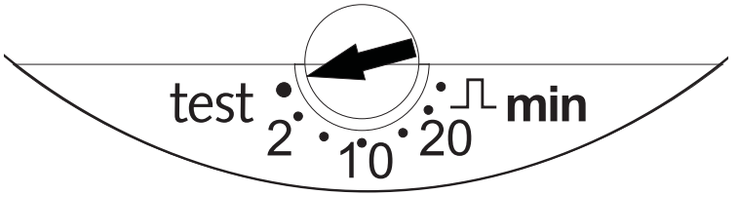
- Directly connect the switching contacts of multiple detectors in parallel.
- Set the switch-off delay on all detectors to «pulse».
- Staircase lighting timer e.g. Theben ELPA 1



7. Test mode

The test mode serves to check the presence detection and the wiring.

7.1 Setting the test mode with potentiometer



- Set potentiometer «min.» to «test».

1. Start-up phase (30sec)

- The switching contact is closed for 30sec. (LED 20s «on», 10s «off»).

2. Test mode

- In case of movement (LED on), the contact closes.
- In case of absence (LED off), contact opens after 10sec.
- The detectors remain permanently in the test mode.

Please note: brightness measurement inactive in test mode.

7.2 Setting the test mode with the remote control

- While setting the test mode with the management remote control SendoPro, the detector jumps the start-up phase and changes directly into test mode.
- Test mode ceases automatically after 10 minutes.The detector performs a reset (see section 5.2).

8. Troubleshooting

Fault	Cause
Lighting does not switch on or switches off in case of presence and darkness	Lux value setting is too low; Person ist outside of detection range; Detection is disturbed by obstacles; Set switch-off delay time setting is too short.
During presence, lighting is on although brightness is sufficient	Lux value setting is too high; Detector is in test mode
Lighting does not switch off or switches on spntaneously in case of absence	Wait until the switch-off delay time has elapsed (self-learning); Disturbing heat sources within the detection range: heaters, incandescent/halogen lamp, moving objects (e.g curtains due to open windows); Load (ballasts, relais) has no interference suppresion
Error blinking (4x per second); Lighting does not switch off	Failure during self test; Device not working!

9. Technical specifications

Presence Detector	PresenceLight 360
Detection range horizontal	360º
Recommended mounting height	2.0m - 3m
Maximum range	6 x 6m (Mh 2.5m) 8 x 8m (Mh 3.5m)
Mixed light measurement Light measurement deactivated	ca. 10 - 1500Lux „on“
Switch-off delay time for light Short pulse	10s - 20min. 0.5s „on“ / 10s „off“

Presence Detector	PresenceLight 180
Detection range horizontal	180º
Recommended mounting height	approx. 1.6m - 2.2m
Maximum range	< 10m
Mixed light measurement Light measurement deactivated	ca. 10 - 1500Lux „on“
Switch-off delay time for light Short pulse	10s - 20min. 0.5s „on“ / 10s „off“

PresenceLight 360, PresenceLight 180	
Switching contact	230V ± 10%, 50Hz
In-line fuse	max. 10A
Max. switching capacity (fluorescent lamps, compact fluorescent lamps, halogen, incandescent lamps, LEDs)	1200W 960VA (cos φ 0,8) 580VA (cos φ 0,5)
Max. nr. of electronic ballasts (T8) *) (A relay or contactor must be connected in case of more powerful devices)	5x (1x80W) 10x (1x58W); 5x(2x58W) 16x (1x36W); 8x(2x36W) 16x (< 36W)
Mounting	
Mounting depth Mounting diameter Mounting plate (integrated)	40mm 50mm 70x70mm
Screw Terminals	max. 2 x 2.5mm²
Size of concealed housing	Size 1, (NIS, PMI)
Ambient temperature	- 20º to 50º C
Degree of protection	IP 20 (Protection rating when fitted IP 40)
Degree of protection through installation with gasket set	IP 54

*) Use of T5-FL: When using T5-FL lamps with a comparable wattage, the same number of electronic ballasts may be connected to the detector's switching contact as for the T8-FL. When using the 80W-FL, the number should be halved in comparison to the 58W-FL.

