

**EN** Presence detector

thePiccola P360-100 DE  
2090200



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# 1. Basic safety information



**WARNING**

**Danger of death through electric shock or fire!**

- Installation should only be carried out by a qualified electrician!

- The device conforms with EN 60669-2-1 if correctly installed

## 2. Proper use

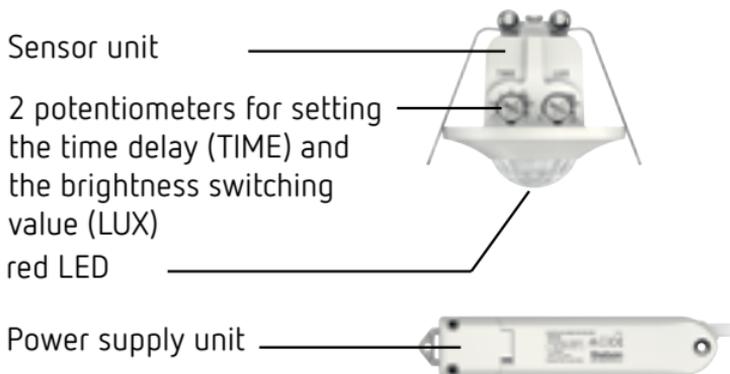
- Presence detector for automatic lighting control dependent on presence and brightness
- Suitable for ceiling installation (false ceilings)
- Suitable for small rooms, corridors, toilets, etc.

## Disposal

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



### 3. Device description

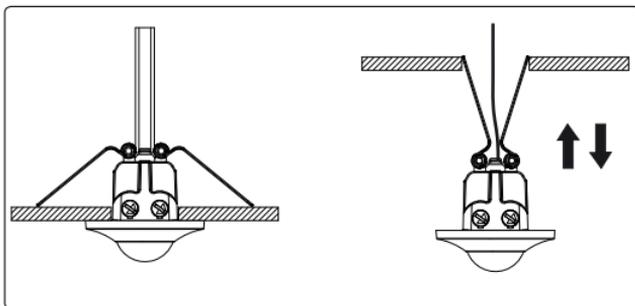
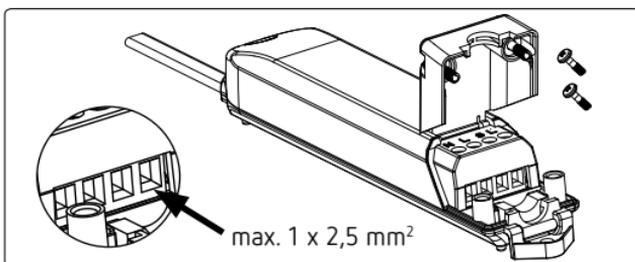
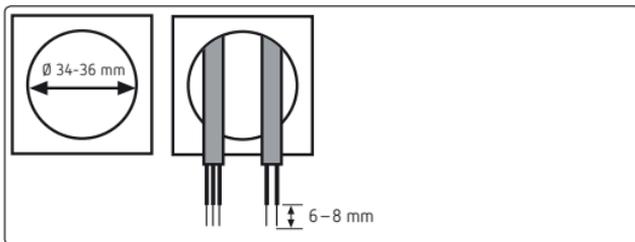


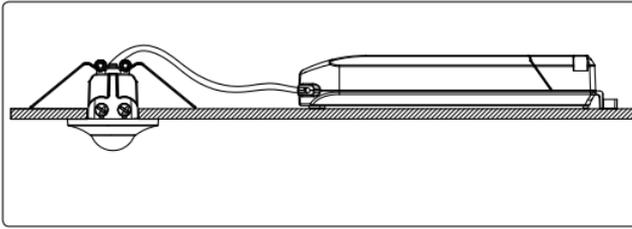
### 4. Installation and connection

#### Installing the presence detector

- ① Installation height: 2–4 m
- ① Cable length: 45 cm
- ① Presence detector requires clear line of sight to people

- Disconnect power source
- Create a ceiling opening of  $\varnothing 34-36$  mm
- Connect power supply unit according to the wiring diagram
- Make settings at the potentiometers
- Push the power supply unit through the ceiling opening and attach the sensor with tensioned springs in the ceiling





## Connecting the presence detector



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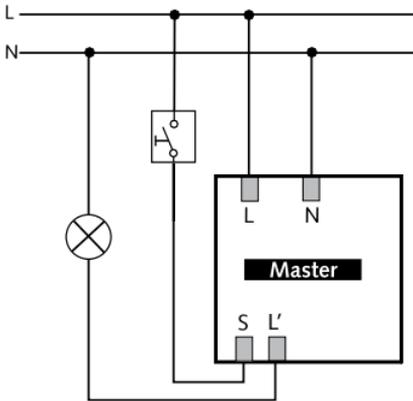
- Disconnect power source
- Ensure device cannot be switched on
- Check absence of voltage
- Earth and bypass
- Cover or shield any adjacent live components

The warm-up phase takes approx. 1 min. The LED is permanently red.



