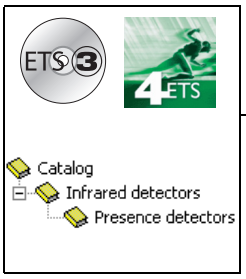
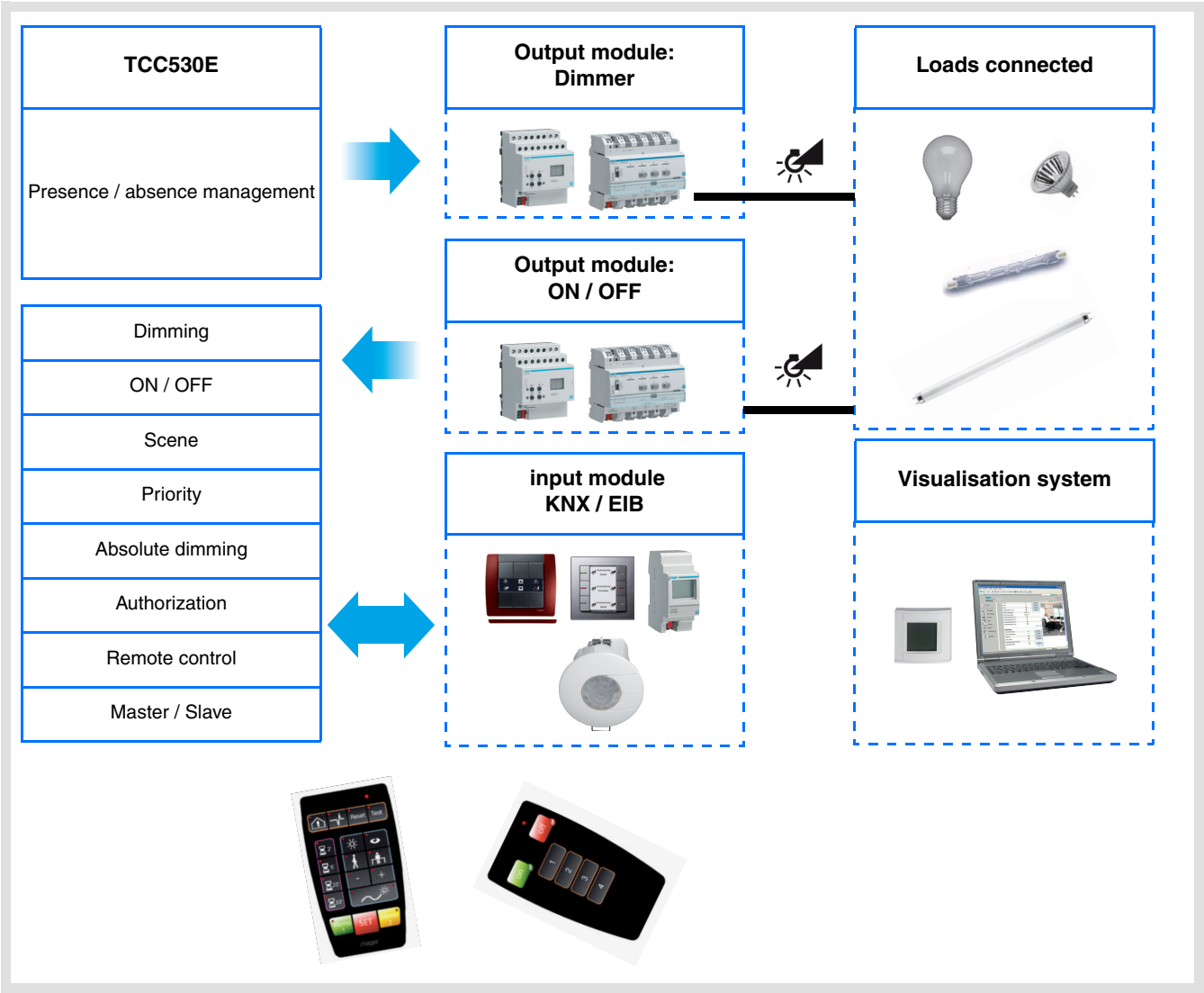


Tebis application software

STCC530E 2-channel presence detector 360°

	Product reference	Description	TP device RF devices
	TCC530E	Bi-zone presence detector	



Summary

1. General overview

The STCC530E application software is used to configure the TCC530E 2 zone lighting regulator presence detector.

The main functions are the following:

Presence detector

The TCC530E 2 zone presence detector with lighting regulation is sensitive to infrared radiation linked to the heat emitted by moving bodies. This makes it possible to detect the presence or absence of people in a room.

2 zone presence detection and lighting regulation channel

The TCC530E presence detector can control KNX variators or KNX / Dali (TX216) gateways for purpose of the lighting regulation function.

Lighting regulation is activated according to presence or absence.4 regulation modes are possible:

- Potentiometer settings,
- Active,
- Not active,
- Regulation linked to the **On / Off** object,
- When the **Potentiometer settings** mode is selected, the detector regulates the level of lighting according to the setpoint value in Lux configured on the product,
- When regulation is active, the detector regulates the lighting level in the room according to a set-point value in Lux in the presence of persons and according to another set-point value in the absence of persons. According to the parameter settings, the regulation set-point can be modified via a remote control input,
- When regulation is inactive, the detector sets the dimming level of the dimmer outputs to a configurable set % value in the presence of persons and to another configurable set value in the absence of persons,
- When the **Régulation linked to the On / Off object** mode is selected, the product switches to permanent regulation when the Datapoint Switch On is received and no longer takes into account the presence or absence of people in the room. The product continues this permanent regulation until the Datapoint switch Off is received.

Lighting regulation of zone 2 is proportional to that of zone 1. A parameter is used to select a proportionality factor.

Time delay (Lighting and regulation functions)

This function starts a delay at each presence detection, it extends the presence period accordingly. The absence period starts at the end of the delay if no new detection is made during the delay. **The delay value can be set by an** ETS **parameter or on the device via a potentiometer.**

ON or OFF authorisation (Lighting and regulation functions)

This function authorizes or inhibits presence detection (by a clock, for example, at certain periods).

Semi-automatic or Automatic mode, override command (Lighting and regulation functions)

In **semi-automatic mode**, **switching to presence** and **switching the light** on is performed by an action on the remote input (KNX button), **switching to absence** is then controlled by the detector according to the detected presences and to the setting of the cut-OFF delay.

In **Automatic mode**, a derogation command allows inverting the status of the output to meet the requirements of certain applications (e.g. projection of slides). In case of OFF authorization, the detector behaves as a simple delayed timer when the **Derogation input** is activated.

Scene

The Scene function allows defining, for a given scene number, regulation set-points or lighting levels to create ambiences or scenarios (presence scenario, absence scenario).

Infra red remote control EEK002 / EE808

The occupancy sensor embeds an infra red receiver. The infra red remote control offers the same functionalities as the KNX push button input (**Remote control** object).

Setup with the installer remote control EEK001 / EE807

Some settings (Power up, semi-automatic / automatic, lux levels, lighting delay) are possible with the installer remote control EEK001 / EE807. It is possible to activate or deactivate the remote commissioning feature via ETS.

Master / Slave function

This function extends the presence detector's detection area by associating several other detectors.