Article numbers		
PresenceLight 180-100A WH, IP 40, white	IP 40	200 0 051
PresenceLight 180-100A BK, IP 40, black	IP 40	200 0 809
PresenceLight 180-100A SR, IP 40, silver	IP 40	200 0 810
PresenceLight 180, IP 54, white	IP 54	200 0 050
PresenceLight 180 BK, IP 54, black	IP 54	200 0 803
PresenceLight 180 SR, IP 54, silver	IP 54	200 0 804
PresenceLight 360-100A WH, IP 40, white	IP 40	200 0 001
PresenceLight 360-100A BK, IP 40, black	IP 40	200 0 806
PresenceLight 360-100A SR, IP 40, silver	IP 40	200 0 807
PresenceLight 360, IP 54, white	IP 54	200 0 000
PresenceLight 360 BK, IP 54, black	IP 54	200 0 800
PresenceLight 360 SR, IP 54, silver	IP 54	200 0 801

Article numbers	
Surface frame PresenceLight 40WH, IP 40, white	907 0 606
Surface frame PresenceLight 40BK, IP 40, black	907 0 607
Surface frame PresenceLight 40SR, IP 40, silber	907 0 608
Surface frame PresenceLight incl. gasket set IP 54, white	907 0 513
Surface frame PresenceLight BK, incl. gasket set IP 54, black	907 0 634
Surface frame PresenceLight SR, incl. gasket set IP 54, silver	907 0 635
Gasket set IP 54 for flush-mounting spare part	907 0 570
Gasket set IP 54 for surface frame spare part	907 0 520
SendoPro 868-A , management remote control	907 0 675
QuickSet plus , service remote control	907 0 532
clic , user remote control	907 0 515

10.Warranty declaration

Theben HTS presence detectors are manufactured and quality-tested with the utmost care using state-of-the-art technologies. Theben HTS therefore guarantees perfect function, provided the detectors are used as intended. However, should a defect occur, Theben HTS offers the following warranty within the scope of its General Terms and Conditions of Business:

Please bear in mind the following points:

- The warranty period is 24 months, commencing from the manufacturing date.
- The warranty becomes null and void if you or third parties undertake alterations to the units.
- If the presence detector is connected to a software-controlled system, the warranty for this connection is only valid provided the stated interface specification is adhered to.

We undertake to repair or replace as quickly as possible all supplied components which have become defective or unusable as a result of demonstrably bad material, faulty design or defective workmanship up to the expiry of the warranty period.

