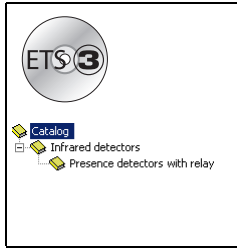




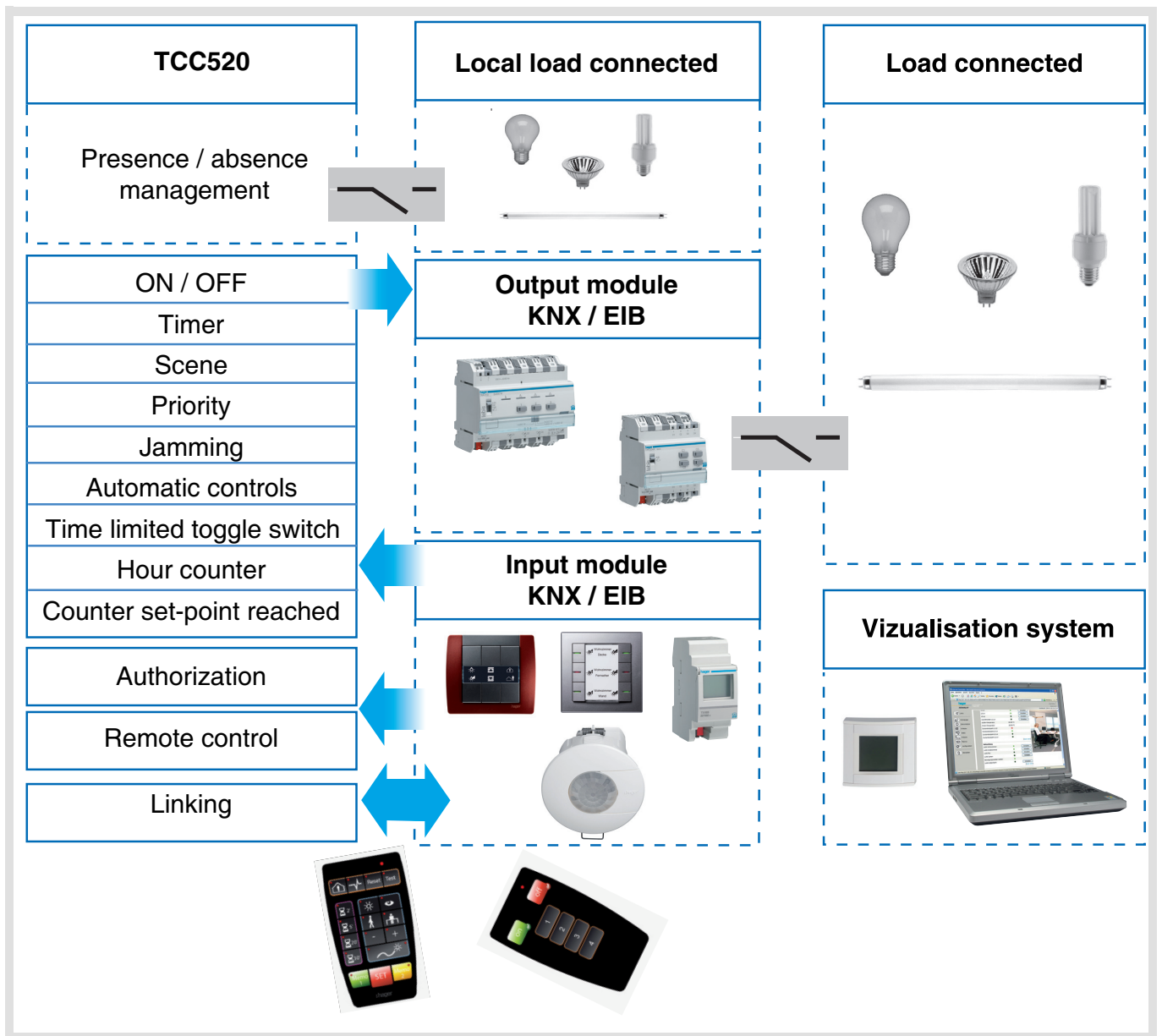


Tebis application software



STCC520 Presence sensor with relay

	Product reference	Product designation	TP device  RF device 
	TCC520	Presence sensor with relay	
	TKK513P/TKK515P	Presence sensor with relay for klik system	



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1. General overview

The STCC520 application software allows to configure the lighting channels of our TCC520.

The occupancy sensors TCC520 are presence detectors designed to detect low amplitude movements (e.g. person sitting at a desk). Detection is by means of a pyro-electric sensor located under detection lens. The occupancy sensor measures the brightness in the room on a continuous basis and compares it to the level preset on the potentiometer, by means of the remote control EE807 or ETS parameter.

The main functions are the following:

■ Presence detection and brightness measurement

The TCC520 embeds a relay output (Local load direct control). This output is switched in case of presence detection when the ambient brightness is below an adjustable threshold.

■ Lighting channel

In addition to the local load, the detector can also activate an actuator connected to the bus when presence is detected and brightness level is below a defined threshold.

