thebenHTS

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EN Presence detector

thePrema S360 DALI UP WH
2070525
thePrema S360 DALI UP GR
2070526

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1. Product characteristics

- Passive infrared presence detector for ceiling installation
- Square detection area 360° (up to 64 m^2) for reliable and easy planning
- Automatic lighting control with constant lighting control or switching operation
- Constant lighting control with standby function
- Lighting dimmable in switching operation with standby function
- Easy to start-up without programming group addresses (DALI Broadcast)
- Mixed light measurement suitable for fluorescent lamps (FL / PL / ESL), halogen / incandescent lamps and LEDs
- Calibration of brightness measurement
- Fully or semi-automatic operation, switchable
- Brightness setpoint value adjustable in lux
- Teach-in function via remote control or button
- Self-learning time delay
- Reduction of time delay when present briefly (short-term presence)
- Detection sensitivity configurable
- Connection option for buttons for manual dimming and switching
- Behaviour upon button operation selectable
- Scene functionality
- Ready for immediate use due to factory presetting
- Exceptionally easy configuration of the energy-saving response with „eco plus" function
- Test mode for checking function and detection area
- Extension of detection area via Master / Slave or Master / Master switching

- Ceiling installation in flush-mounted box
- Surface mounting on ceilings possible with back box (option)
- User remote control „theSenda S" (option)
- Management remote control „SendoPro" (option)
- Installation remote control „theSenda P" (option)

2. Safety

⚠ WARNING

Danger of death through electric shock or fire!

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

- Work on electrical systems may only be carried out by qualified electricians or by instructed persons under the guidance and supervision of a qualified electrician in accordance with the technical regulations applying to electricity!
- Comply with the country-specific safety regulations for work on electrical systems! Ensure absence of voltage in the cable before installation!
- The device is maintenance-free. If the device is opened or penetrated with any object, the guarantee lapses.

3. Proper use

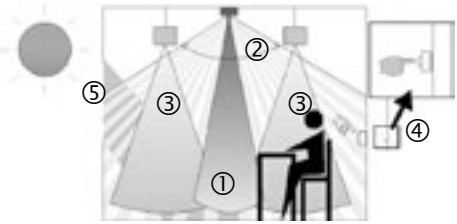
The presence detector is intended for interior installation. The presence detector is exclusively intended for the use as

contractually agreed between the manufacturer and the user. Any other use is considered to be unacceptable. The manufacturer does not accept liability for any resulting damages.

4. Function

The presence detector is primarily used in offices, schools, conference rooms and corridors, as well as in homes, for easy and energy-efficient control of lighting. The lighting is accordingly influenced by switching or constant lighting control.

Function description



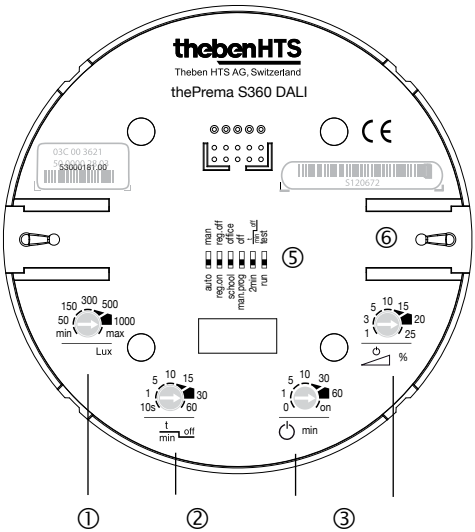
① Mixed light measurement
② Presence detection
③ Artificial light
④ Button for manual lighting control
⑤ Incident daylight

Settings on thePrema S360 DALI

① Brightness setpoint value (lux)
② Lighting time delay
③ Lighting standby time
④ Standby brightness value
⑤ DIP-Switch:

DIP1 Fully automatic device / semi-automatic

DIP2 Constant lighting control: on / off
DIP3 Response to manual override: school / office
DIP4 Adjustment of the brightness setpoint value via button: on / off
DIP5 Short-term presence: on / off
DIP6 Operating mode: normal operation / presence test (walking test)



⑥ Mechanical safety lock

Light channel A

The lighting is controlled by presence and brightness. Artificial lighting is switched on and regulated at a constant brightness level via a DALI interface in the event of too little daylight and when the room is occupied.