■ Surveillance channel 1 and 2

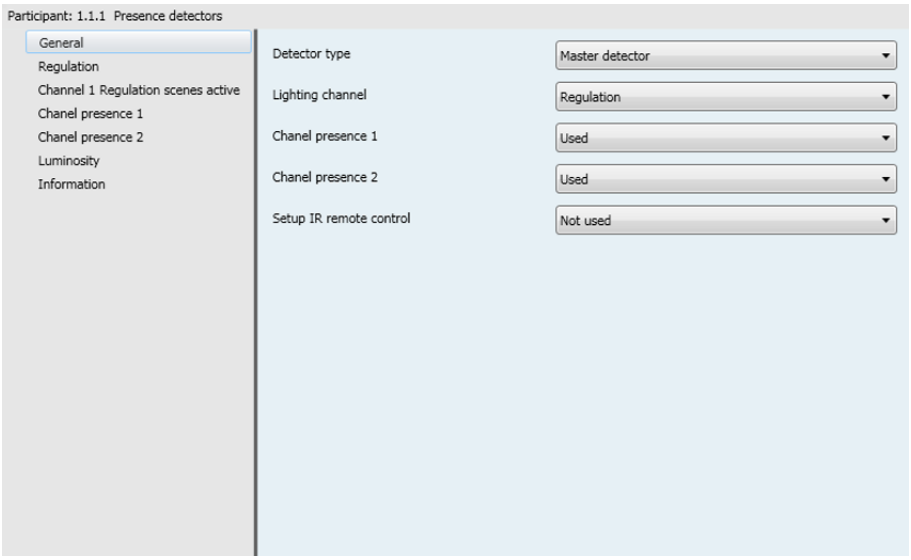
In addition to the lighting regulation channel, the detector can also activate an **ON / OFF** object solely linked to presence or absence. Luminosity is not taken into account for these 2 channels. These channels control the ventilation or heating circuits according to the presence of people in the rooms.

2. Configuration and General parameters

2.1 General parameters

The general parameters setting screen allows setting the basic operation of the TCC530E.

➜ Parameter Setting screen

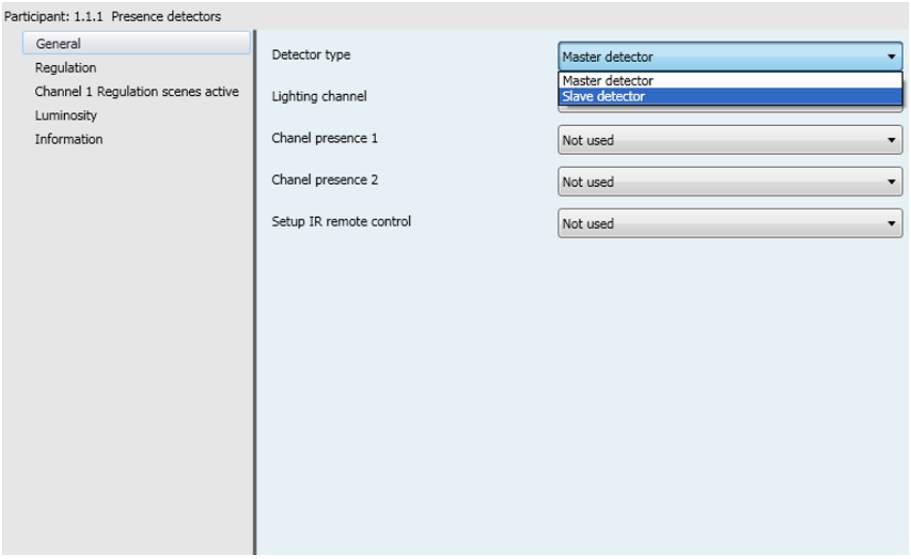


Screen 1

2.2 Detector type

This function extends the detection zone of the presence detector by combining it with one or more other detectors. 2 possibilities are available: the **ETS** parameter (Type of detector) is used to select the desired functionality.

➜ Parameter Setting screen



Screen 2

Master detector

When the master detector receives an **On** object on the **Master** object of one of the slave detectors, it will switch on the light or the regulation according to the luminosity. This also operates for the surveillance channels.

Slave detector

A Slave detector informs the Master detector of the presence or absence of people in the room. It does not take into account the luminosity.

Designation	Description	Value
Detector type	Defines if the detector is a master or a slave.	Master detector Slave detector

2.3 Lighting channel

When detecting a motion, the command for Presence is sent on the bus, taking into account the ambient brightness. If there is no more motion detection, the command for Absence is sent on the bus after the switch-OFF delay has elapsed (if it was set). The **Function** parameter allows selecting the commands or values that are to be sent on the bus in case of Presence or Absence.

Designation	Description	Value
Lighting channel	Defines the commands sent on the bus in case of Presence or Absence.	Regulation ON / OFF

2.4 Presence channels 1 and 2

The TCC530E presence detector has 2 presence channels which are solely controlled according to presence (luminosity is not taken into account).
These parameters define if the surveillance channels 1 and 2 are used or not.

Designation	Description	Value
Surveillance channel*	Used to define if the surveillance channel is used or not.	Not used, Used Default value: Not used

* 1 or 2

2.5 Setup IR remote control

Functional parameters related to the occupancy sensor application can be set via **ETS** parameters or by the aid of the installer remote control EEK001 / EE807.

The use of the remote control can be enabled or disabled. In addition, when the remote control is used, it can be defined if ETS commissioning overwrites the settings.

Designation	Description	Value
IR settings control	The commissioning remote control EE807 / EEK001 can be activated or deactivated.	Used, Not used Default value: Not used
ETS setting overwrite IR remote control data*	This parameter allows overwriting the settings realized by the aid of the infra red remote control EE807 / EEK001.	Used, Not used Default value: Used

* This parameter is only visible if the **Setup IR remote control** parameter has following value : Used.

3. Configuration and parameters of the regulation

3.1 Regulation functionalities

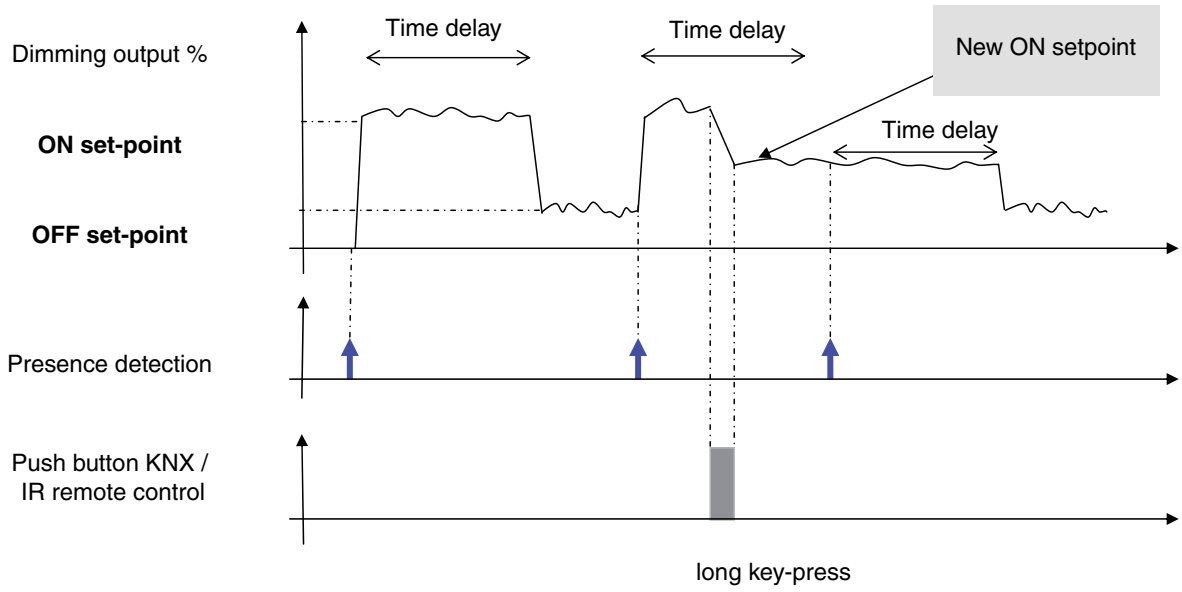
The TCC530E implements 3 functional modes:
- mode 1: regulation active according remote set-point (auto mode),
- mode 2: regulation active according to local set-point,
- mode 3: regulation inactive.

The used mode is defined via the ETS commissioning and the TCC530E local settings.