The possible functions are:

- Switching on when presence and off when absence,
- Timer activation,
- Brightness value (%) when presence,
- Brightness value when presence and absence,
- Scene activation when presence,
- Scene activation when presence and absence.

■ Brightness threshold

The brightness threshold can be defined by ETS or directly on the device via a potentiometer or by means of the installer remote control EEK001/EE807. This threshold value defines the brightness level (darkness) from which, in case of detection, a command is sent on the bus via the lighting channel and the local load is switched on.

■ Lighting time delay

The lighting time delay defines the activation duration of the lighting channel in case of occupancy. This delay may be reduced when there is enough ambient light. It can be set locally via potentiometer, remote control ETS, EEK001/EE807.

■ Remote control of the Lighting channel

The Lighting channel and local load can also be switched on via the remote control ETS or via a EEK002/EE808 push button.

The detector can be used in the automatic mode or semi-automatic. When the semi-automatic mode is selected, the remote button is used to switch ON, whereas the detector switches OFF.

The automatic mode is used to get an automatic control of the lighting according to presence and brightness conditions. The push button is here used to change the output state of the lighting output (from ON to OFF or from OFF to ON).

■ 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.

■ Authorization ON or OFF (Lighting channel)

This function authorizes or forbids presence detection by the lighting channel (by a clock, for example, at certain periods).

■ Linking Master / Slave

This function extends the presence detector's detection area by associating several other detectors. 3 linking possibilities are available; the way to work is defined by the aid of an ETS parameter.

■ Direct control of the local load

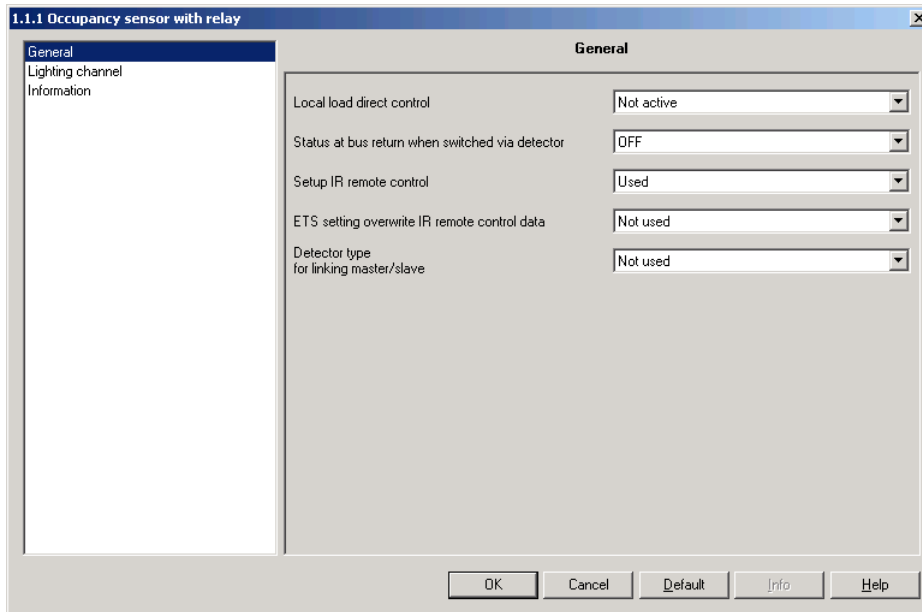
The local load can be controlled by the presence detector or directly via communication objects. To avoid any conflict, there is no priority between these two controls; the detector can be deactivated by the aid of an **Authorization** object. When switched via the bus, the connected load can be controlled like the TXA output actuator range (ON / OFF, Timer, Time limited toggle switch, Priority, Jamming, Scene, Timer and Automatic controls, Hours counter).

2. Configuration and General parameters

2.1 General parameters

The general parameters setting screen allows setting the basic operation of the TCC520.

→ Parameter Setting screen



Screen 1

2.1.1 Local load direct control and scene restore

The local load (integrated relay) can be switched according occupancy or directly via the KNX bus. There is no priority between the detector and the bus messages. To avoid any conflict, it is possible to disable the detector via an **Authorization object**.

