



1. General information

- Passive infrared presence detector with 2 lighting channels for ceiling installation (false ceiling), flush mounting in standard box and surface mounting
- Circular detection area 360°, up to Ø 24 m (452 m²)
- Restriction of detection area with cover clips
- 2 mixed light measurements
- Settings via potentiometer or remote control
- Fully or semi-automatic operation, switchable
- Brightness setpoint value adjustable, teach-in function
- Reduction of time delay when present briefly (short-term presence)
- Pulse function for staircase light timer switch
- Configurable time delay
- Configurable detection sensitivity
- Ready for immediate use due to factory presetting
- Test mode for checking function and detection area
- Extension of detection area via master/slave or master/master switching
- **Optional accessories:**
Surface-mount frame 100A WH (9070819)
theSenda S user remote control (9070911) (theSenda S for short), theSenda P service remote control (9070910) (theSenda P for short), theSenda B app remote control (9070985) and the corresponding "theSenda Plug" app (iOS/Android) (theSenda B/app for short)

2. Safety



Assembly and installation should only be carried out by a qualified electrician, somebody who has completed appropriate professional training and has the knowledge and experience necessary to be able to recognise and avoid the potential dangers posed by electricity.



Before installation/disassembly, disconnect the power supply and ensure that the parts are no longer live.



Prior to commissioning and using the product, read and observe all the operating instructions.

The presence detector conforms to EN 60669-2-1 if correctly installed.

3. Proper use

- Presence detector for presence and brightness-dependent lighting control
- Suitable for ceiling installation (false ceilings), flush mounting in standard box or surface mounting in interiors (offices, meeting rooms, classrooms, warehouses, sports halls, garages, etc.)

4. Installation

Installation instructions

As the detector reacts to variations in temperature, avoid the following situations:

- Do not point the presence detector at objects with highly reflective surfaces such as mirrors, etc.
- Do not install the presence detector near heat sources such as heating vents, air conditioners, lamps, etc.
- Do not point the presence detector at objects that move in the wind such as curtains, large plants, etc.
- Pay attention to the direction of motion during the test run.

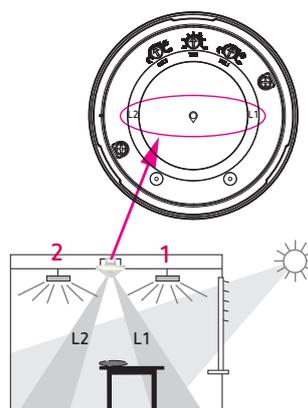
ⓘ Prior to installation, you may need to make settings at the potentiometers.

ⓘ Observe the recommended installation height of 2 – 5 m.

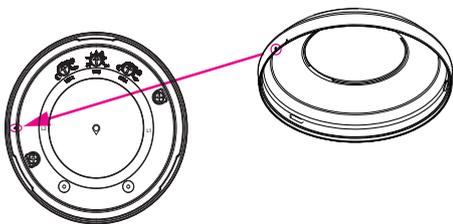
ⓘ Ensure that there are no obstructions as infrared rays cannot pass through solid objects.

ⓘ Light measurement L1 is assigned to lighting channel 1 and light measurement L2 is assigned to lighting channel 2. This must be taken into consideration when installing the detector.

Example: If light measurement L1 is directed towards the window, lighting channel 1 (terminal connection ↑ 1) must also be provided at the window.



- Place the bezel frame on the housing so that the notches line up.
- Turn the cover ring clockwise briefly until it clicks into place.

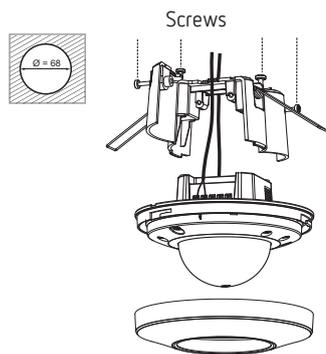
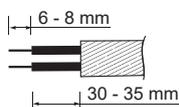


① If the bezel frame is mounted as shown in the figure, the alignment of the light measurement can also be identified when it is installed. The arrow marking shows where light measurement L2 is.