3.1.1 Mode 1: regulation active according remote set-point (auto mode)

■ Lighting regulation in offices

The installer sets predefined brightness levels (lux) according to standards (for example 400 lux) and the customer can change the brightness level via a KNX button or with the IR remote control (EEK002 / EE808). The detector regulates around an ON setpoint during presence and an OFF setpoint during absence.

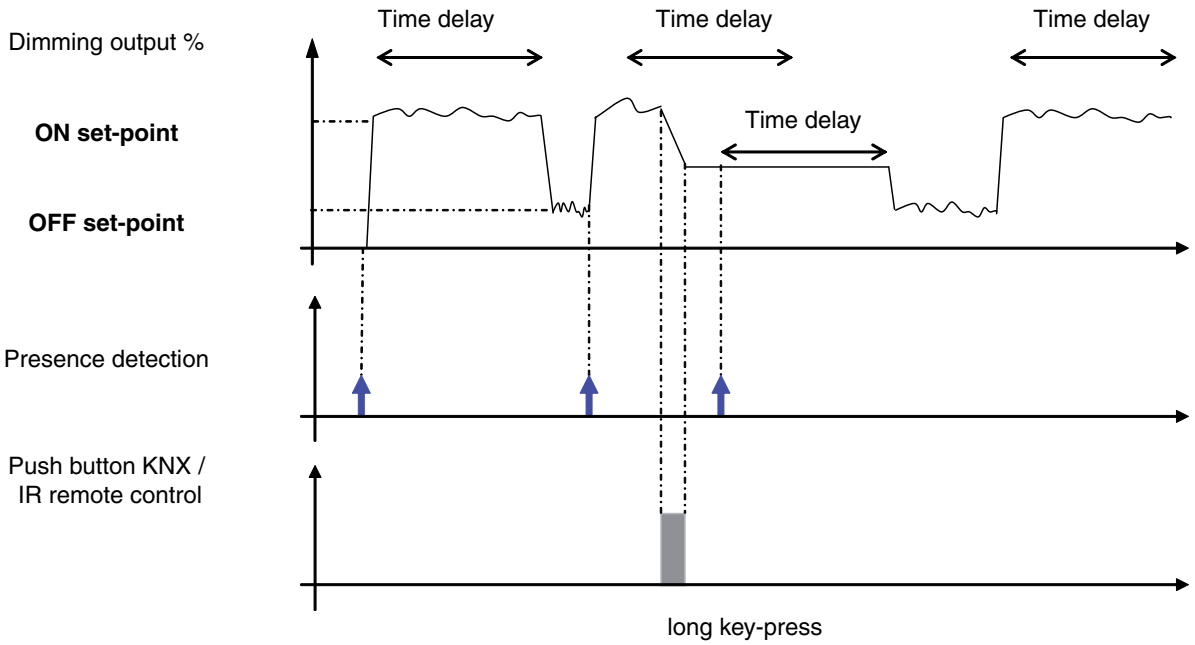


3.1.2 Mode 2 : regulation active according to local set-point

■ Lighting regulation in open plan offices

The installer sets predefined lux levels according to standards (for example 400 lux) ; the customer can temporarily change the output level (in %) via a KNX button or with the **IR remote control** (EEK002 / EE808). The detector switches back to the installer setting after absence.

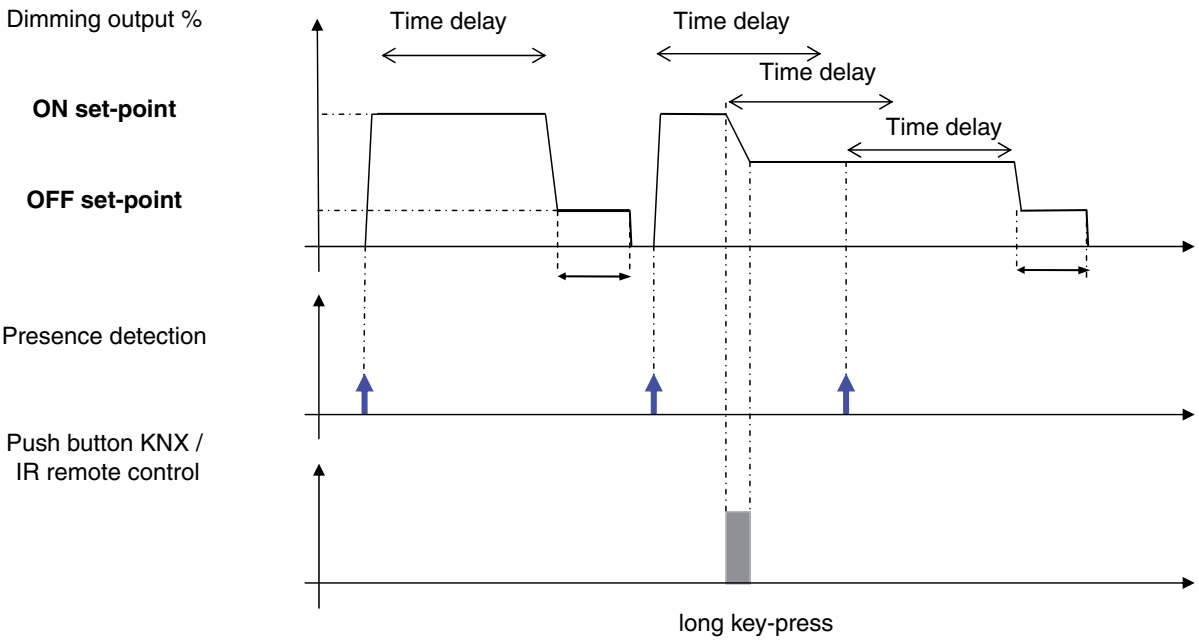
Mode 2 : regulation active according remote set-point



3.1.3 Mode 3:regulation inactive :

■ Installation of detectors in circulation areas

The idea is to give full light when there is somebody and 33 % (for example) when there is nobody and cut after a long absence. The customer can modify the ON level (in %) using a KNX button or with the IR remote control (EEK002 / EE808). The **OFF level** is maintained during the **OFF level time delay** (T OFF). It is completely cut OFF after this time delay.



3.1.4 Bi zone regulation

The TCC530E presence detector can regulate the light in a second zone for which the luminosity will be defined using a proportional factor linked to the luminosity measured in zone 1. This factor can be defined between -50% and +50%. When zone 1 is at 100%, zone 2 will also be at 100%, whatever the defined factor may be.

3.2 Detector objects list for the regulation features

The lighting regulator output is updated according to the regulation process using the **% dimming output 1**and **% dimming output 2** objects (**1 byte** Object). Moreover, the **ON / OFF output** object is emited when a presence is detected and the lumniosity is below the defined threshold.

The object **Dimming** is used to modify the set-point (**4 bits object**), like a dimmer control, where the object **Absolute dimming** (1 byte) permits to change the absolute dimming value (when used as in the regulation inactive mode).

The **Priority** object (2 bits) allows forcing the regulator output, whereas the object **Scene number** is used to recall pre-defined light scenes. If the **Scene x** parameter = concerned.

the Authorisation object is used to activate or deactivate the detector with a 1-bit object if the **Authorisation** parameter is used.

The **Remote control** object is used to toggle the presence detector mode from presence to absence (and vice versa).

The **Master** object connects the detector with another Slave detector. The master uses the information from the Slave detector as detection information.

Nombre	Nom	Fonction d'objet	W	T
0	Regulation channel	Dimming	W	-
1	Regulation channel	ON / OFF	W	-
2	Regulation channel	Priority	W	-
3	Regulation channel	Scene number	W	-
4	Regulation channel	Info ON / OFF	W	-
5	Regulation channel	Output 1 dimming %	-	T
12	Chanel presence 1	Info ON / OFF	W	-
13	Chanel presence 1	ON / OFF	-	T
18	Chanel presence 2	Info ON / OFF	W	-
19	Chanel presence 2	ON / OFF	-	T
24	Luminosity	Luminosity	-	T
25	Regulation channel	Output ON / OFF	-	T
26	Regulation channel	Output 2 dimming %	-	T
27	Regulation channel	Absolute dimming	W	-
28	Authorization	Authorization	W	-
29	Regulation channel	Remote control	W	-
31	Master	Master	W	-
32	Chanel presence 1	Surveillance sensitivity	W	-
33	Chanel presence 2	Surveillance sensitivity	W	-

➜ Parameter Setting screen

Screen 3

4. Regulation Channel Configuration

4.1 Regulation

The regulation type can be defined locally by the aid of the potentiometers or via ETS commissioning.