The lighting is switched off via the DALI interface if there is sufficient daylight or if the room is unoccupied.

Constant lighting control (DIP2: reg.on)

Constant lighting control compensates variations in daylight with controlled artificial light. The overall brightness will be kept constant at the desired brightness level. A setpoint in lux will be preset during start-up. This value will be applied whenever the light is switched on by the detector. Depending on "school" or "office" configuration type, the presence detector behaves differently after manual dimming via button:

- "School" configuration type for applications in classrooms and meeting rooms:
  - Manual dimming stops constant lighting control.
  - Lighting remains at dimmed level when room is occupied (no brightness influence).
  - Switching off and on returns to standard operation.
- "Office" configuration type for applications in small and large offices:
  - Constant lighting control remains active after manual dimming to new brightness setpoint value.
  - The new brightness setpoint value only applies if the room is occupied.
  - Switching off and on returns to standard operation with the originally set brightness setpoint value.

Switching operation (DIP2: reg.off)

If constant lighting control is switched off, the lighting is controlled depending on presence only. During start-up, the switch-on dimming value is preset. When switching on, the

lighting dims to the set value, regardless of the daylight. By using the button, the intensity of artificial light can be changed for the duration of the presence.

Standby (orientation light)

The standby function acts as an orientation light. After the time delay expires, the lighting is set to the standby brightness (1 - 25 % of the lamp output). The standby time can be set between 0 s and 60 min or permanently. The lighting is switched off if the brightness level in the room exceeds the brightness setpoint value. The lighting automatically returns to the standby brightness if the room brightness falls below the brightness setpoint value. When the room is entered again, the detector returns to the programmed brightness setpoint value, either automatically (fully automatic device) or after the button is operated (semi-automatic device).
In switching operation, the standby function is also available. Instead of the brightness setpoint value, the switch-on dimming value is relevant.

Time delay

The minimum time delay (10 s - 60 min) is adjustable. It adjusts automatically to the user's behaviour and can increase independently to max. 30 minutes or reduce back to the set minimum time. With settings ≤ 2 min or ≥ 30 min, the time delay remains unchanged at the set value. If someone goes into an unoccupied room only briefly and leaves it within 30 seconds, then the light will be switched off prematurely after 2 minutes (short-term presence).

Button control

The lighting can be manually switched or dimmed at any time via a button. A short press of the button switches the light on or off, a longer press of the button dims the lighting up or

down. The dimming direction changes each time the button is pressed.
The light is forced off after a preset time delay if the room was (previously) vacated. If artificial lighting is switched off manually, the lighting remains switched off as long as the room is occupied. The lighting switches again automatically after the time delay has expired.

Adjusting the brightness setpoint value via button

During operation, the brightness setpoint value can be set by using the button. Release or blocking can be set on the DIP switch, see chapter 8. Settings. The setting is done as follows:

- ➤ Dim to the desired setpoint value by using the button
- ➤ Release the button
- ➤ Hold the button for > 15 seconds, until the lighting flashes. (During this time, the lighting dims to maximum or minimum value). New set point value is stored permanently!

During switching operation (DIP2: reg.off), the switch-on dimming value is set instead of the brightness setpoint value.

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". As „semi-automatic device", the lighting must always be switched on manually. The lighting is switched off automatically.

Exceptionally easy configuration of the energy-saving behaviour

By selecting "eco" for optimal switching behaviour or "eco plus" for maximum energy saving, users can adjust the presence detector to their requirements very easily.

5. Detection area

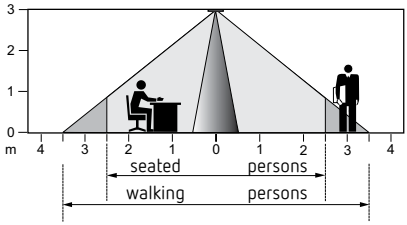
The square detection area of the presence detector guarantees accurate and simple planning. Square detection areas make it possible to cover a whole room with parallel switching. Note that seated and walking persons are detected in differently-sized areas. The recommended installation height is 2.0 m – 3.0 m. The sensitivity of the presence detector decreases with increasing installation height. At an installation height of 3 m or higher, walking motions are necessary and the detection areas of several detectors should overlap in the marginal zones. The detection range is reduced as the temperature increases.