➤ Disconnect the power source prior to installation.

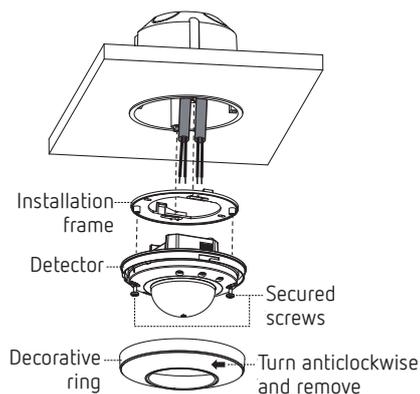
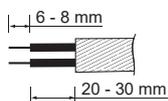
Installation in false ceiling (ceiling installation)

- Create a ceiling opening of approx. \varnothing 68 mm.
- Strip the cable to 6 – 8 mm.
- Assemble and connect the device as shown in the figure.



Flush mounting

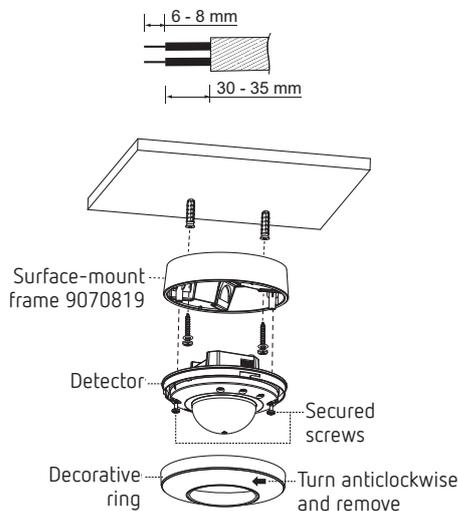
- Remove the ceiling installation box from the detector.
- Strip the cable to 6 – 8 mm.
- Assemble and connect the device as shown in the figure.



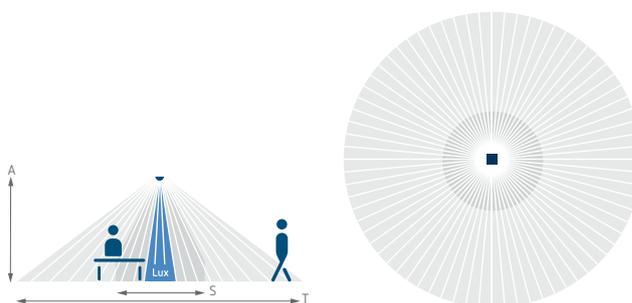
① A box with a minimum depth of 40 mm provides the optimum installation conditions.

Surface mounting

- Strip the cable to 6 – 8 mm.
- Assemble and connect the device as shown in the figure.
- ① IP 54 protection.



Detection area

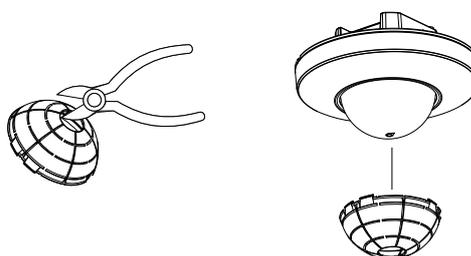


Installation height (A)	Walking persons frontal (r)		Walking persons across (t)		Seated persons (s)	
2.5 m	28 m ²	\varnothing 6 m	452 m ²	\varnothing 24 m	28 m ²	\varnothing 6 m

All figures are guidance values.

Limiting the detection area

- Use the enclosed cover clip to adjust the detector to the desired detection area.
- Remove the required section of the clip using scissors.
- Then place it on the lens.