4 functional modes are available:
- Potentiometer settings (local settings),
- Active,
- Not active,
- Regulation linked to the **On / Off** object.

Regulation can be active (regulation of the dimming levels of the outputs according to the brightness) or inactive (fixed dimming levels). The regulation type and the settings can be defined locally on the device via potentiometers or by ETS. Regulation can be linked to the **ON/OFF** object. This allows the product to be switched over to permanent regulation when the **ON** object is received. The product remains in permanent regulation until the **OFF** object is received.

4.2 Function Regulation active

The regulation is active in automatic mode after detection. The **% dimming output 1**, **% dimming output 2** and **On / Off output** are controlled during the time delay (set by the potentiometer or via an **ETS** parameter). The regulation setpoint during occupation is defined by the **ON ETS setpoint** parameter. At the end of this time delay, the output uses the OFF setpoint (defined via ETS) to regulate the lighting.

The ON setpoint can be modified using a KNX pushbutton (**Dimming** object) or with the EEK002 / EE808 infrared remote control (press the ON button to increase and OFF to decrease).

The **ON/OFF** object is used to activate the detector when the detector is authorised. When it receives a 1, the detector regulates around the ON setpoint and launches the lighting timer (time delay)whereas with a 0 the OFF setpoint will be applied. This command is ignored when a priority is running (Priority setpoint) or if an authorisation is OFF.

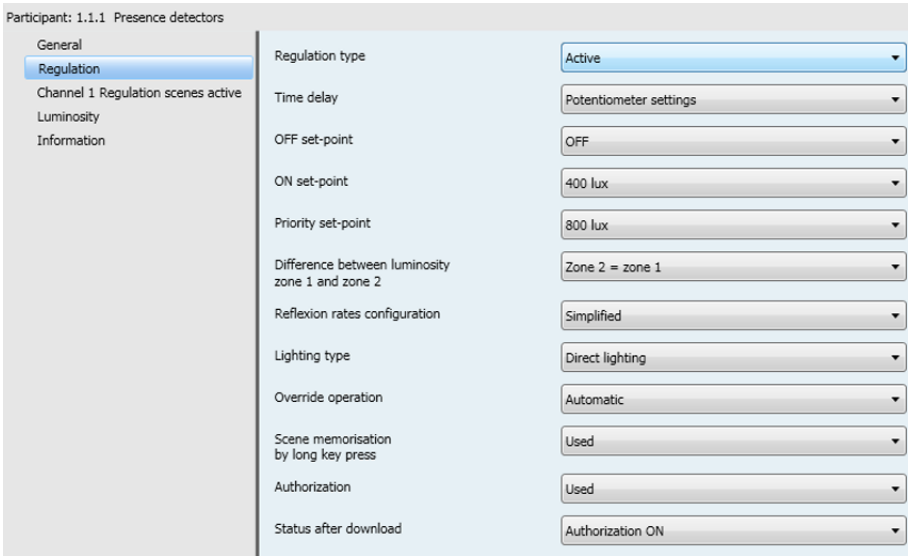
When the detector is activated (authorisation on ON) the **Remote control** object is used to toggle the detector output status (see override operation parameter for details regarding this mode), the output switches to the ON setpoint when the light is OFF and switches to OFF (0) when the light is already on. During an unauthorised period (when authorisation is OFF), the remote control is used to reverse the status of the output. When switched to ON, the output passes to 100% during the time delay.
The **Authorization** object permits to activate / deactivate the detector; when not authorized, the detector can be used as a time lag switch activated via a KNX push button.

Via a **KNX scene number** object it is also possible to activate the regulation with a specific regulation level (For example: Scene 2 set-point 200 lux). This command is ignored when a priority is running (Priority setpoint) or if an authorisation is OFF.

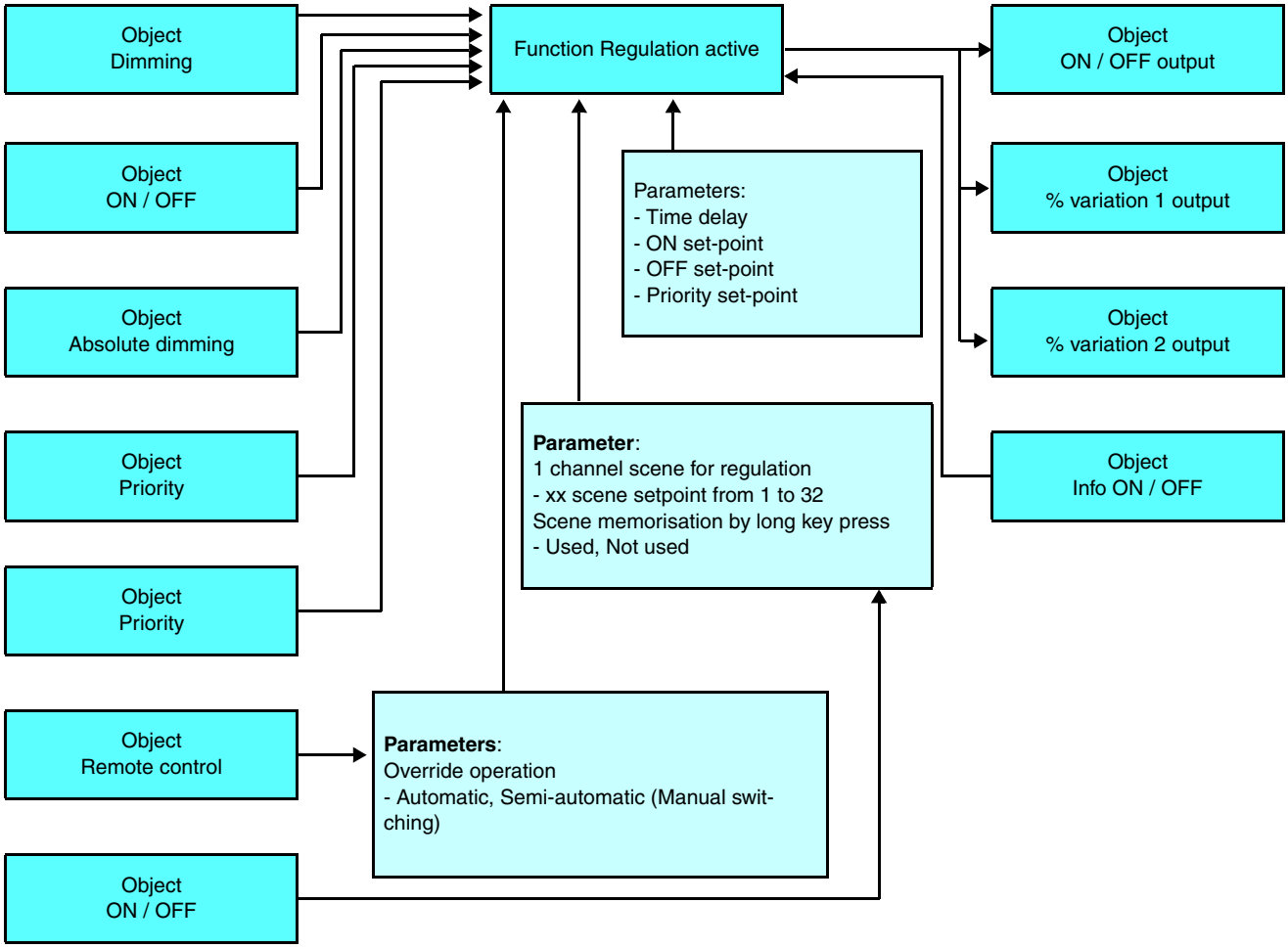
The KNX **priority set-point is** used when the **Priority** object is activated (for example: **priority set-point** 1000 lux), the detection is not taken into account during the priority.