## Individual switching

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

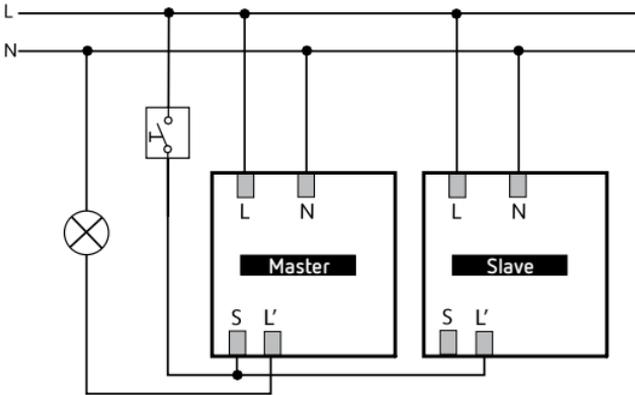


## Parallel switching / Master-Slave

If the detection area covered by a single presence detector is insufficient (in larger rooms), then several detectors can be operated in parallel by connecting the S and L' terminals. Presence detection is performed by all detectors together. The master measures the brightness and controls the lighting. The other detectors (slaves) only provide presence information via the L' terminal.

- At the slave devices set the potentiometer for time delay (TIME) to 30 s and for switching value (LUX) to ☀ or deactivate the brightness measurement with remote control, press button ☀ .

① If the operating voltage remains at the S terminal < 1 sec., the master interprets this as a key signal. Operating voltage > 2 sec. is interpreted as a slave signal and executed correspondingly. For this reason the light does not switch on until 2 sec. after a movement has been detected by the slave device.



## Push button control

The lighting can be manually switched on/off via a button. If the light is switched on manually, it will remain on as long as people are present (plus time delay). Then the light goes into the set automatic mode. If the light is switched off manually, it will remain off as long as people are present (plus time delay). Then the light goes back to automatic mode.

### Fully or semi-automatic device

Lighting control via the presence detector operates fully automatically for increased comfort or semi-automatically for greater energy savings. The lighting switches on and off automatically as „fully automatic device“. In „Semi automatic“

mode, it must be switched on manually and switches off automatically. Settings are entered via remote control.

## Switching behaviour

Every time the power supply is switched on, the presence detector runs through two phases that are shown on an LED and the connected lighting:

### 1. Warm-up phase (1 min)

- The red LED flashes at one second intervals, the switch contact is closed (light on).
- The detector does not react to push button commands and remote control commands.

### 2. Operation

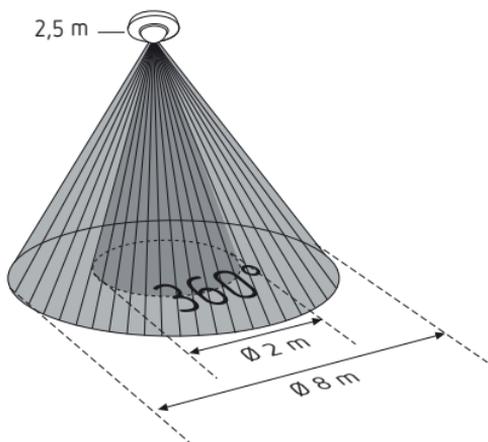
- The detector is ready for operation (LED off), and when no one is present, the light switch contact opens (light off).

## Installation instructions and detection area

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.





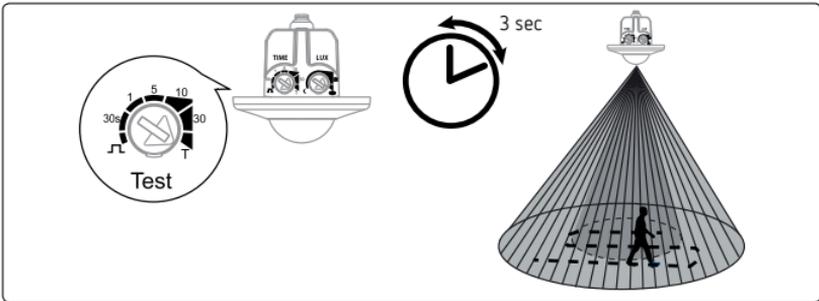
- ① recommended installation height: 2 – 4 m
- ① Transverse detection area: 8 m (transversal to the detector)
- ① Frontal detection area: 2 m (directly approaching the detector)
- ① Detection area sitting: 2 m
- ① Detection angle: 360°

## 5. Walking test

The walking test is used to test the detection area.