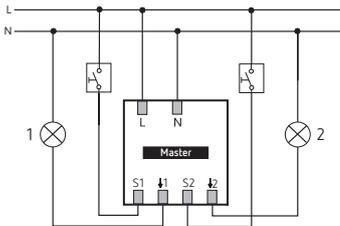


5. Connection

- ⚠ Use the same phase for all detectors and buttons.
- ⚠ Several buttons can be connected to one control input. Illuminated buttons can only be used with a neutral conductor connection.
- ⚠ Secure device with an upstream type B or type C 10 A circuit breaker (EN 60898-1).

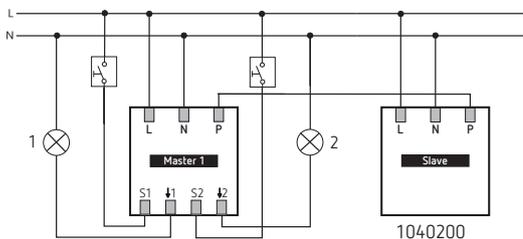
Individual switching

In individual switching, the presence detector detects presence and brightness and controls lighting.



Master/slave parallel switching

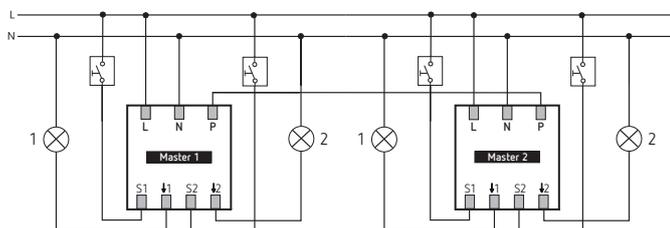
If the detection area covered by a single presence detector is insufficient (in large rooms), then several detectors can be operated in parallel by connecting the P terminals. In the process, presence detection is performed by all detectors together. The master measures the brightness, processes the button information and controls the lighting. Slaves are used as further detectors. They only provide presence information.



- ① Use the same phase for all detectors.
- ① A maximum of 10 devices can be operated in parallel.

Master/master parallel switching

Several masters can be used in a parallel switching configuration. Every master controls its lighting group according to its own brightness measurement. Delay times and brightness setpoint values are set individually on each master. Presence continues to be detected by all detectors.



- ① Use the same phase for all detectors.

- ① A maximum of 10 devices can be operated in parallel.

Button input

The button can be used to manually switch on/off the lighting at any time.

Switching on manually

Pressing the button briefly switches the light on. While movement is detected, the light will stay on for at least 30 min. Afterwards, it will go out if the brightness is sufficient. If no more movements are detected, the light switches off after the set time delay.

Switching off manually

If the light is switched on, it can be switched off by briefly pressing the button. As long as people are present, the lighting remains switched off. If no more movements are detected, the lighting switches on again automatically after the time delay has passed.

Fully or semi-automatic

Lighting control via the presence detector operates fully automatically or semi-automatically. As a "fully automatic device", the lighting is switched on and off automatically (depending on the parameters set). As a "semi-automatic device", the detector has to be activated via a connected button. It is then controlled and switched off depending on movement and brightness. The remote control is used to make the settings.

Switch-on behaviour

When the power supply is switched on or the device is restarted using the remote control, the presence detector runs through two phases that are shown by an LED and the connected lamp:

1. Warm-up phase (1 min)

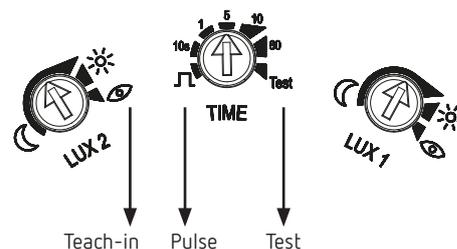
- The red LED flashes and the light switch contact is closed (light on).
- The detector does not respond to button commands and remote control commands.

2. Operation

- The detector is on standby (LED off) and the light switch contact opens when no one is present (light off).

6. Settings via potentiometer

The presence detector has 3 potentiometers (under the cover) for setting the time delay (TIME) and brightness switching value (LUX).