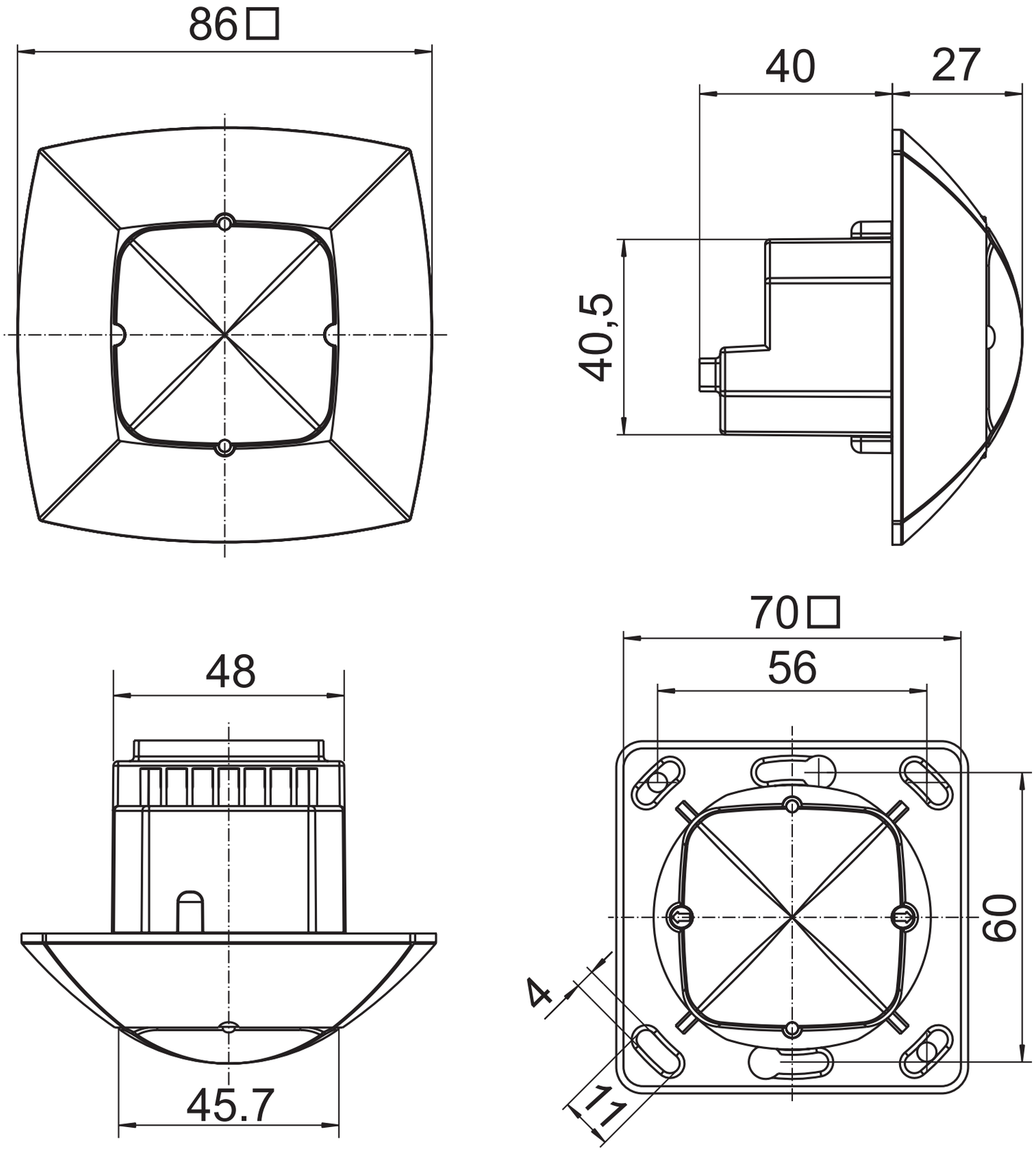
Returns

In the event of a warranty claim please send the unit together with the delivery note and a brief description of the fault to the dealer concerned.

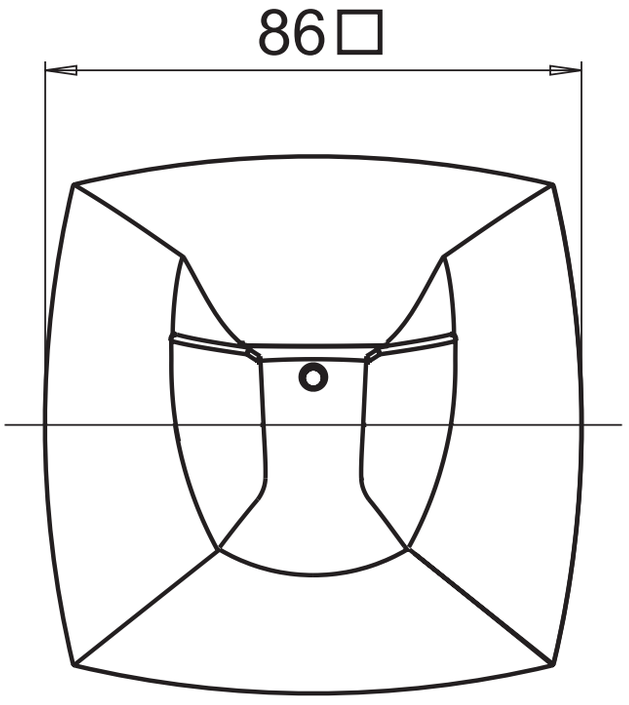
Industrial property rights

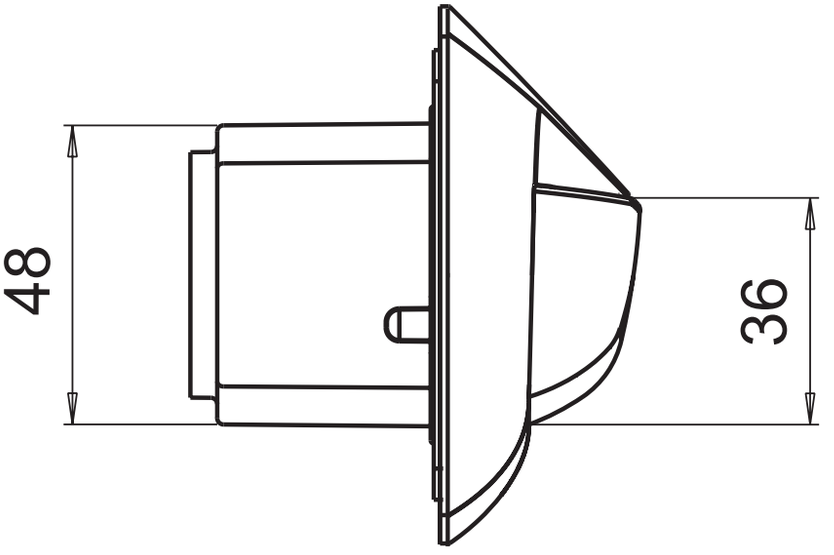
The concept including hardware and software of these units is protected by copyright.