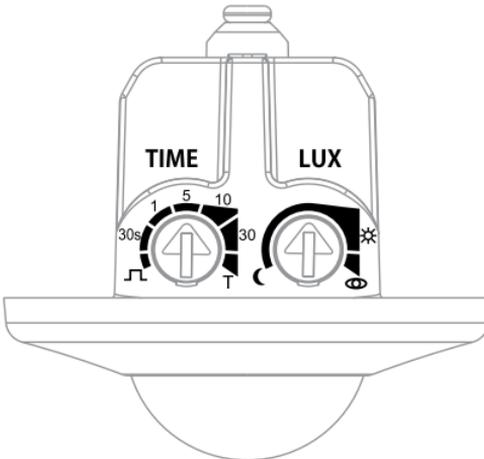
- Set the time delay potentiometer (TIME) to T (Test). The presence detector only reacts to movements, brightness measurement is switched off.
- Walk through the detection area. Every detected movement is indicated by the LED, and the light switch contact closes. When no one is present the light switch contact opens after 3 seconds.
- ① If the walking test is carried out using the slave device, the walking test must also be activated on the master device.

① The walking test can also be activated with the Senda P and SendaPro 868-A remote controls, see chapter 7.



## 6. Setting

The presence detector has 2 potentiometers for setting time delay (TIME) and brightness switching value (LUX).

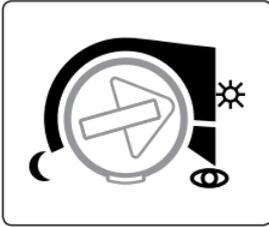


# Setting the brightness switching value (LUX)

You can set different brightness values with the potentiometer for the brightness switching value (LUX).

If you want to change the preset brightness

- ▶ Set the potentiometer to the desired brightness (5 – 1000 lux = ☀).



or want a specific brightness value to be learned using the teach-in function

- ▶ At the desired brightness, set the potentiometer to 👁. The LED flashes for 20 s, afterwards the measured brightness value is accepted as the new brightness switching value.
- ▶ Leave the potentiometer at position 👁.



## Brightness measurement

The presence detector measures the surrounding brightness below the detector. The installation location is the reference point for the lighting level. If the brightness measurement is



deactivated by using the remote control, the switch contact light only switches depending on presence (with SendaPro 868-A: brightness switching value set to «measurement off» via the remote control; with the Senda P: button „Lux On” activated).

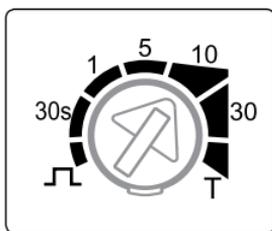
- ① The brightness measurement value is influenced by the installation location, incidence of light, position of the sun, weather conditions, the reflection properties of the room, and the furniture. Therefore, the lux values are guide values.

## Setting the time delay (TIME)

If the presence detector detects no further movement, it switches off after the set time delay.

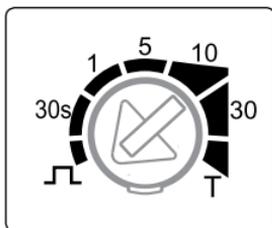
If you want to change the preset time

- Set the potentiometer to the desired time (30 s – 30 min).



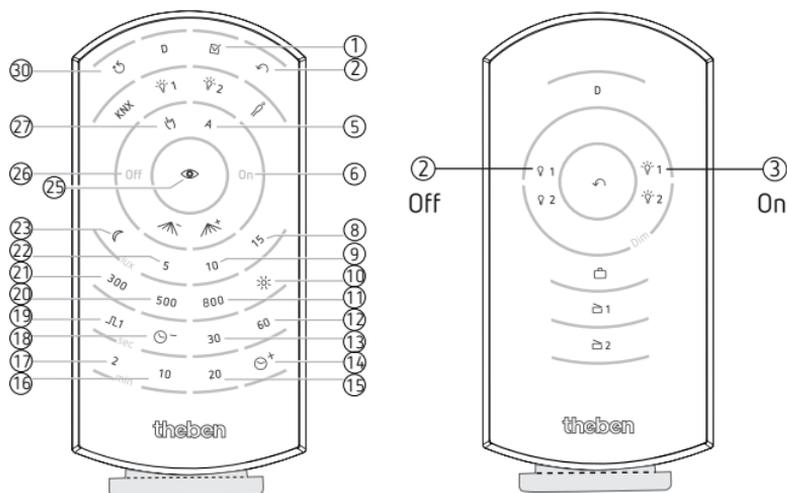
If you want to use the pulse function (e.g. for a staircase light timer switch)

- Set the potentiometer to . Presence detector for „staircase light timer switch” operation is on for 0.5 s and off for 10 s



## 7. Settings with remote control

You can also make the settings with remote controls theSenda S, theSenda P, and Sendo Pro 868-A.