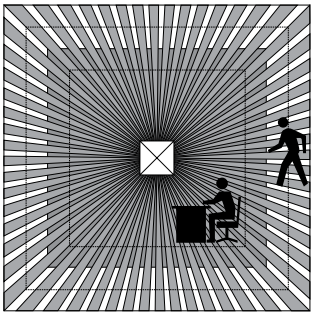
Seated persons:

The presence detector reacts very sensitively to the slightest movements. The details refer to smallest movements at table height (approx. 0.80 m). The detection sensitivity is reduced from an installation height of > 3 m. More pronounced movements are required for clear detection.

Walking persons:

Use of the whole detection area.





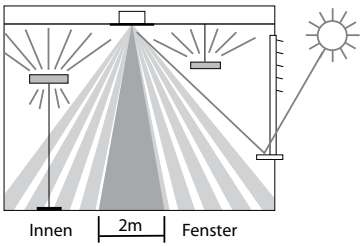
Installation height	seated persons	walking persons
2.0 m	9 m^2 3.0 m x 3.0 m	20 m^2 4.5 m x 4.5 m ± 0.5 m
2.5 m	16 m^2 4.0 m x 4.0 m	36 m^2 6.0 m x 6.0 m ± 0.5 m
3.0 m	25 m^2 5.0 m x 5.0 m	49 m^2 7.0 m x 7.0 m ± 1.0 m
3.5 m	---	64 m^2 8.0 m x 8.0 m ± 1.0 m

Brightness measurement

The presence detector measures artificial light and daylight (opening angle for each approx. ± 30°). The installation location is the reference point for the lighting level. The brightness measurement can be adapted to the conditions in a

room with the room correction factor. The light measurement area maps a rectangle of about 2 x 3.5 m at table height. Direct light influences the light measurement. Avoid placing floor lamps or suspended lighting directly below the detector.

ⓘ With deactivated constant lighting control (reg. off), the brightness measurement is switched off.



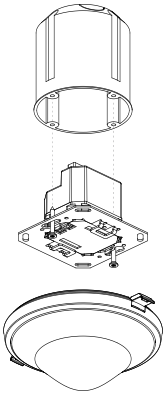
Suitable lamps

The presence detector is designed for the operation of fluorescent lamps, compact fluorescent lamps, halogen / incandescent lamps and LEDs.

6. Installation

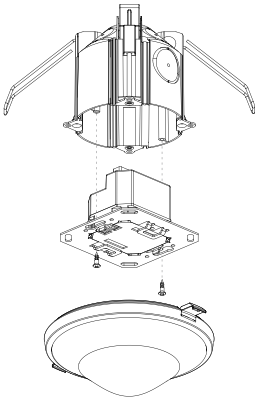
Flush-mounted fitting

The presence detector is flush-mounted using a size 1 standard flush-mounting installation socket.



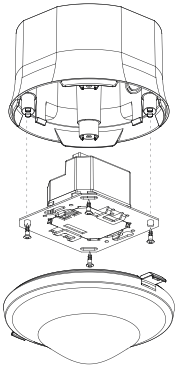
Ceiling installation

A ceiling installation box 73A is available for a simplified ceiling installation of the presence detector (see accessories). This also ensures cord grip and contact protection. The installation diameter is 72 mm (drill diameter 73 mm).



Surface-mounted installation

A back box 110A, protection rating IP40, is available for surface mounted installation (see accessories).

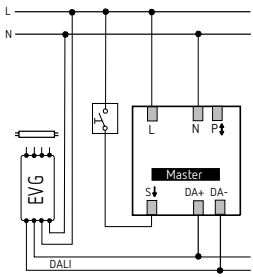


7. Connection

Depending on the application, the presence detectors are designated as Master or Slave. The devices are identical, but have a different wiring.
The presence detectors can be combined as Master in individual switching, Master in parallel switching or Master / Slave parallel switching. Several buttons can be connected to one control input. Illuminated buttons can only be used with neutral conductor connection.