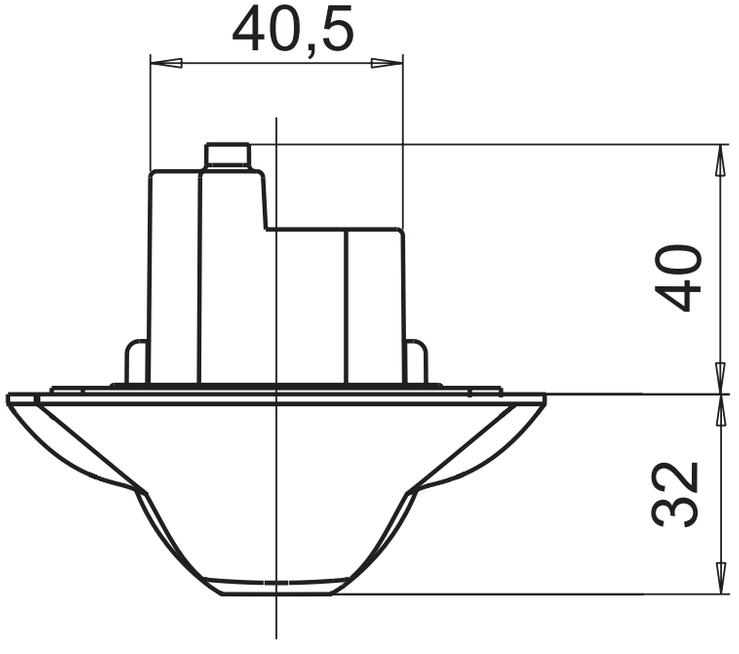
Dimensions PresenceLight 360

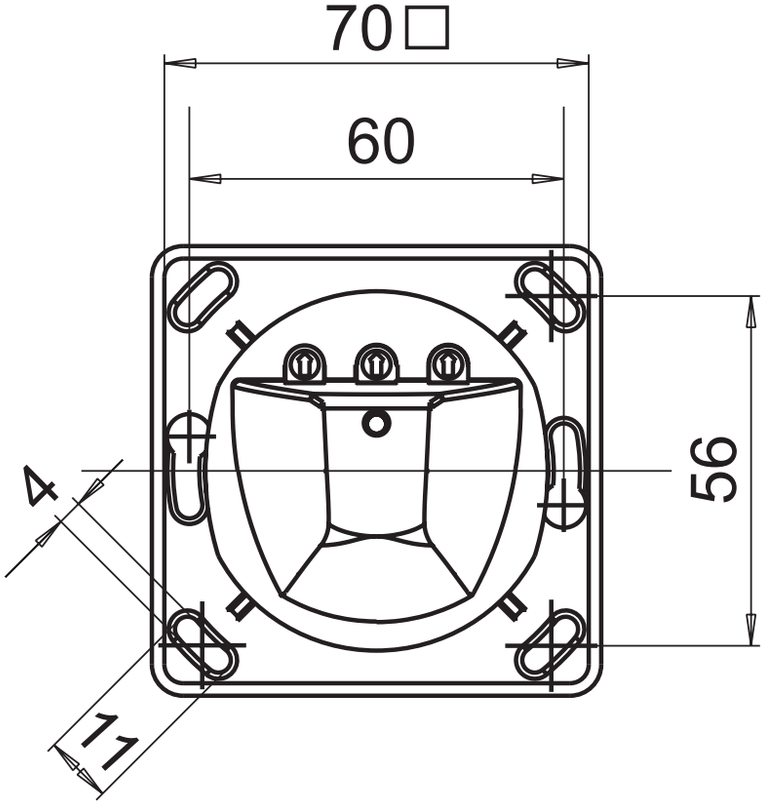


Dimensions PresenceLight 180

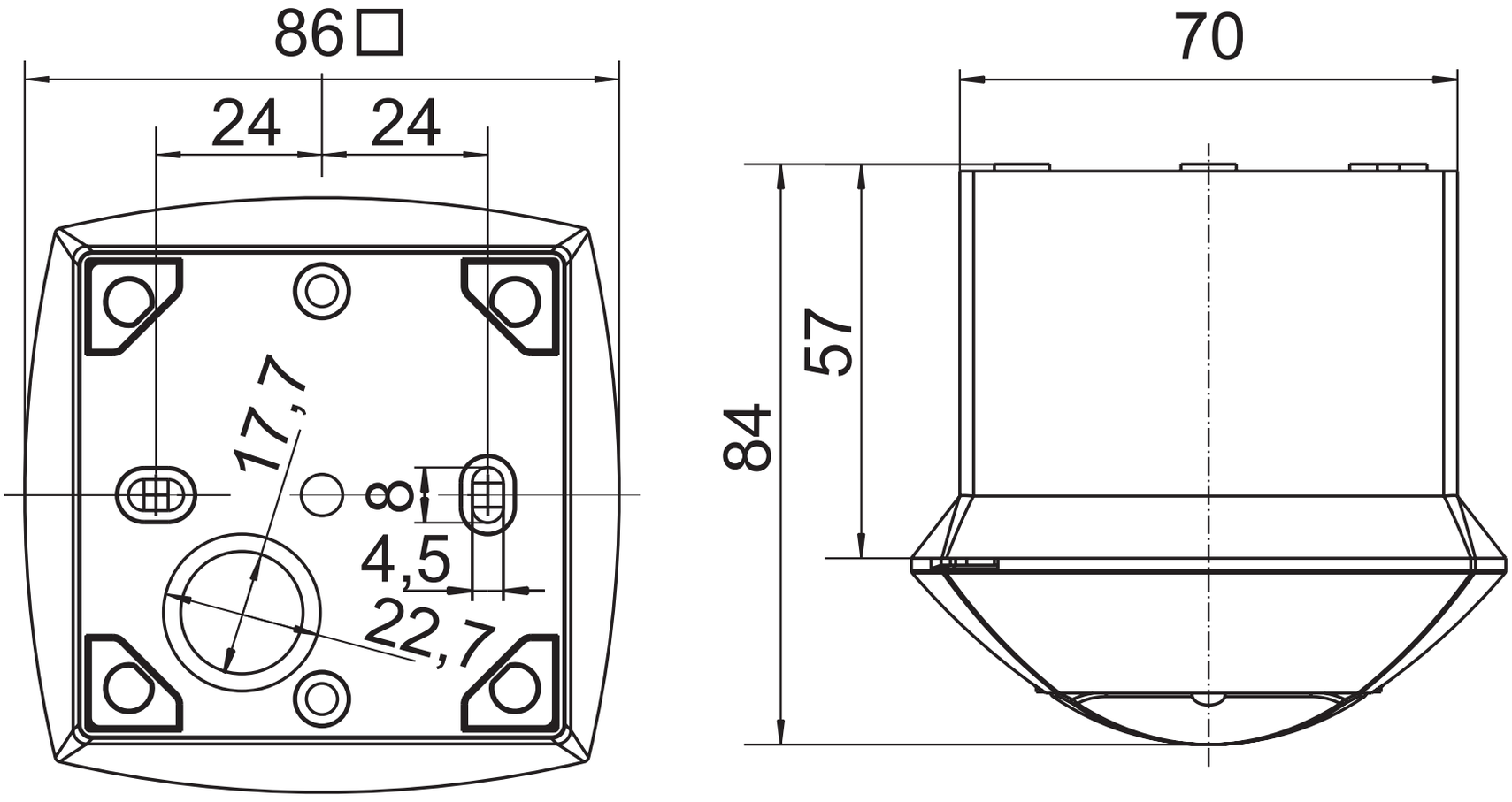








Dimensions surface frame for PresenceLight 360, PresenceLight 180



Declaration of CE conformity

This device conforms to the EMC Directive 2014/30/EU and Directive 2014/35/EU.

Subject to change without prior notice. Errors and omissions excepted.

Theben AG
Hohenbergstrasse 32, DE-72401 Haigerloch
Tel. +49 (0) 74 74 692 - 0
Fax +49 (0) 74 74 692 - 150

Hotline
Tel. +49 (0) 74 74 692 - 369
Fax +49 (0) 74 74 692 - 207
hotline@theben.de

Switzerland
Theben HTS AG
Langhag 7b, CH - 8307 Effretikon
Tel. +41 (0)52 355 17 00
Fax +41 (0)52 355 17 01
www.theben-hts.ch

Please find the contact addresses for additional countries on www.theben.de