Setting the brightness switching value (LUX 1/LUX 2)

You can set different brightness values with the brightness potentiometer (factory setting 500 lx).



LUX 1

- Set the potentiometer to the desired switch-on brightness 10 – 3000 lux (☀ = light measurement off).

Teach-in function (teaching the brightness switching value)

- At the desired brightness, set the potentiometer to 👁.
- The LED flashes for 20 s.
- Move away from the detector so the light measurement will not be influenced.
- When the LED stops flashing, the currently measured brightness value will be accepted as the new brightness setpoint value.
- Leave the potentiometer at position 👁.

Setting the time delay (TIME)

If the detector detects no further movement, it switches off after the set time delay. If you want to change the preset time (factory setting 10 min):



TIME

- Set the potentiometer to the desired time (e.g. 10 s – 60 min).

Pulse function

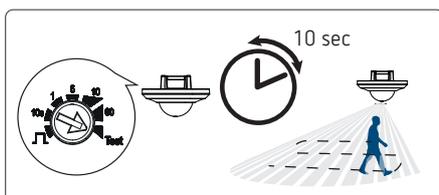
If you wish to use the pulse function (e.g. for a staircase light timer switch):

- Set the potentiometer to ⏏ (0.5 s on, 9.5 s off).

Test detection area (test mode or walking test)

The test mode is used to test the detection area and to restrict it if necessary.

- Set the TIME potentiometer to **test**.
- The presence detector only reacts to movements; brightness measurement is switched off.
- After the detector has detected a movement, it switches the connected light on. At the same time, the red LED lights up briefly each time a movement is detected. If no movement is detected, the light switches off after the time delay of 10 s has passed.



- ① If the walking test is carried out using the slave device, the walking test must also be activated on the master device.
- ① Test mode can also be activated via the theSenda P remote control and the theSenda B/app.

7. Parameters and control commands via remote control

The following parameters can be checked or changed via the remote control for support during start-up as well as servicing:

Parameters

Parameter	theSenda B/ app check	Can be changed by theSenda B/ app	Can be changed by theSenda P
Brightness setpoint value A	X	X	X
Brightness setpoint value B	X	X	X
Room correction factor A	X	X	
Room correction factor B	X	X	
Brightness measurement value A		X	
Brightness measurement value B		X	
Time delay A+B		X	X
Short-term presence A+B		X	
Configuration type A+B		X	X
Detection sensitivity increment 3 (standard)	X	X	X
IR group address A		X	
IR group address B		X	
Scene 1 A		X	
Scene 2 A		X	
Scene 1 B		X	
Scene 2 B		X	
LED motion display		X	

A corresponds to lighting channel 1 and B to lighting channel 2

- ① The parameters are sent to the detector by infrared. Changed parameters are applied and used. The red status LED flashes briefly to confirm that the device has received and understood the infrared commands.

To check the parameters:

- press the button and follow the instructions in the app.

Control commands

The following control commands can be triggered with the remote control:

Control command	Can be triggered by theSenda B/app	Can be triggered by theSenda P	Can be triggered by theSenda S
Teach-in channel A	X		
Teach-in channel B	X		
Teach-in channel A+B	X	X	
Switching light A	X	X	
Switching light B	X	X	
Switching light (all)	X	X	
Presence test	X	X	
Restart	X	X	
Factory settings	X		

Connecting a mobile device to the theSenda B / app remote control

- Open the theSenda Plug app.
- Press the Bluetooth symbol in the app on the top left-hand side.
- Briefly press the Bluetooth button on the theSenda B.
 - LED flashes red, devices are searched for.
- Confirm with OK.
 - The LED lights up red and the Bluetooth icon in the app changes colour from grey to blue.