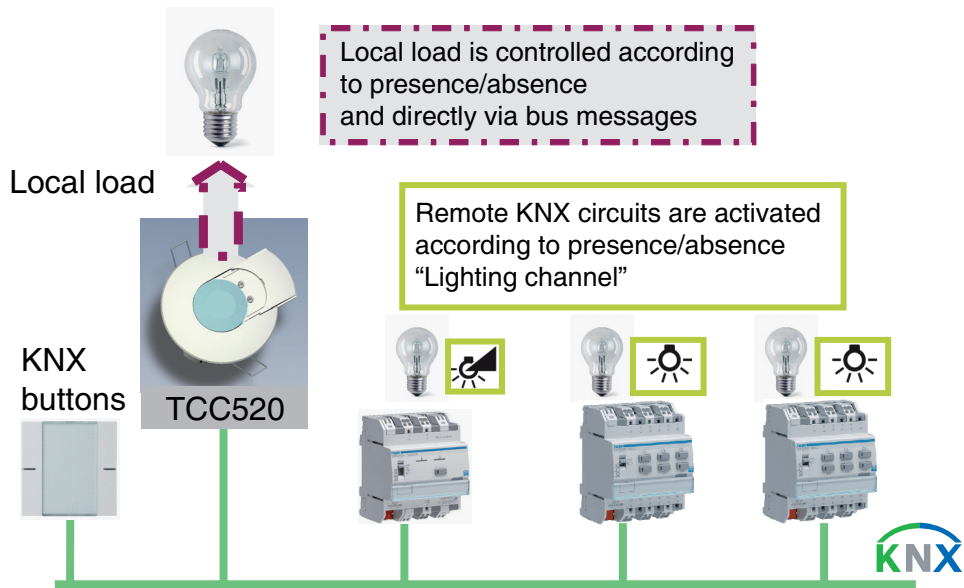
When the local load control is activated, the available functionalities are the same as the one implemented in our TXA output actuator range (ON / OFF, Timer, Time limited toggle switch, Priority, Jamming, Scene, Timer and Automatic controls, Hours counter).

Designation	Description	Value
Local load direct control	This parameter allows the control of the local load via the bus.	Active, Not active
	That is especially used for central control of the lighting channel.	Default value: Not active
Scenes restore object *	If the value is Active, the values associated to the scenes at the last download are restored upon reception of this object.	Not active, Active Default value: Not active

* This parameter is only visible if the **Local load direct control parameter** has following value: Active.

The following pictures illustrate the controls possibility offered by the TCC520:

- Control of a local load (integrated relay) and activation of KNX actuators according to presence/absence via the lighting channel.
- Direct control of the local load with KNX messages (Push button, Sensors, Clocks...)



2.1.2 Status at bus return when switched via detector

The output state after power up can be defined via a parameter, the power up state can be set to ON or to OFF after bus power return.

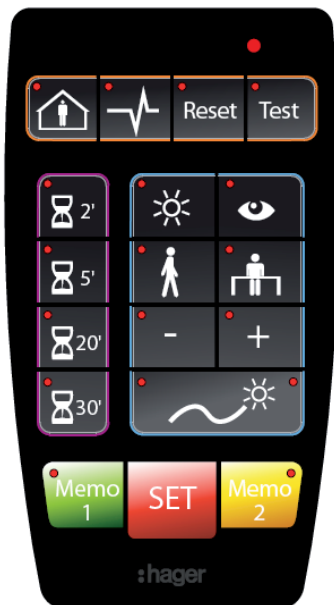
This behaviour can be set via ETS parameters or by the aid of the installer remote control EEK001/EE807.

Designation	Description	Value
Status at bus return when switched via detector	This parameter defines the relay output status after power up when the output is controlled via the detector.	ON, OFF Default value: OFF

2.1.3 Remote setting the installer 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.



Installer remote control
EEK001/EE807

Designation	Description	Value
Setup IR remote 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	Yes, No Default value: No

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

2.1.4 Linking

This function extends the presence detector's detection area by associating several other detectors. 3 linking possibilities are available; the ETS parameter **Detector type for linking master/slave** is used to select the wished functionality.

■ Master detector

A master detector switches on its lighting channel (local and remote load) as soon as one of the 25 slave detectors indicates. A master detector is mostly installed in a corridor (or notional corridor); the idea with this feature is to have light in circulation areas when at least one linked area is occupied.