Individual switching

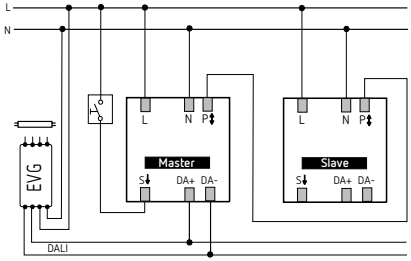
In individual switching, the presence detector, as Master, detects presence and brightness and controls lighting.



Master / Slave parallel switching

If the detection area covered by one presence detector is insufficient (larger rooms), then up to 10 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, operates the

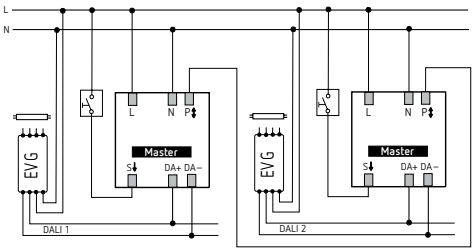
buttons and controls the lighting. All other detectors are used as Slaves. They only provide presence information.



- Light measurement only with the Master
- Parameters are only set on the Master
- Switch up to 10 detectors in parallel
- Use the phase with the same phase for all detectors

Master/Master parallel switching (for several lighting groups)

Several Masters can be used in parallel switching. Each Master controls its lighting group according to its own brightness measurements. Delay times and brightness setpoint values are set individually on each Master. Presence continues to be detected by all detectors.



- One Master with individual brightness measurement per lighting group
- Set potentiometer and DIP switch individually for each Master
- Switch up to 10 detectors in parallel
- Use the phase with the same phase for all detectors

8. Settings

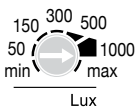
The presence detectors were supplied with basic settings ready for operation. The specifications are guidance values. The "SendoPro 868-A" management remote control or the installation remote control "theSenda P" are optionally available for installation support. They enable remote setting. The "SendoPro 868-A" can be used to query, adjust and optimise parameters. Parameters can only be adjusted with the "theSenda P". In this sense, the remote controls serve as set-up aids. A range of alterable parameters is available for adjustment with the remote control (see chapter "Parameters via remote control").

Settings Channel A light

Potentiometer - Brightness set point value „lux"

- **Operating mode - Constant lighting control (reg.on)**

The required brightness setpoint value can be set via the potentiometer. The setting range is around 15 to 3000 lux. The factory presetting is 300 lux.



Brightness setpoint values from 5 to 3000 lux can be set via the management remote control.
According to standard EN 12464, the following settings are recommended:

- Transit zones (no work area) 150 lux
- Classroom 300 lux
- Work areas (office, meeting room) 500 lux
- Visually-intensive work (laboratory, drawing, etc.) 750 lux

The lux scale applies for rooms with average room design. It is recommended that the room correction factor be adjusted with the management remote control according to the installation location, light incidence, furniture and reflection characteristics of the room.

- **Operating mode - Switching operation (reg.off)**

The required switch-on dimming value can be set via the potentiometer Lux. The setting range is between 1 and 100 %. The factory presetting is at 50 %. On the potentiometer, the scale corresponds to the following values:

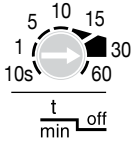
- min = 1 %
- 50 = 10 %
- 150 = 30 %
- 300 = 50 %
- 500 = 70 %
- 1000 = 90 %
- max = 100 %

By using the management remote control, the switch-on dimming value can be set in finer increments from 1 to 100 %.

Potentiometer - Lighting time delay

With the lighting time delay potentiometer, the desired time delay can be set. The setting range is between 10 s and 60 min. The factory presetting is at 10 min.
The following guidance values have proved themselves in practice and are recommended as settings:

- Transit zones (no work area approx. 5 min
- Classroom approx. 10 min
- Work areas (office, living room) approx. 10 min
- When settings are between 2 - 30 mins the time delay varies within this range in a self-learning way.
  Setting values ≤ 2 min or ≥ 30 min remain fixed. Only active with the setting "eco".



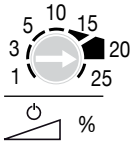
Potentiometer - Standby time

When standby time is activated, the lighting is not switched off after completion of the time delay, but remains dimmed as an orientation light.