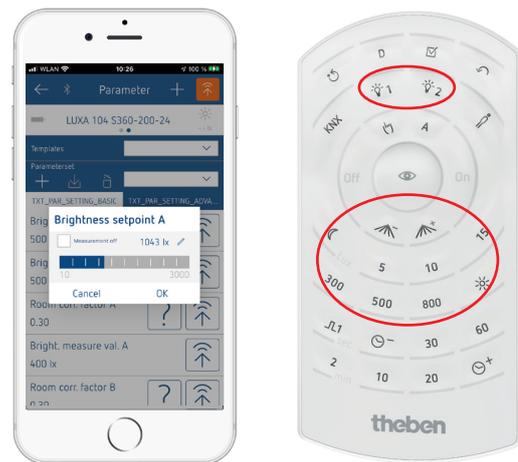
theSenda Plug

8. Parameters and control commands via app

1. Parameters

Brightness setpoint value A / brightness setpoint value B

The brightness setpoint value defines the minimum required brightness. If the prevailing brightness is below the setpoint value, the light is switched on if presence is detected.



theSenda Plug

theSenda P

For brightness setpoint value A, you first have to press the lighting channel 1 button on the theSenda P and the button with the desired lux value; for brightness setpoint value B, you first have to press the lighting channel 2 button and then the button with the desired lux value.

Room correction factor A / room correction factor B

The room correction factor is a measurement for the difference of the brightness measurement on the ceiling and the work area. The brightness value on the ceiling is influenced by the installation location, the incidence of light, the position of the sun, etc.

Brightness measurement value A, brightness measurement value B

When the brightness measurement value is entered, the room correction factor is calculated automatically and the light measurement is adjusted to the conditions inside the room.

- Follow the instructions in the app.

Switch-off delay time A+B

The switch-off delay time applies to all lighting channels.

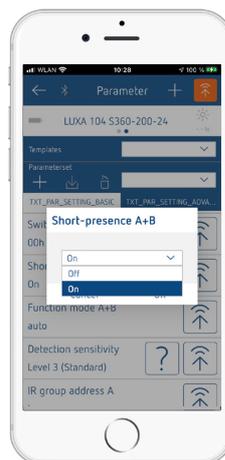


theSenda Plug

theSenda P

Short presence A+B

If someone goes into an unoccupied room only briefly and leaves it within 30 s, then the lighting will be switched off prematurely after 2 min. Short presence can be used for the fully automatic device and semi-automatic device configuration type.



theSenda Plug

Function mode A+B

auto = fully automatic (button A)

The lighting switches on and off automatically (based on presence, absence and brightness)

man = semi-automatic (hand button)

The lighting is always switched on manually via the button. It is switched off by the detector.



theSenda Plug

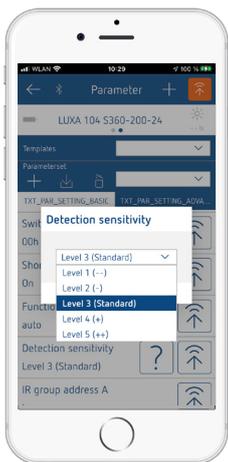


theSenda P

Detection sensitivity

The detector has 5 sensitivity increments (standard: increment 3).

Increment	Sensitivity
1	Very insensitive
2	Insensitive
3	Standard
4	Sensitive
5	Very sensitive



theSenda Plug



theSenda P

IR group address A / IR group address B

A group address can be assigned to each lighting channel. The group addresses in the detector can be programmed with the theSenda B/app or the theSenda S. Group addresses for the remote control:

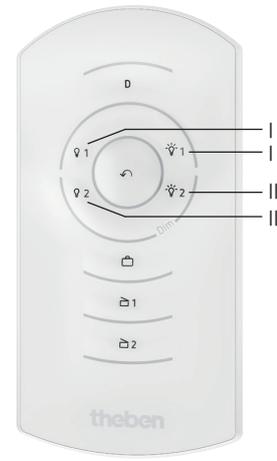
- theSenda S: group address I is assigned to lighting channel 1 and group address II to lighting channel 2.
- theSenda B: here, any group addresses can be assigned to any lighting channel buttons.