■ Slave detector

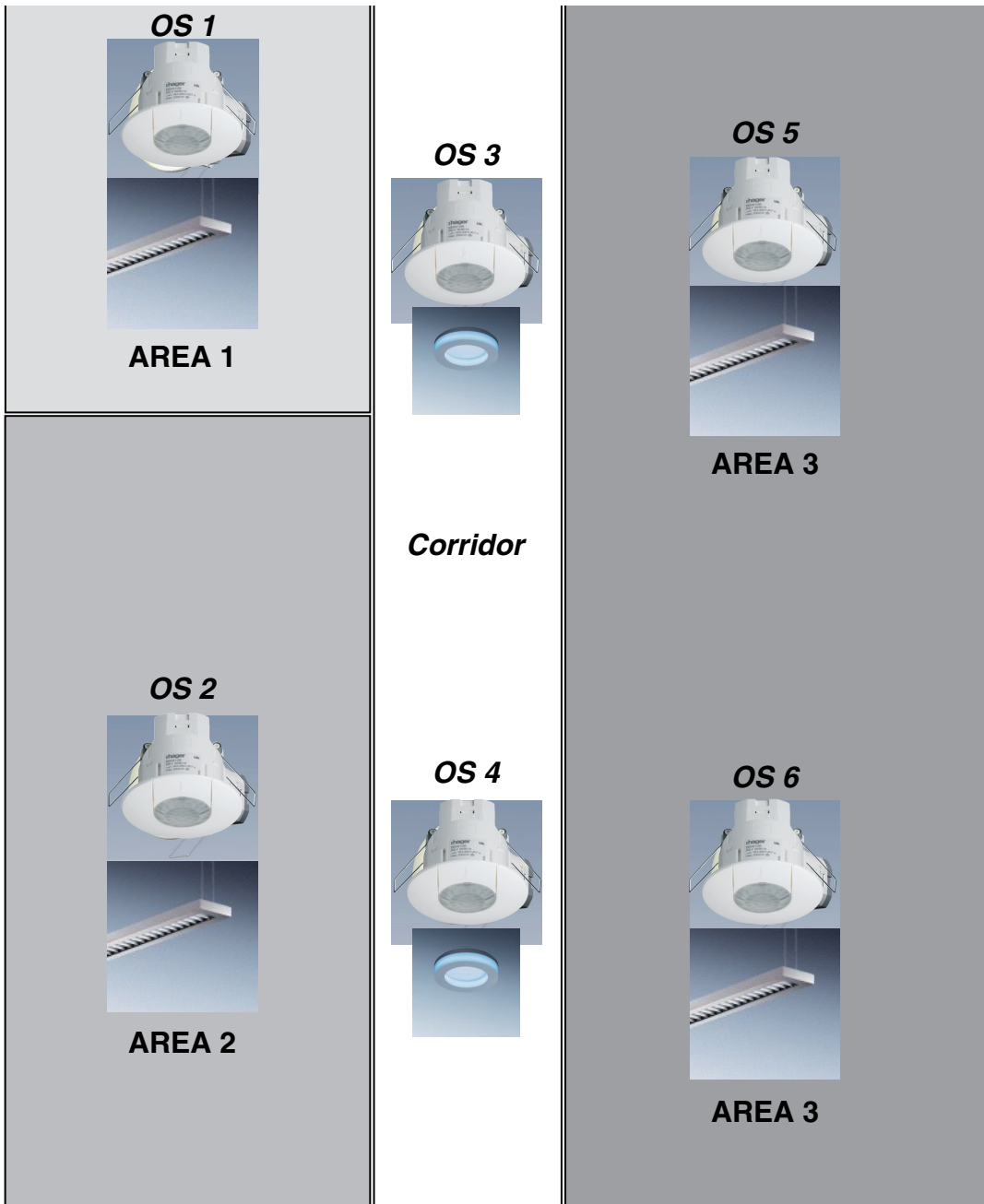
A slave detector informs the master detector that there is light in the slave area which starts the switch on the master detector lighting channel.

■ Master/slave detector

In this case, the detectors are fully linked together. There will be light in the global area when one of the areas is occupied.

Designation	Description	Value
Detector type for linking master/slave	This parameter defines the working way of the linking master/slave functionality	Not used, Master detector, Slave detector, Master/slave detector Default value: Not used

The following examples present an office use case. There are presence detectors in the offices (area 1 to 3) and presence detectors in the corridor. The occupancy sensors OS1, OS2, OS5 and OS6 are defined as slave detectors, whereas OS3 and OS4 installed in the corridor are master detectors. The light in the corridor will be on if there is light (thus occupancy) in one **OR** function of the areas.



3. Configuration and parameters of the lighting channel: control via the detector

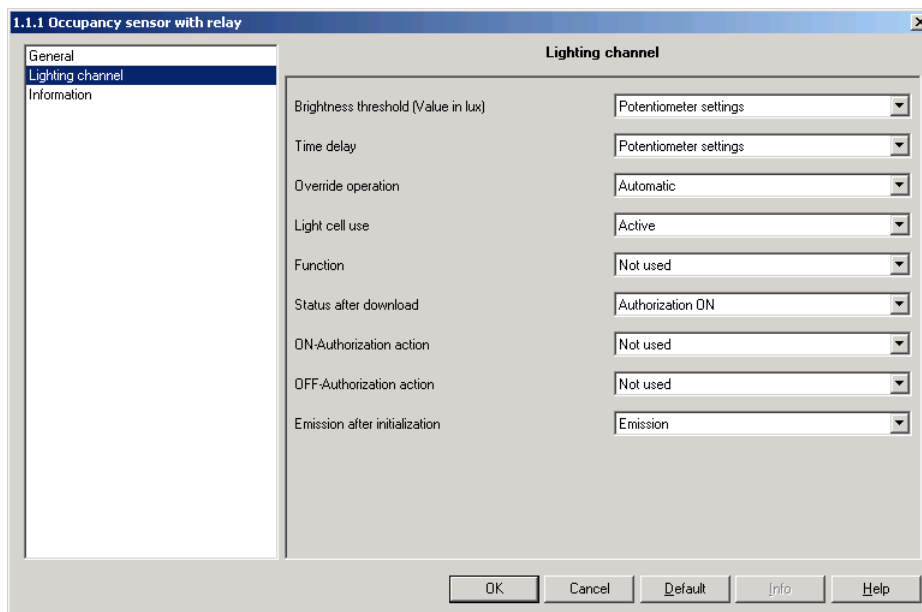
3.1 Occupancy detector objects list (without direct load control via KNX)

	None	Timer	Brightness value	Brightness value Presence/Absence	Scene	Scene Presence / Absence	Linking
ON / OFF *	X	X					
Info ON / OFF *		X					
Timer		X					
Absolute dimming			X	X			
Scene					X	X	
Remote control *	X	X	X	X	X	X	X
Authorization *	X						
Slave input 1 to 25	X1)	X1)	X1)	X1)	X1)	X1)	X1)
Output	X2)	X2)	X2)	X2)	X2)	X2)	X2)

* These objects are always available

1. The **Slave input** objects are available when the Detector is used as master detector. This object allows using a slave detector in order to extend the detection area.
2. The output (function linking) object is available only when the Detector is used as a slave detector or a master/slave detector. This object allows sending to a master detector the Motion detected information. The slave detector is then used to extend the detection area of the master detector.