- ① If the command sent from the presence detector is accepted, the red LED flashes briefly twice. If the command is rejected, the red LED flashes briefly once.

### Settings by using theSenda S

theSenda S can only be used to switch the presence detector on or off (③ and ②).

## Settings by using the Senda P

### Setting the teach-in function

- At the desired brightness, press the button  (25). The measured brightness value will be accepted as the new brightness switching value.

### Setting the test function

- Press the ① button. The presence detector directly goes into the test function (see walking test). The test function ends after 10 min.

### Setting fully or semi-automatic device function

**Fully automatic:** The lighting switches automatically on and off (neither on the basis of presence/absence nor on the basis of brightness).

- Press button ⑤.

**Semi automatic:** The lighting must always be switched on manually. Lights are automatically switched off by the presence detector (due to absence or brightness).

- Press button ②7.

### New start of detector

- Press button ③0.

The detector performs a new start (see switch-on behaviour). The brightness switching value (LUX) and time delay (TIME) are reset to the preset values on both potentiometers.

### Back to automatic mode

- Press button ②.



The detector ends the walking test or manual override with the pressing of a button and goes into normal operation mode.

The following parameters or functions functions can be set with the Senda P:

①	Test	Test mode, ends after 10 min
②	Auto	Back to automatic mode
⑤	A	Operation as fully automatic device
⑥	On	Switch on light
⑧	15 lux	Brightness setpoint value 15 lux
⑨	10 lux	Brightness setpoint value 10 lux
⑩	Lux On	Deactivation of Brightness measurement
⑪	800 lux	Brightness setpoint value 800 lux
⑫	60 s	Lighting time delay 60 s
⑬	30 s	Lighting time delay 30 s
⑭	max. Time	max. lighting time delay, 30 min
⑮	20 min	Lighting time delay 20 min
⑯	10 min	Lighting time delay 10 min
⑰	2 min	Lighting time delay 2 min
⑱	min. Time	min. lighting time delay, 10 s
⑲	Pulse 1 s	Pulse function
⑳	500 lux	Brightness setpoint value 500 lux
㉑	300 lux	Brightness setpoint value 300 lux
㉒	5 lux	Brightness setpoint value 5 lux



②3	min. lux	min. brightness setpoint value, 1 lux
②5	Teach-in	Teach in of the brightness setpoint value
②6	Off	Switch off lighting
②7	Manuell	Semi-automatic operation
③0	Reset	Restart of the detector

## Settings with Sendo Pro 868-A



### Parameters

- Brightness switching value: 5 – 1000 lux; measurement off (deactivation of the brightness measurement)
- Time delay: 30 s – 30 min; pulse (control of staircase light timer switch)
- Configuration type: auto (fully automatic device); man (semi-automatic)

### Control commands

- Teach-in (teach in brightness value)
- Switching light (on/off light)
- Presence test (walking test)
- Restart (restart of the detector)

See also operating manual for Sendo Pro 868-A.

## 8. Technical data

Operating voltage	110–240 V AC +10 % / –15 %
Frequency	50–60 Hz
Upstream protection device	10 A
Standby output	< 0.5 W
Switching capacity max.	10 A (at 240 V AC, $\cos \varphi = 1$ )
Switching capacity min.	100 mA/24 V AC/DC
Protection rating	IP 21 (sensor unit), IP 20 (power supply unit) in accordance with EN 60529
Protection class	II
Operating temperature	–20 °C ... +50 °C
Brightness setting range	5 – 1000 lx
Duty cycle range	30 s – 30 min
Detection angle	360°
Detection area	transversal: min. 8 m (+/– 1 m); frontal: min. 2 m (+/– 1 m)
Installation height	2 – 4 m
Max. cable length	50 m
Contact	$\mu$ contact 240 V AC (NO contact)
Incandescent lamp load	2000 W
Halogen lamp load	2000 W



Fluorescent lamps (LLB low-loss ballasts):	
uncompensated	2000 VA
series compensated	2000 VA
parallel compensated	1300 W (140 $\mu$ F)
Fluorescent lamps (EB – Electronic Ballasts)	1200 W
Compact fluorescent lamps (EB)	300 W
LED lamps (< 2 W)	55 W
LED lamps (2 W – 8 W)	180 W
LED lamps (> 8 W)	200 W



## 9. Contact

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