The setting range is between 0 and 60 min. In position „0“, the orientation light is switched off, and in position „on“ it is permanently switched on. The factory presetting is at 0 min.

Potentiometer - Standby brightness

With the potentiometer, the desired basic brightness in standby operation can be set. The setting range is between 1 and 25 % of the lamp output. The factory presetting is at 10 %.



By using the management remote control, the standby settings can be set in finer increments.

DIP switch - Fully/semi-automatic device (auto/man)

auto man

Description of the function semi-automatic or fully automatic device, see chapter 4. Function.

DIP switch - Constant lighting control (on/off)

reg.on reg.off

Description of constant lighting control: see chapter 4. Function.

- „reg.on": Constant lighting control switched on, lighting controlled by presence and daylight.
- „reg.off": Switching operation, control switched off, lighting only controlled by presence (light measurement not active).

DIP switch - Response to button operation (school/office)

school  office

Description Response to button operation: see chapter 4. Function.

- „school": Constant lighting control is temporarily interrupted via manual dimming.
- „office": Constant lighting control remains active after manual dimming to new setpoint value.

DIP switch - Adjusting the brightness setpoint value via button (man.prog/off)

man.prog  off

Description: see chapter 4. Function.

- „man.prog": Release setting of brightness setpoint value or switch-on dimming value via button.
- „off": No setting of brightness setpoint value or switch-on dimming value possible via button.

DIP switch - Short-term presence (On/Off)

2min  

Description: Short-term presence: see chapter 4. Function:

- „2 min" short-term presence is switched on
- „  " Short-term presence is switched off.

DIP switch - Presence test mode (run/test)

run  test

Description: see chapter 9. Start-up.

- „run": normal operation.
- „test": test mode for testing presence detection (walking test).

Parameters and control commands via remote control

The following parameters can be queried or changed via the remote control for support during installation as well as servicing:

Parameters	Description	Can be queried SendoPro 868-A	Can be changed SendoPro 868-A	Can be changed theSendaP
Brightness set-point value A	Value range in lux	x	x	x
Room correction factor A	Room correction factor		x	
Brightness actual value A	Query brightness actual value	x		
Switch-on dimming value	Value range in %		x	
Time delay A	Value ranges in seconds/minutes		x	x
Short presence A	Short-term presence: On/Off	x	x	
Energy saving mode	Selection: eco/eco plus	x	x	
Standby time	Value range in seconds/minutes		x	
	Permanently on		x	

Parameters	Description	Can be queried SendoPro 868-A	Can be changed SendoPro 868-A	Can be changed theSenda P
Standby brightness	Value range in %		x	
Configuration type	Selection: auto / man	x	x	x
Detection sensitivity	Value range in Increments		x	x
Group address	Selection: I / II / III / all		x	
Scene 1	Value range in %		x	
Scene 2	Value range in %		x	
LED display motion	Off / On		x	

The parameters are sent to the presence detector with the „SendoPro 868-A" management remote control or with „the-Senda P" installation remote control via infra-red. Changed parameters are immediately applied and used by the detector.

With the „SendoPro 868-A" management remote control, parameters can be queried by sending values level-by-level to the detector. If the sent value is below the set parameter, the LED illuminates briefly. If the sent value is equal or above the set parameter, the LED flickers for 2 s.
The following control commands can be triggered with the remote control:

Control command	Description	Can be triggered SendoPro 868-A	Can be trigge-red the-Senda P
Teach-in chan-nel A	Activation	x	x
Switching light	Lighting group can be switched on and off.	x	x
Presence test	Off / On	x	x

Control command	Description	Can be triggered SendoPro 868-A	Can be trigge-red the-Senda P
Restart	Restart detector	x	x
Local settings	Detector applies the settings of the DIP switch and all potentiometers	x	
Factory settings	Set all parameters and settings to factory setting.	x	
Reset DALI EVGs	All connected DALI EVGs are reset to factory settings	x	

Brightness set point value A

Operating mode - Constant lighting control

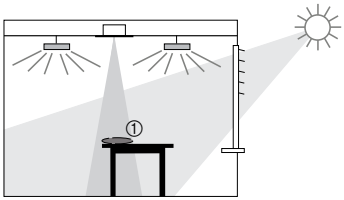
Brightness setpoint A defines the minimum desired brightness. The currently prevailing brightness is measured below the presence detector. If the prevailing brightness is below the setpoint value, the light is switched on when a presence is detected (in configuration type fully automatic device).