→ Parameter Setting screen



Screen 2

3.2 Brightness threshold

The brightness threshold defines from which brightness (darkness) on a presence detection will lead to the Presence status on the Lighting channel and on the local load.

The brightness threshold 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
Brightness threshold (Value in lux)	<p>This threshold value defines the brightness level (darkness) from which, in case of detection, a command is sent on the bus via the lighting channel and the local load is switched on.</p> <p>The switching OFF threshold is defined by the detector itself, it takes into account daylight filtering and brightness variation.</p>	Potentiometer settings, Brightness measurement inactive, 5 lux, 50 lux, 100 lux, 200 lux, 300 lux, 400 lux, 500 lux, 600 lux, 700 lux, 800 lux, 900 lux, 1000 lux, Default value: Potentiometer settings

3.3 Lighting time delay

The Lighting time delay is activated while switching from Absence (no movement) to Presence (movement) on the Lighting channel and the local load, the ambient brightness is also taken into account (see **Brightness threshold**).

The occupancy sensor switches back to Absence mode (no movement) at the end of the delay or if the ambient brightness is high enough. According to the function set for this channel, a telegram is sent on the bus in case of Presence and/or Absence. That timer is automatically retriggered after detection. The time 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).	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

3.4 Override operation

The **remote control** object is used to control the Lighting channel and local load without taking into account the motion detection or the brightness 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)

In this mode, the sensor needs to be activated by an infra red remote control EEK002/EE808 or via a KNX a remote control input (KNX push button). Once the sensor is activated, the sensor will hold the lights on whilst there is still occupancy and for the time out period afterwards. Once the sensor has deactivated the lights, it will require another input from the wall switch or the remote control to switch the lights on. To activate the detector, thus switch the light, it is mandatory to use an external push button or IR remote control (or KNX push button). This mode permits to harvest the maximum energy savings.

After receiving an ON (**Object remote control**), it allows to switch from Absence to Presence and from Presence to Absence.

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, 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 levels are 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).

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.

■ Use of the remote control when authorisation is OFF

In that case, the remote control object is used to trigger (with **ON Object remote control**) the lighting channel and the local load, the light is switched on during the Lighting time delay.

Designation	Description	Value
Override operation	Allows defining the operation of the Derogation command output by a communicating push button (refer to the Derogation function section).	Automatic, Semi-automatic - manual switching. Default value: Automatic



User remote control EE808/ EEK002

3.5 Light cell use

The active cell is mainly used for presence detection applications (offices). In those projects, the brightness is measured continuously; the brightness threshold defines the switching on condition, where the brightness level for switching OFF (filtering artificial light and daylight) is defined by calculation.

The passive cell mode is especially interesting for corridor applications; the switching ON is defined according the Brightness threshold, the switching OFF is related to the Lighting delay. In this mode, the occupancy detector works like a classical motion detector.

Designation	Description	Value
Light cell use	The use of the lighting cell can be defined via this parameter.	Active, Passive. Default value: Active

3.6 Functions of the Lighting channel

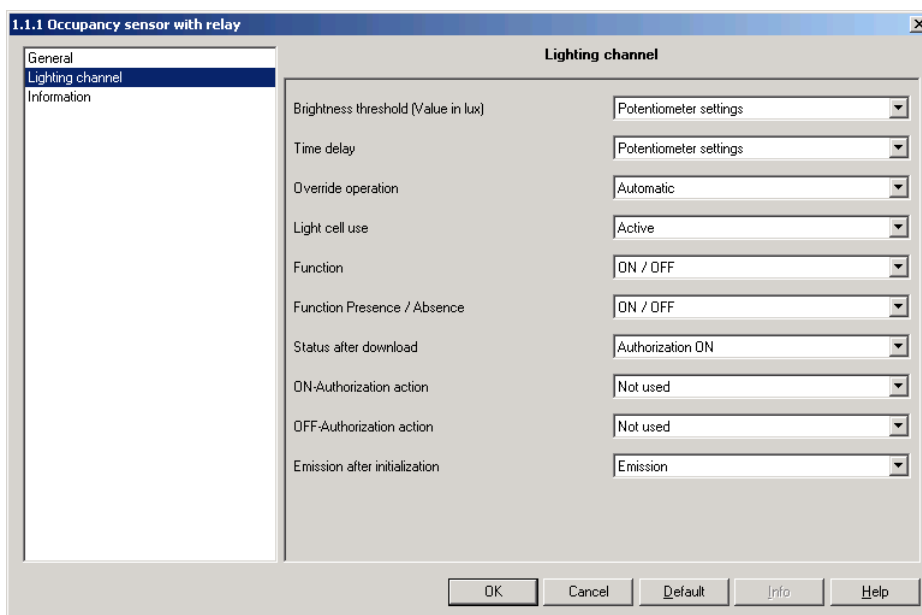
When detecting a motion, the command for Presence is sent on the bus, taking into account the ambient brightness. If there is no more motion detection, the command for Absence is sent on the bus after the switch-OFF delay has elapsed (if it was set). The Function parameter allows selecting the commands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