A lighting channel can only be switched on or off if the group address of the lighting channel matches the corresponding button on the remote control.

The selection of the group addresses enables the separation of neighbouring detectors or lighting channels controlled by the theSenda S or the theSenda B.



theSenda Plug



theSenda S



theSenda B

Scene 1 A, B / scene 2 A, B

The required switching status (on/off) for each lighting group can be assigned to scene 1 and scene 2 (using the theSenda B/app or the theSenda S).

theSenda S:

Press the $\Rightarrow 1$ button for at least 3 s.	Scene 1 has been saved
Press the $\Rightarrow 2$ button for at least 3 s.	Scene 2 has been saved

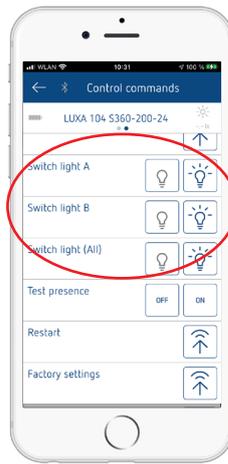
Switching light A / switching light B / switching light (all) (on/off)



theSenda Plug



theSenda S



theSenda Plug



theSenda B

LED display movement

Motion detection is indicated by the LED.



theSenda Plug



theSenda P

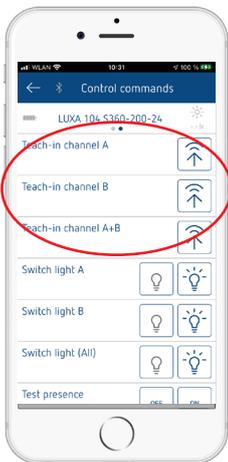


theSenda S

2. Control commands

Teach-in channel A / teach-in channel B / teach-in channel A+B

The detector saves the currently measured brightness value as the new brightness setpoint value.



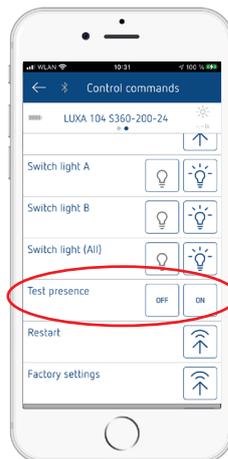
theSenda Plug



theSenda P

Teach-in channel A+B

+



theSenda Plug



theSenda P

"Test Presence" mode

The "Test Presence" mode is used to check the presence detection and wiring.

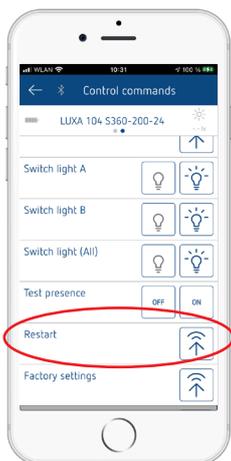
► Select ON in the app.

- The presence detector only reacts to movements; brightness measurement is switched off.
- After the detector has detected a movement, it switches the connected light on. At the same time, the red LED lights up briefly each time a movement is detected. If no movement is detected, the light switches off after the time delay of 10 s has passed.

① The test mode ends after 10 min if it was activated via remote control.

① Teach-in cannot be activated in test mode.

Restart



theSenda Plug



theSenda P

Factory settings



Parameter	LUXA 104
Brightness setpoint value A, brightness setpoint value B	500 lx
Room correction factor A, room correction factor B	0.3
Brightness measurement value A, brightness measurement value B	400 lx
Time delay A+B	10 min
Short-term presence A+B	On
Configuration type A+B	Auto
Detection sensitivity	Increment 3
IR group address A	I
IR group address B	II
Scene 1 A	On
Scene 2 A	Off
Scene 1 B	On
Scene 2 B	Off
LED motion display	Off

Switch-on behaviour

Start-up phase (60 s) after restoration of power

→ The red LED flashes at one second intervals, all switch contacts are closed.

→ The detector does not respond to button commands and remote control commands.

→ When no one is present, all contacts open after approx. 60 s.