The **Info ON/OFF** object informs the detector of the controlled remote loading status. If the status is OFF, it switches off detection for a short time (less than 1 s). This avoids incorrect detection (which may be a side-effect of switching off the light) while switching to OFF.

➜ Parameter Setting screen



Screen 4



Designation	Description	Value
Regulation type	Allows defining whether the **regulation Parameters** are to be set via potentiometers located on the device or by ETS.	Active to select the regulation type active.
OFF set-point	Allows setting the regulation set-point for Absence.	OFF, 100 lux, 150 lux, 200 lux, 250 lux, 300 lux, 350 lux, 400 lux, 450 lux, 500 lux, 550 lux, 600 lux, 650 lux, 700 lux, 750 lux, 800 lux, 900 lux, 1000 lux Default value: OFF
ON set-point	Allows setting the set-point for Presence.	OFF, 100 lux, 150 lux, 200 lux, 250 lux, 300 lux, 350 lux, 400 lux, 450 lux, 500 lux, 550 lux, 600 lux, 650 lux, 700 lux, 750 lux, 800 lux, 900 lux, 1000 lux Default value: 400 lux
Priority set-point	Allows to define the set-point used during priority (forced).	OFF, 100 lux, 150 lux, 200 lux, 250 lux, 300 lux, 350 lux, 400 lux, 450 lux, 500 lux, 550 lux, 600 lux, 650 lux, 700 lux, 750 lux, 800 lux, 900 lux, 1000 lux Default value: 1000 lux

Designation	Description	Value
Regulation scenes active	Scene xx concerned xx: 1 - 32 This parameter defines whether or not the product is concerned by scene x.	Concerned, Not involved Default value:
Regulation scenes active	Scene xx set-point xx: 1 - 32 That parameter defines the lux level used when a scene xx is called.	OFF, 100 lux, 150 lux, 200 lux, 250 lux, 300 lux, 350 lux, 400 lux, 450 lux, 500 lux, 550 lux, 600 lux, 650 lux, 700 lux, 750 lux, 800 lux, 900 lux, 1000 lux Default value: specific to each scene

4.3 Function Regulation inactive

In this mode, the light regulation is inhibited. During presence detection, the detector controls its output on a predefined level (ON% level, 100%, by default), which can be modified by a KNX pushbutton or the EEK002 / EE808 **IR remote control**.

The **% dimming output 1**, **% dimming output 2** and **On / Off output** are controlled during the time delay (set by the potentiometer or via an **ETS** parameter).
After the time delay, the outputs are maintained at a minimum level (OFF level) for a defined period (15 min when it is defined locally or x min according to the **OFF level time delay** parameter).

The ON level (%) can be changed via a KNX pushbutton (**Dimming** object) or with the EEK002 / EE808 infrared remote control.

The **ON/OFF** object is used to activate the detector when the detector is authorised. When it receives a **1**, the detector regulates around the ON setpoint and launches the lighting timer (time delay)whereas with a 0 the OFF setpoint will be applied. This command is ignored when a priority is running (Priority setpoint) or if an authorisation is OFF.

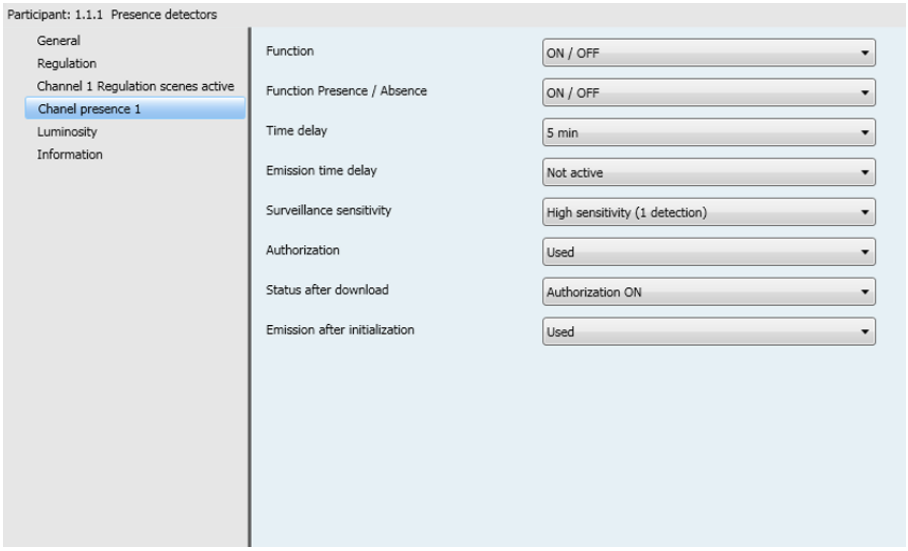
When the detector is activated (the authorisation os on Used), the **Remote control** object is used to toggle the detector output (see Overriding the operating parameters for details regarding this mode). The output switches to (2) % Level when the light is ON and switches to (0) OFF when the light is already ON. During an unauthorised period (when authorisation is OFF), the remote control is used to reverse the status of the output. When switched to ON, the output passes to 100% during the time delay.

The **Authorization** object permits to activate / deactivate the detector; when not authorized, the detector can be used as a time lag switch activated via a KNX push button. Via a **KNX Scene number** object it is also possible to fix the object **Dimming output %** with a specific brightness level (For example: Scene 2 10%). This control is ignored when a priority is running (Priority setpoint) and if the authorisation is OFF.

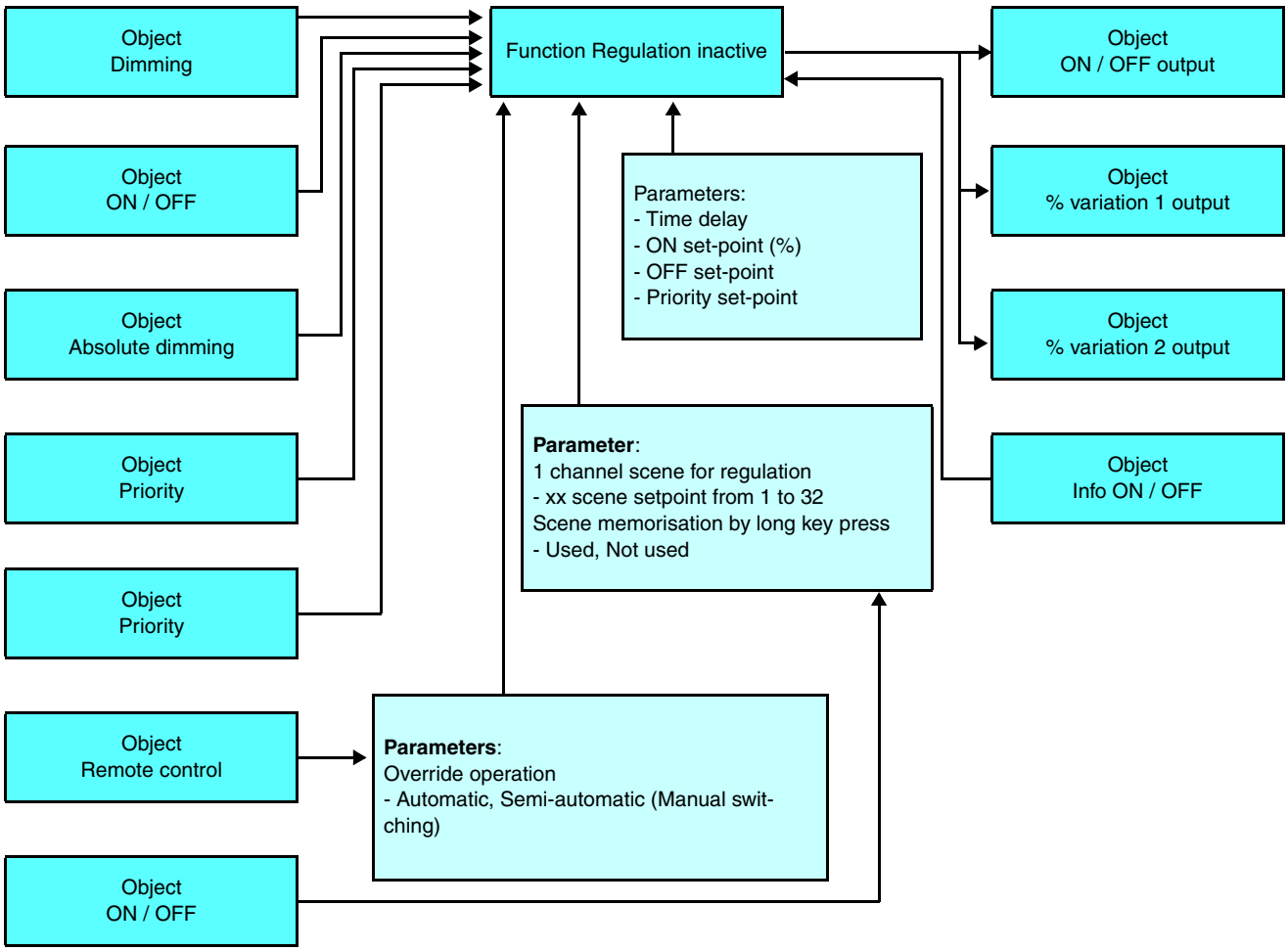
The Priority level (%) is used when the **Priority** object is activated (For example: Forced level is 100 %).