3.6.1 ON/OFF function

The **ON/OFF function** allows setting a switching output (lighting circuit) to one (ON or OFF) value in case of Presence and to another value in case of Absence, these values being preset in the parameters. The **ON/OFF function** sends commands on the bus via the **ON/OFF object**.

Description: According to the setting of the parameters, when switching from Absence to Presence, an ON or an OFF command is sent on the bus via the **ON/OFF object**. When the Lighting time delay has elapsed, either no command, or an OFF or ON command is sent on the bus.

→ Parameter Setting screen



Screen 3

Designation	Description	Value
Function Presence / Absence	This parameter defines the command to be sent upon a Presence or Absence detection. The command for Absence will be sent after the Switch OFF delay has elapsed.	OFF, ON, OFF / ON ON / OFF. Default value: ON / OFF

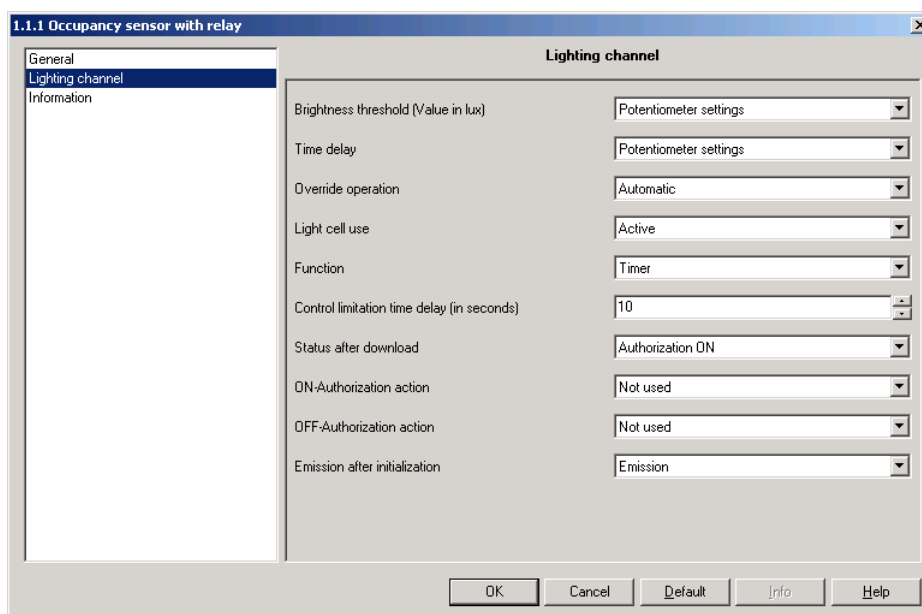
3.6.2 Timer function

The Timer function allows switching ON a switching output (lighting circuit) for a time adjustable in the switching output in case of a Presence.

The **Timer function** sends commands via the **Timer object**.

Description: Upon Presence detection, the motion detector sends an ON command on the bus via the **Timer object**. Then sending of commands is locked for the time set in the **Control limitation time delay** parameter. This means that, even in the case of Presence detection, no commands will be sent during this delay. When this timer has elapsed, the motion detector will send again an ON command on the bus in the case of Presence detection, and the locking time will start again.

→ Parameter Setting screen



Screen 4

Designation	Description	Value
Control limitation time delay (in seconds)	This parameter sets the minimum possible time between two telegrams from the Timing object.	From 1 to 30 s by steps of 1 s Default value: 10 s