Value range

Lux values with „SendoPro 868-A" management remote control In the installation remote control „theSenda P", the following values are available (The currently measured brightness value (lux) can be adopted with the „SendoPro 868-A" management remote control, with the teach-in control command or with the „theSenda P" installation remote control via the teach-in button.) Values outside the permitted range will automatically be set to the appropriate limit value.	5 – 3000 lux 5, 10, 15, 300, 500, 800 lux

Room correction factor A

The room correction factor is a measurement for the difference of the brightness measurement on the ceiling and the work area. The brightness measurement value at the ceiling is influenced by the installation location, incidence of light, position of the sun, weather conditions, the reflection properties of the room, and the furniture.
With the room correction factor, the brightness measurement value of lighting channel A is adjusted to the conditions in the room and in this way can be matched to the lux meter value ① measured at the surface beneath the presence detector.



Room correction factor = Brightness value at the ceiling / brightness value at the working surface

We recommend the following procedure:

- Place the lux meter on the work surface below the sensor and note down the measured lux value.
- Set the room correction factor with management remote control „SendoPro 868-A" to 1.
- Query „brightness actual value A" with the „SendoPro 868-A" management remote control.
- Calculating the room correction factor: „brightness actual value A" / lux value of lux meter.

➢ Enter the „room correction factor A" with the „SendoPro 868-A" management remote control. Values between 0.05 and 2.0 are permitted. Entered values outside the permitted range will automatically be set to the appropriate limit value. The entered room correction factor will be applied immediately.

ⓘ The standard value is 0.3 and is suitable for most applications. Changes are only sensible in strongly deviating situations.

Switch-on dimming value

Operating mode - Switching operation (reg.off)

When switching on, the lighting dims to the set switch-on dimming value, regardless of the daylight.

Value range (with management remote control „SendoPro 868-A")

Switch-on dimming value	1 – 100 %

Time delay A

Value range

Adjustable values with „SendoPro 868-A" management remote control In the „theSenda P" installation remote control, the following values are available	10 s - 60 min 10 s, 30 s, 60 s, 2 min, 10 min, 20 min, 60 min

Short presence A

The time delay of channel A light can be switched off sooner if a room is occupied only for a short time (in configuration type fully automatic device and semi-automatic device).

The time delay is applied according to the set time delay.	Off
If someone enters an unoccupied room and it is only occupied for up to 30 seconds, the light will be switched off prematurely after 2 min.	On

Energy saving mode eco/eco plus

With the „SendoPro 868-A" management remote control, the energy-saving behaviour can be set very simply. The selection of „eco" stands for optimum switching behaviour, while „eco plus" stands for maximum energy saving.

- „eco": The time delay adapts to the user behaviour in a self-learning way. It does not drop below the set value.
- „eco plus": The set time delay remains unchanged (no self-learning effect). Faster response to brightness detection than with „eco".

Standby time/standby brightness

When standby time is activated, the lighting is not switched off after completion of the time delay, but remains dimmed as an orientation light.

Value range (with management remote control „SendoPro 868-A")

Standby time	30 s – 60 min

Standby function (orientation light) is not active	0
Standby function (orientation light) is permanently switched on	on
Standby brightness	1 – 25 %

Configuration type

Fully automatic device: The lighting switches on and off automatically. (due to presence, absence and brightness)	auto
Semi-automatic: Switching on always has to be done manually. Switching off is done automatically by the presence detector. (due to presence or brightness)	man

Detection sensitivity

The detector has 5 sensitivity increments. The basic setting is the middle increment (3).
By selecting the test presence operating mode, the set sensitivity increment is not changed.
Increments 1 to 5 can be selected and sent to the detector with the „SendoPro 868-A" management remote control.
On the „theSenda P" installation remote control, the sensitivity can be increased or decreased by one increment each time the button is pushed.