The **Info ON/OFF** object informs the detector of the controlled remote loading status. If the status is OFF, it switches off detection for a short time (less than 1 s). This avoids incorrect detection (which may be a side-effect of switching off the light) while switching to OFF.

➜ Parameter Setting screen



Screen 5



Designation	Description	Value
Regulation type	Allows defining whether the **regulation Parameters** are to be set via potentiometers located on the device or by ETS.	Not active to select the regulation type inactive.
Level OFF	Allows setting the regulation set-point for Absence.	OFF (0%), 5 %, 10 %, 15 %, 20 %, 25 %, 30 %, 35 %, 40 %, 45 %, 50 %, Default value: OFF
Level ON (%)	Allows setting the set-point for Presence.	0 to 100 step 1 Default value: 100
Forced level (%)	Allows to define the set-point used during priority (Priority mode).	0 to 100 step 1 Default value: 100
OFF level time delay*	That parameter defines the pre-warning duration. During this time delay, the detector uses the OFF level. The detector switches completely to OFF after this time delay.	Permanent OFF, 5 min, 10 min, 15 min, 30 min, 45 min, 1 h, 2 h, 3 h, 4 h Default value:
Scenes for regulation inactive	Scene xx concerned xx: 1 - 32 This parameter defines whether or not the product is concerned by scene x.	Concerned, Not involved Default value:
Scenes for regulation inactive	Scene xx set-point xx: 1 - 32 That parameter defines the lux level used when a scene xx is called.	0 to 100 step 1 Default value: specific to each scene xx

* This parameter is only visible if the **OFF level** parameter has a value other than OFF.

4.4 Potentiometer Setting Regulation Function

The regulation type can be defined directly via potentiometer settings.

Three modes are available:
- mode 1: regulation active according remote set-point (auto mode),
- mode 2: regulation active according to local set-point,
- mode 3: Regulation inactive.

The mode 1 and mode 3 are offer the same functionalities as the one the product implements when set via ETS.

The mode 2 is only accessible via local settings. The regulation is active with local set point after detection. The **% dimming output 1**, **% dimming output 2** and **On / Off output** are controlled during the time delay (set by the potentiometer or via an **ETS** parameter). the regulation setpoint during occupation is defined locally by the Lux potentiometer. At the end of this time delay, the output uses the OFF setpoint (defined via ETS) to regulate the lighing during absence.

The ON setpoint can only be changed locally with the potentiometer.

A KNX pushbutton can be used to temporarily modify the 2 % dimming outputs via the dimming control.

Via a **KNX scene number** object it is also possible to activate the regulation with a specific regulation level (For example: Scene 2200lux set-point).

The **KNX priority set-point** is used when the **Priority** object is activated (For example: Priority set-point 1000 lux).

Designation	Description	Value
Regulation type	Allows defining whether the **regulation Parameters** are to be set via potentiometers located on the device or by ETS.	Potentiometer settings are used to define the function regulation mode, regulation may be active or inactive according to the position of the potentiometers (Mode 1, 2 or 3).
OFF set-point	Allows setting the regulation set-point for Absence.	OFF, 100 lux, 150 lux, 200 lux, 250 lux, 300 lux, 350 lux, 400 lux, 450 lux, 500 lux, 550 lux, 600 lux, 650 lux, 700 lux, 750 lux, 800 lux, 900 lux, 1000 lux Default value: OFF
ON set-point	Allows setting the set-point for Presence.	OFF, 100 lux, 150 lux, 200 lux, 250 lux, 300 lux, 350 lux, 400 lux, 450 lux, 500 lux, 550 lux, 600 lux, 650 lux, 700 lux, 750 lux, 800 lux, 900 lux, 1000 lux Default value: 400 lux
Priority set-point	Allows to define the set-point used during priority (forced).	OFF, 100 lux, 150 lux, 200 lux, 250 lux, 300 lux, 350 lux, 400 lux, 450 lux, 500 lux, 550 lux, 600 lux, 650 lux, 700 lux, 750 lux, 800 lux, 900 lux, 1000 lux Default value: 1000 lux
Level OFF	Allows setting the regulation set-point for Absence.	OFF (0%), 5 %, 10 %, 15 %, 20 %, 25 %, 30 %, 35 %, 40 %, 45 %, 50 % Default value: OFF
Level ON (%)	Allows setting the set-point for Presence.	0 to 100 step 1 Default value: 100
Forced level (%)	Allows to define the set-point used during priority (forced mode).	0 to 100 step 1 Default value: 100
OFF level time delay*	That parameter defines the pre-warning duration. During this time delay, the detector uses the OFF level. The detector switches completely to OFF after this time delay.	Permanent OFF, 5 min, 10 min, 15 min, 30 min, 45 min, 1 h, 2 h, 3 h, 4 h Default value:
Scenes for regulation inactive	Scene xx concerned xx: 1 - 32 This parameter defines whether or not the product is concerned by scene x.	Concerned, Not involved Default value:
Scenes for regulation inactive	Scene xx set-point xx: 1 - 32 That parameter defines the lux level used when a scene xx is called.	0 to 100 step 1 Default value: specific to each scene xx
Regulation scenes active	Scene xx concerned xx: 1 - 32 This parameter defines whether or not the product is concerned by scene x.	Concerned, Not involved Default value:

Designation	Description	Value
Regulation scenes active	Scene xx set-point xx: 1 - 32 That parameter defines the lux level used when a scene xx is called.	OFF, 100 lux, 150 lux, 200 lux, 250 lux, 300 lux, 350 lux, 400 lux, 450 lux, 500 lux, 550 lux, 600 lux, 650 lux, 700 lux, 750 lux, 800 lux, 900 lux, 1000 lux Default value: specific to each scene

4.5 Time delay

The lighting time delay is activated during the switch from Absence (no movement) to Presence (movement) on the regulation channel (see the Regulation function).

The occupancy sensor switches back to Absence mode (no movement) at the end of the delay or if the ambient brightness is high enough. That timer is automatically retriggered after detection. The time delay can be set by the ETS or via the setting potentiometer on the device or with the installer remote control EEK001 / EE807.