3.6.3 Brightness value and Brightness value Presence/Absence

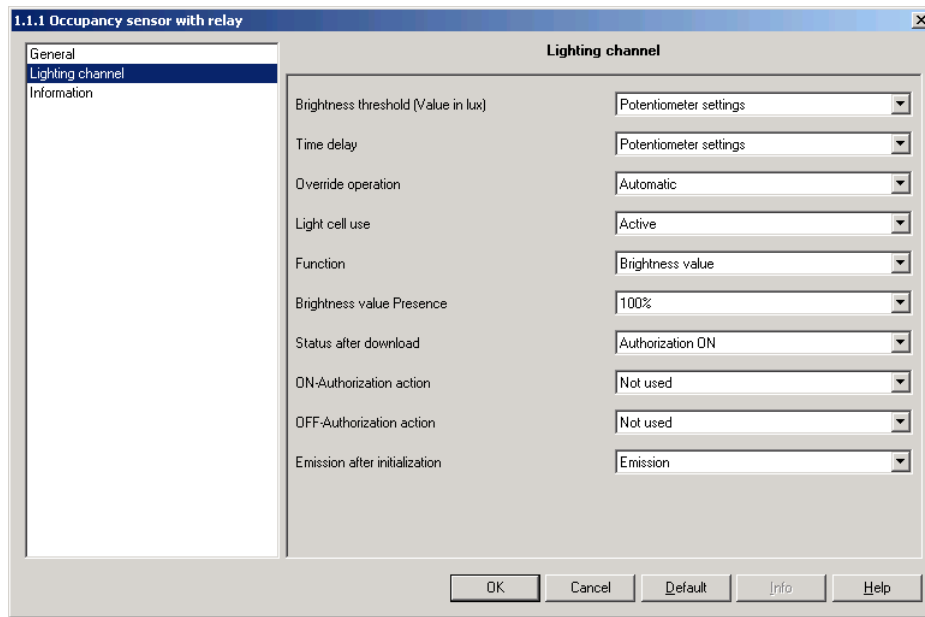
The **Brightness value Presence function** sets a dimming output to a predefined value (%) in the case of a presence.

The **Brightness value Presence/Absence** function sets a dimming output to a value in the case of a presence and to another level value in the case of an absence.

The **Brightness value** and **Brightness value Presence/Absence** functions send commands on the bus via the **Brightness value object**.

According to the setting of the parameters, when switching from Absence to Presence, the **Brightness value** (Presence) in % is sent on the bus via the **Brightness value object**. When the **Lighting time delay** has elapsed (or enough daylight), either no command, or the **Brightness value** (Absence) in % is sent on the bus.

→ Parameter Setting screen



Screen 5

Designation	Description	Value
Brightness value Presence	This parameter defines the illumination value in Presence mode.	0% - 100% in 1% steps Default value: 100 %
Brightness value Absence *	This parameter defines the illumination value in Absence mode (after the Switch OFF delay has elapsed).	0% - 100% in 1% steps Default value: 0 %

* This parameter is only visible if the **Function** parameter has following value: Brightness value Presence/Absence

3.6.4 Scene and Scene Presence/Absence functions

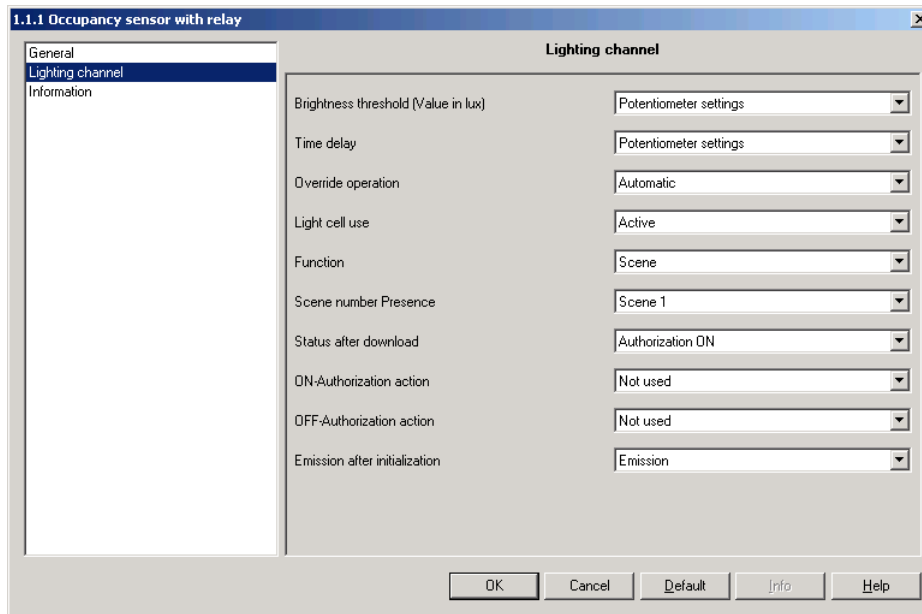
The **Scene function** allows calling a scene in the case of a presence (e. g. various light circuits ON, others dimmed, heating ON).

The **Scene Presence/Absence function** allows calling one scene in the case of a presence and another scene in the case of an absence.

The **Scene Absence** and **Scene Presence/Absence functions** send, in the case of presence and absence, commands via the **Scene object**.

According to the setting, when switching from Absence to Presence, the Scene number (Presence) is sent on the bus via the **Scene object**. When the **Lighting time delay** has elapsed (or enough daylight), either no command, or the Scene number (Absence) is sent on the bus.

→ Parameter Setting screen



Screen 6

Designation	Description	Value
Scene number Presence	This parameter defines the scene in Presence mode.	Scene 1 - Scene 32 Default value: Scene 1
Scene number Absence*	This parameter defines the scene in Absence mode.	Scene 1 - Scene 32 Default value: Scene 2

* This parameter is only visible if the **Function** parameter has following value: Scene Presence / Absence.