Increment	Sensitivity
1	very insensitive
2	insensitive
3	Standard
4	sensitive
5	very sensitive

Group address channel A

This parameter is applied when using the „theSenda S" user remote control.
A group address can be assigned to Channel A light. The „SendoPro 868-A" or „theSenda S" can be used to program the group addresses in the detector.

Group address value range

Adjustable values „SendoPro 868-A"	I, II , III , All
Adjustable values „theSenda S"	I, II

Scene 1 / Scene 2

This parameter is applied when using the „theSenda S" user remote control. The desired dimming value for channel A light can be allocated to scene 1 and scene 2.

Value range (with management remote control „SendoPro 868-A")

Adjustable values	0 – 100 %

LED display motion

The motion detection can be displayed via the LED.

Value range (with management remote control „SendoPro 868-A")

No display of motion detection.	Off
The LED is switched on when motion is detected, otherwise switched off.	On

Teach-in channel A

During teach-in, the currently measured brightness value is accepted as brightness setpoint value A. Values outside the permitted range will automatically be set to the appropriate limit value.
The control command teach-in can be adopted with the „SendoPro 868-A" management remote control or with the „theSenda P" installation remote control via the  button.

Factory settings

The presence detector thePrema P360 DALI is supplied with the following parameter values:

Parameters	Value
Brightness setpoint value A	300 lux
Room correction factor A	0.3
Switch-on dimming value	50 %
Time delay A	10 min
Short presence A	On
Energy saving mode	eco
Standby time	0
Standby brightness	10 %
Detection sensitivity	Increment 3
Group address	I
Scene 1	70 %
Scene 2	30 %
LED display motion	Off

Reset DALI EVGs

The connected DALI EVGs are reset to factory settings.

9. Start-up

Switch-on behaviour

Every time the sensor unit is inserted into the power supply unit, or every time the power supply is switched on, the presence detector runs through two phases that are shown by an LED:

1. Start-up phase (30 s)

- The red LED flashes at one second intervals, lighting is switched on at 70 %.
- The detector does not react to button commands and to user remote control „theSenda S".
- The lighting is switched off after 30 seconds when the room is unoccupied.

2. Operation

- In case of presence, the detector immediately dims to the desired setpoint value. The red LED is off.
- The detector is ready for operation.

Presence test

Presence test mode is used to test presence detection and wiring. The presence test mode can be activated directly on the presence detector via DIP switch, or with management remote control „Sendo Pro 868 A", or installation remote control „theSenda P".

Setting presence test mode with DIP switch

➤ Set DIP switch to "Test" (in parallel switching with all detectors).

run  test

1. Start-up phase (30 s)

During 30 s, the lighting is switched on at 100 %, and the red LED indicates the test mode (20 s On, 10 s Off).

2. Operation

- Every movement is indicated by the red LED, and the lighting is switched on at 100 %.
- If there is no motion, the red LED switches off, and the lighting is switched off after 10 s.
- Brightness measurement deactivated, detector does not react to brightness.
- The detector reacts as in configuration type fully automatic device, even if semi-automatic is set.
- Detector stays permanently in the test phase.

Setting the presence test mode via remote control

- The detector goes directly into test mode when the test mode is set via the remote control:
- Every movement is indicated by the red LED, and the lighting is switched on at 100 %.
- If there is no motion, the red LED switches off, and the lighting is switched off after 10 s.
- Brightness measurement deactivated, detector does not react to brightness.
- The detector reacts as in configuration type fully automatic device, even if semi-automatic is set.

- Teach-in cannot be activated in test mode.
- Test mode ends automatically after 10 min. The detector performs a new start (see switch-on behaviour).

10. Technical Data

Operating voltage	230 V AC +10 %/-15 %
Frequency	50 Hz
Upstream protection device:	13 A
Power consumption	approx. 0.5 W
Type of installation	Ceiling installation; flush/ surface mounted or ceiling installation
Installation height	2.0 – 3.5 m
Minimum height	> 1.7 m
Detection area horizontal vertical	360° 120°
Maximum range	5 x 5 m (Mh. 3.0 m)/25 m^2 seated 8 x 8 m (Mh. 3.5 m)/64 m^2 walking
Setting range brightness setpoint value	5 – 3000 lux
Lighting time delay	10 s – 60 min
Lighting standby time	0 s – 60 min/permanently on
Standby brightness	1 – 25 %
Control output lighting	50 mA/DALI interface in accordance with EN 62386:2009 for max. 25 DALI devices
Connection type	Screw terminals
Max. cable cross-section	max. 2 x 2.5 mm^2
Size of flush-mounted box	Size 1, Ø 55 mm (NIS, PMI)
Protection rating	IP 20 (IP 40 installed)
Ambient temperature	0 °C – 50 °C

CE Declaration of Conformity	This device conforms to the safety regulations of the EMC directive 2014/30/EC and of directive 2014/35/EC.