Designation	Description	Value
Time delay	Allows defining the time during which the output switches to ON upon a valid presence detection (Brightness below the threshold). If a presence is detected before the end of the delay, the timer is triggered again (Time delay restarts).	Potentiometer settings, 5 s, 15 s, 30 s, 1 min, 2 min, 3 min, 4 min, 5 min, 10 min, 15 min, 30 min, 1 h, 2 h, 3 h, 4 h, 8 h Default value: Potentiometer settings

4.6 Difference in luminosity Zone 1 / Zone 2

The TCC530E detector can control a second zone for which the luminosity is defined using the **Zone 1/zone 2 luminosity difference** parameter which is linked to the luminosity measured in zone 1. This ratio can be defined between -50% and +50%.

However, when zone 1 is at 100% e.g. because it is night, the second zone is also at 100% whatever the defined ratio may be.

Designation	Description	Value
Difference in luminosity Zone 1 / Zone 2	Defines the luminosity ratio linking zone2 to zone 1.	Zone 2 = Zone 1 - 50% Zone 2 = Zone 1 - 45% Zone 2 = Zone 1 - 40% Zone 2 = Zone 1 - 35% Zone 2 = Zone 1 - 30% Zone 2 = Zone 1 - 25% Zone 2 = Zone 1 - 20% Zone 2 = Zone 1 - 15% Zone 2 = Zone 1 - 10% Zone 2 = Zone 1 - 5% Zone 2 = Zone 1 Zone 2 = Zone 1 + 5% Zone 2 = Zone 1 + 10% Zone 2 = Zone 1 + 15% Zone 2 = Zone 1 + 20% Zone 2 = Zone 1 + 25% Zone 2 = Zone 1 + 30% Zone 2 = Zone 1 + 35% Zone 2 = Zone 1 + 40% Zone 2 = Zone 1 + 45% Zone 2 = Zone 1 + 50% Default value: Zone 2 = Zone 1

■ Method of determining the **Zone 1 / zone 2 luminosity difference** ratio

In full daylight, with artificial light off and the shutter open, measure the natural luminosity in the two zones using a luxmeter. Carry out the following operation: (Luminosity zone 2 / luminosity zone 1) - 1.

4.7 Levels of reflection of natural and artificial light

Luminosity measurement by the detector may be influenced by its environment. To compensate for this, it is possible to adjust this measurment according to two modes which can be selected via the **Reflection level configuration** parameter:

- Simplified: the detector offers two possibilities: **Direct lighting** and **Indirect lighting**. The light reflection levels are automatically adjusted,
- Expert: the levels of reflection of natural light and artificial light must be adjusted manually.

Designation	Description	Value
Reflection level configuration	Used to selects the method for setting the light reflection level.	Simplified, Expert Default value: Simplified
Type of lighting*	Defines the type of lighting in the intallation.	Direct lighting, Indirect lighting Default value: Indirect lighting
Level of reflection of natural light**	Defines the level of reflection of natural light.	0 - 50 Default value: 25
Level of reflection of artifical light**	Defines the level of reflection of artificial light.	1 - 12 Default value: 10

* This parameter is only visible if the **Reflection level configuration** parameter has the value **Simplified**.
** This parameter is only visible if the **Reflection level configuration** parameter has the value **Expert**.

■ Method for determining the level of reflection of natural light

In full daylight, with the artificial light off.
Using a luxmeter, measure the luminosity in zone 1 on the surface under the detector. Then measure the luminosity at the ceiling, next to the detector.
Level of reflection of natural light = Surface luminosity / Ceiling luminosity

■ Method of determining the level of reflection of artifical light

With the shutters closed or at night, with the artificial light at 100%.
Using a luxmeter, measure the luminosity in zone 1 on the surface under the detector. Then measure the luminosity at the ceiling, next to the detector.
Level of reflection of natural light = Surface luminosity / Ceiling luminosity

4.8 Override operation

The **Remote control** object is used to control the **lighting channel** without taking into account movement detection or the luminosity threshold.

The operating mode (Automatic or Semi-automatic) is selected by an **ETS** parameter or via the installer remote control EE807.

■ Semi-automatic - manual switching (with authorization= ON)

To activate the detector, thus switch the light, it is mandatory to use an external push button (KNX button) or IR remote control (EEK002 / EE808). This mode permits to harvest the maximum energy savings.

When it receives a **Remote control ON** object, the detector switches from Absence to Presence if it is in Absence mode, and to Absence mode if it is in Presence mode. While a person is present, the detector uses the ON setpoint or the ON level depending on the regulation mode used (active or not active). If it is on Absence, the detector switches to OFF.

With an **OFF** Object remote control the detector switches back into the automatic control mode.

■ Automatic (When authorization is ON)

In this mode, the light is controlled by motion in the detection area and ambient light levels. If Presence is detected whilst the light levels are below the required lux level, the sensor is activated and keeps the light on whilst there is still occupancy and for the time out period afterwards (Lighting time delay parameter).
Once the sensor has deactivated the lights, it will require new occupancy whilst the ambient light level is below the required lux.
The used mode can be changed via the IR remote control (default mode is presence detection automatic).

The remote control (object or IR remote control EE808 / EEK002) is here used to change the lighting output state (Presence or Absence).

The remote control (object or IR remote control EE808) is here used to change the lighting output state (Presence or Absence).

When receiving an **ON** Object remote control allows:
- Switching to Presence when in Absence,
- Switching to Absence when in Presence.

With an **ON** Object remote control, the detector switches back into the Automatic control mode

4.9 Scene memorisation by long key press

Designation	Description	Value
Scene memorisation by long key press	This parameter authorizes or forbids scene the scene memorisation after a long key press.	Used, Not used Default value: Used

4.10 Authorization

This function authorizes or inhibits presence detection (by a clock, for example, at certain periods).

Designation	Description	Value
Authorization	This parameter authorises or forbids presence detection.	Used, Not used Default value: Used

4.11 Status after download

The **status after download** for the authorization can be defined by the aid of a parameter.
When the detector is only activated when authorisation is at ON, during the OFF period the lighting circuit (local and remote) is controlled after a remote control (KNX button or IR remote control).

Designation	Description	Value
Status after download	This parameter sets the authorisation status after an ETS download.	Authorization ON, Authorization OFF Default value: Authorization ON

4.12 Emission after initialization

The **Emission after initialisation** parameter defines whether the presence detector sends the current status (depending on the defined function ON/OFF, the scene number or the luminosity) via the Regulation Channel after power is restored. Sending the status can e. g. be helpful when synchronizing a visualization.

Designation	Description	Value
Emission after initialization	This parameter defines whether the current status must be sent or not after a bus failure.	Used, Not used Default value: Used

4.13 Status at bus return

The input status after start-up can be defined via a parameter, the start-up status can be defined as ON or OFF after bus return. This behaviour can be set via **ETS** parameters or by the aid of the installer remote control EEK001 / EE807.

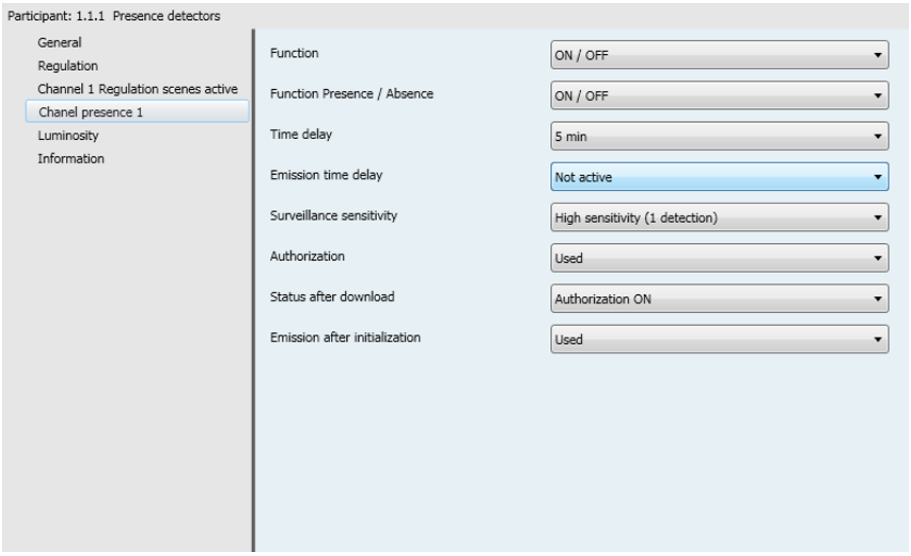
Designation	Description	Value
Status at bus return	This parameter defines the status of the input after bus return.	OFF, ON Default value: ON

In the case of Presence chanels 1 and 2, only presence detection is taken into account. The ambient luminosity has no influence

5. Configuration of Presence Channels 1 and 2

on output control. The output control offers different functions:

➜ Parameter Setting screen



Screen 6

An additional parameter is associated with each value of the **Function** parameter in order to specify the operating mode.