Operation

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

LED display

LED	Description
Flashes with 1 Hz	The presence detector is in the start-up phase.
Flickers for 2 s	The command sent from the remote control via infrared was accepted by the presence detector.
Lights up briefly	The command sent from the remote control via infrared was rejected by the presence detector. The command is not valid. Check the selected detector type in the app.
Flashes rapidly	Error flashing; the presence detector has found an error.
Flashes for 20 s	Teach-in via potentiometer is activated.
Lights up or flickers irregularly	The presence detector is in presence test mode or "LED motion display" is activated. The LED detects movements.

Troubleshooting

Fault	Cause
Light does not switch on or off if presence is detected and in darkness	Lux value is set too low; detector set to semi-automatic; light was switched off manually via button or remote control; person not within detection area; obstruction(s) interrupting detection; time delay set too short
Light stays on with detection of presence despite sufficient brightness	Lux value is set too high; light was briefly switched on manually via button or remote control (wait 30 min); detector is in test mode
Light does not switch off, or light switches on spontaneously when no one is present	Thermal sources of interference in the detection area: fan heaters, incandescent lamps/halogen spotlights, moving objects (e.g. curtains hanging in open windows); load (EBs, relays) not cleared
Button does not work	Device still in the start-up phase; illuminated button was used without neutral conductor; button not fed to the master
Light cannot be switched off with the button	Button is not connected to the detector. Check the button wiring.
Error flashing (4 x per second)	Error in self-test; device not functional!

9. Technical data

Operating voltage	230 V AC
Frequency	50 Hz
Standby output	< 0.5 W
Max. switching capacity	10 A (at 230 V AC, cos φ = 1)
Min. switching capacity	10 mA (at 230 V AC)
Switch contact	2 x μ contact 230 V AC (NO contact)
Operating temperature	-15 °C to +45 °C
Brightness setting range	10 – 3000 lx
Duty cycle range	10 s – 60 min
Detection angle	360°
Detection area	Across: Ø 24 m Frontal: Ø 6 m Seated: Ø 6 m
Recommended installation height	2 – 5 m
Incandescent lamp load	2300 W

Halogen lamp load	2300 W
Fluorescent lamps (LLB low-loss ballasts): uncompensated series compensated parallel compensated	1200 VA 1200 VA 1300 W (140 µF)
Fluorescent lamps (EB – electronic ballasts)	1200 W
Compact fluorescent lamps (EB)	300 W
LED lamps < 2 W LED lamps > 2 W	60 W 600 W
Protection rating	IP 40, IP 54 surface mounting
Protection class	II subject to designated installation

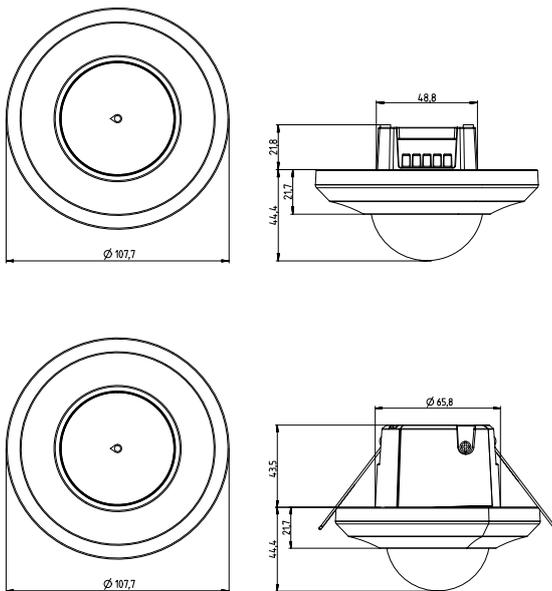
Cleaning and service

- Only use a dry, soft cloth to clean the device surface.
- Do not use any cleaning agents or solvents.

Disposal

- Dispose of device in environmentally sound manner (electronic waste).

Dimensional drawings



10. Contact

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