Product overview

Type of installation	Channel	Operating voltage	Colour	Type	Item number
Ceiling installation	Light	230 V AC	White	thePrema S360 DALI WH	2070525
Ceiling installation	Light	230 V AC	Grey	thePrema S360 DALI GR	2070526
Ceiling installation	Light	230 V AC	Special colour in accordance with customer information	thePrema S360 DALI SF	2070528

Troubleshooting

Fault	Cause
Light does not switch on and/or off if presence is detected and in darkness	Lux value is set too low; detector set on semi-automatic; light was switched off manually via button or theSenda S; 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 with „theSenda S" (wait 30 min.); detector is in test mode
Light does not switch off and/or light switches on spontaneously when no one is present	Wait for time delay (self-learning); thermal sources of interference in the detection area: fan heaters, incandescent lamps/halogen spotlights, moving objects (e.g. curtains hanging in open windows)
Button does not function	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 not fed to the detector. Check wiring to the button
Device does not respond	Short circuit or several phases in parallel switching! Disconnect detector from the power supply for 5 min (thermal fuse)
Error flashing (4 x per second)	Error in self-test; Device not properly functional!

Guarantee

Theben HTS presence detectors are manufactured with the utmost care and using state-of-the-art technology and are quality-tested. Theben HTS AG therefore guarantees perfect operation when used correctly. Should a fault occur, Theben HTS AG will fulfil the guarantee within the scope of the general terms and conditions.

Please note in particular:

- that the guarantee period lasts 24 months from the date of manufacture.
- that the guarantee is invalidated if you, or a third party, make changes or undertake repairs to the devices.
- that, insofar as the presence detectors are connected to a software-controlled system, the guarantee for this connection is only valid when the indicated interface specification is complied with.

We undertake to repair or replace as quickly as possible all components of the delivered device that have become defective or unusable through demonstrably poor material, faulty construction or incomplete delivery up to the end of the guarantee period.

Returns

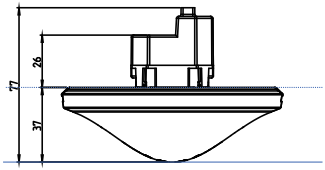
In the event of a guarantee claim, please return the device to the relevant dealer together with the delivery note and a brief description of the fault.

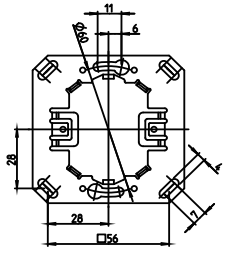
Industrial property rights

The design as well as hardware and software of these devices are protected by copyright.

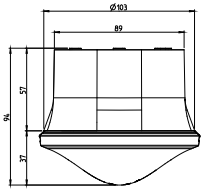
11. Dimensions diagrams

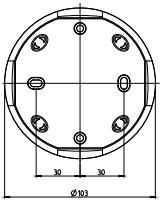
Flush-mounting



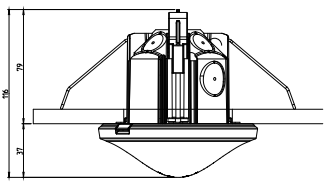


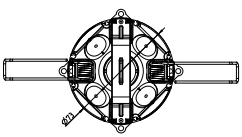
Surface-mounted





Ceiling installation





12. Accessories

Back box (surface mounting) 110A
Item No.: 9070912
Details > www.theben.de

Ceiling installation box 73A
Item No.: 9070917
Details > www.theben.de

SendoPro 868-A
Item No.: 9070675
Details > www.theben.de

theSenda S
Item No.: 9070911
Details > www.theben.de

theSenda P
Item No.: 9070910
Details > www.theben.de

13. Contact

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