Function parametr value	Additional parameter(s) appearing for the Function value
Not used	None
ON / OFF	Function Presence / Absence
Timer	Control limitation time delay
Priority	Priority type
Brightness value	Brightness value Presence
Brightness value Presence / Absence	Brightness value Presence
	Brightness value Absence
Scene	Scene number Presence
Scene Presence / Absence	Scene number Presence
	Scene number Absence

5.1 ON/OFF function and Timer

Thee functions are used to control switching a lighting circuit or any other load on or off.

The ON / OFF function sends the **ON / OFF** object.
The Timer function sends the **Timer** object.
The status of the controlled output is received on the **Info ON/OFF** object which can condition the initial control.

Designation	Description	Value
Function Presence / Absence	This parameter defines the control sent after presence is detected and possibly the control sent at the end of the time delay.	OFF, ON, OFF / ON, ON / OFF Default value: ON
Control limitation time delay		1 - 30 Default value: 15

5.2 Priority

The Priority function sends priority-start or priority-stop controls.

The Priority action depends on the type of application controlled: lighting, blinds, heating, etc.

The Priority function emits the **Priority** object.

The status of the controlled output is received on the **Info ON / OFF** object.

Designation	Description	Value
Priority type	This parameter selects a priority type. The action depends on the type of application.	Priority ON - Down - Comfort, Priority OFF - Up - Frost protection Default value: Priority ON - Down - Comfort

5.3 Brightness value and Brightness value Presence / Absence

These functions enable commands to be sent to dim the lighting on 1 or 2 levels: a value after presence is detected and possibly another value at the end of the presence time delay.

These functions send the **Absolute dimming** object.

Designation	Description	Value
Brightness value Presence	This parameter defines the absolute dimming level of the output sent after a presence is detected.	0% - 100% Default value: 100%
Brightness value Absence	This parameter defines the absolute dimming level of the output sent at the end of the time delay.	0% - 100% Default value: 0%

5.4 Scene and Presence/Absence Scene

The Scene and Presence/Absence Scene functions are used to send group controls to different types of outputs to create ambiences or scenarios (leave scenario, reading ambience, etc.).

These functions send the **Scene** object.
Please note, the product can only activate a scene. To record a scene another input must be used (which you can remove after recording).

Designation	Description	Value
Scene number Presence	Defines the number of the scene sent after a presence is detected.	Scene 1 to Scene 32 Default value: Scene 1

Designation	Description	Value
Brightness value Absence	Defines the number of the scene sent at the end of the time delay.	Scene 1 to Scene 32 Default value: Scene 2

5.5 Time delay

The lighting time delay is activated when switching from Absence (no movement) to Presence (movement) on the presence channel.

The presence sensor returns to Absence mode (no movement) at the end of the time delay whatever the ambiance luminosity level may be. That timer is automatically retriggered after detection. The time delay can be set by the ETS or via the setting potentiometer on the device or with the installer remote control EEK001 / EE807.

Designation	Description	Value
Time delay	Defines the period during which the output switches to ON when a presence is detected. If a presence is detected before the end of the delay, the timer is triggered again (Time delay restarts).	Potentiometer settings, 5 s, 15 s, 30 s, 1 min, 2 min, 3 min, 4 min, 5 min, 10 min, 15 min, 30 min, 1 h, 2 h, 3 h, 4 h, 8 h, Default value: 5 min

5.6 Emission time delay

Designation	Description	Value
Emission time delay	This parameter defers sending the control after detection.	Not active, 1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 30 s, 45 s, 60 s, 1 min 15, 1 min 30, 2 min, 2 min 30, 3 min, 5 min, 10 min, 15 min Default value: Not active

5.7 Surveillance sensitivity

This parameter is used to define detection sensitivity. High sensitivity allows the detector to validate presence at the first detection. Low sensitivities define the interval during which 3 detections allow the presence event to be validated.

Designation	Description	Value
Surveillance sensitivity	This parameter defines the sensitivity of detection.	Low sensitivity, High sensitivity (1 detection) Default value: High sensitivity (1 detection)
Low sensitivity*	This setting is used to define the interval during which the detection validates the presence event.	3 detections in 10 seconds, 3 detections in 30 seconds, 3 detections in 1 min, 3 detections in 5 min Default value: 3 detections in 10 seconds

5.8 Authorization

This function authorizes or inhibits presence detection (by a clock, for example, at certain periods).

Designation	Description	Value
Authorization	This parameter authorises or forbids presence detection.	Used, Not used Default value: Used

5.9 Status after download

The **status after download** for the authorization can be defined by the aid of a parameter. When the detector is only activated when authorisation is at ON, during the OFF period the lighting circuit (local and remote) is controlled after a remote control (KNX button or IR remote control).

Designation	Description	Value
Status after download	This parameter sets the authorisation status after an ETS download.	Authorization ON, Authorization OFF Default value: Authorization ON

5.10 Emission after initialization

The **Emission after initialisation** parameter defines whether the presence detector sends the current status (depending on the defined function ON/OFF, the scene number or the luminosity) via the Regulation Channel after power is restored. Sending the status can e. g. be helpful when synchronizing a visualization.

Designation	Description	Value
Emission after initialization	This parameter defines whether the input status is sent on the bus upon initialisation.	Used, Not used Default value: Used

6. Luminosity

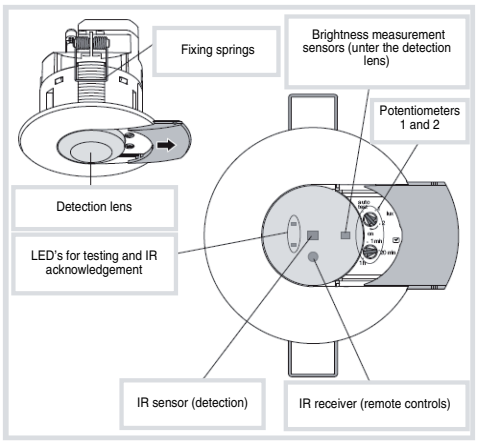
The detector can send the level of luminosity it measures regularly via the **Luminosity** object.

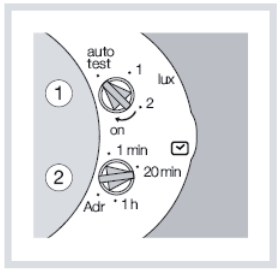
Designation	Description	Value
Periodical emission delay	This parameter defines the frequency at which the object is sent on the bus.	Not active, 1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 30 s, 45 s, 60 s, 1 min 15, 1 min 30, 2 min, 2 min 30, 3 min, 5 min, 15 min, 30 min, 45 min, 1 h, 2 h, 3 h, 5 h, 12 h, 24 h Default value: 5 min
Value emission by variation of (lux)	This parameter defines the minimum variation required for the product to send the value on the bus.	0 - 10003 Default value: 150

7. Physical addressing

The detector can be passed into the KNX addressing mode via the local potentiometers or by the aid of the remote control EE808.

Move the potentiometer 2 to "Adr" or use **remote control** EE807 (long push > 5 s on the SET key), the red lend behind the lenses is switched-ON to indicate the **addressing mode**.





Installer remote control EEK001 / EE807