3.6.5 ON and OFF Authorization actions-Lighting channel

The ON Authorization action and OFF Authorization action parameters define the behaviour of the presence detector on the Lighting channel after the authorization (ON authorization) and after the inhibition (OFF authorization).

Activation:

When Activation is selected, after having received the authorization command (authorization or inhibition), the presence detector sends the command for motion (Presence) on the bus.

The sent command depends on the function set.

Example:

1. The selected function is ON/OFF and the command for Presence/Absence is ON/OFF.
In this case, the motion detector sends an ON command on the bus via the **ON/OFF object** after having received the authorization command.
2. The selected function is Scene Presence/Absence and the scene number for Presence is scene 1. In this case, the presence sends the call for scene 1 on the bus via the Scene object after having received the authorization command.

Deactivation:

When Deactivation is selected, the presence detector sends, after having received the authorization command (authorization or inhibition) the command for no motion (Absence) on the bus.

The sent command depends on the function set.

Example:

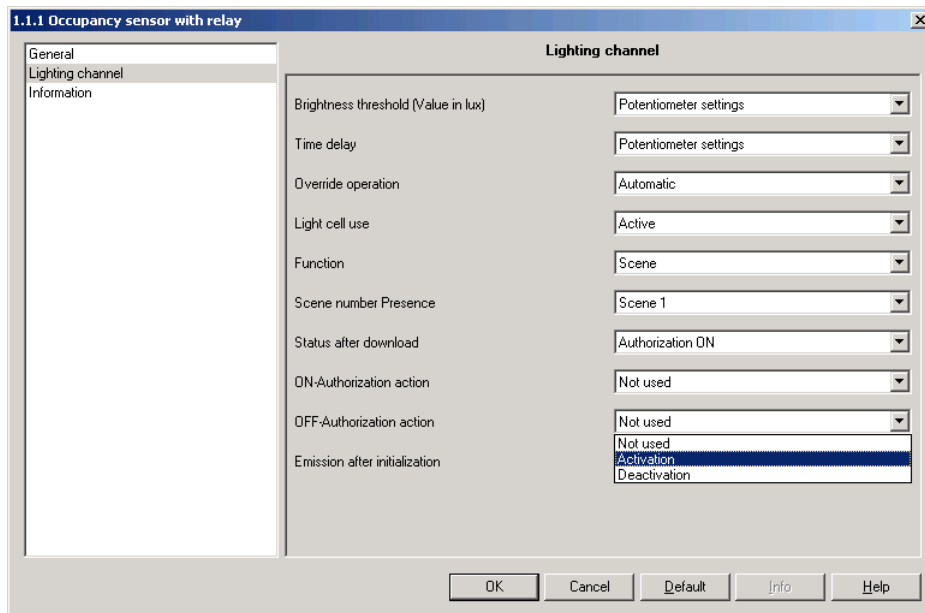
1. The selected function is ON/OFF and the command for Presence/Absence is ON/OFF.
In this case, the motion detector sends an OFF command on the bus via the **ON/OFF object** after having received the authorization command.
2. The selected function is Scene Presence/Absence and the scene number for Presence is scene 2. In this case, the presence sends the call for scene 2 on the bus via the Scene object after having received the authorization command.

No emission:

When No emission is selected, the motion detector sends, after having received the authorization command (authorization or inhibition), neither the command for motion (Presence), nor the command for no motion (Absence) on the bus.

Designation	Description	Value
ON-Authorization action	This parameter defines the behaviour of the motion detector after having received the Authorization ON (authorization) command.	Not used, Activation, Deactivation Default value: Not used
OFF-Authorization action	This parameter defines the behaviour of the motion detector after having received the Authorization OFF (inhibition) command.	Not used, Activation, Deactivation Default value: Not used

→ Parameter Setting screen



Screen 7

3.6.6 Emission after initialization

The **emission after initialisation** parameter defines whether the motion detector will send the current status (according to the function set ON/OFF, Scene number or Brightness) via the Lighting channel after power restoration or not. 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.	Not used, Emission Default value: Emission

4. Configuration and parameters of the Output: Direct control via KNX

4.1 Main functions overview

When the local load control is activated, the available functionalities are the same as the one implemented in our TXA output actuator range (ON / OFF, Timer, Time limited toggle switch, Priority, Jamming, Scene, Timer and Automatic controls, Hours counter). The main functions are the following:

■ ON / OFF

The **ON/OFF function** is used to switch a lighting circuit ON or OFF.
The command may come from switches, pushbuttons or automatic controls.

■ Status indication

The Status indication function displays the status of the output contact. It allows a toggle function to be created by sending the status indication to each push button of the group.

■ Timer

The **Timer function** is used to switch a lighting circuit ON or OFF for an adjustable time. Depending on the operation mode selected, the output may be delayed for ON or OFF switching. The timer can be interrupted before the end of the delay time. An adjustable cut-OFF pre-warning indicates the end of the delay time by inverting the status of the output for 1 sec.

■ Time limited toggle switch

The Time delayed switch function combines a toggle function and a cut-OFF delay. Pressing briefly a push button inverts the output. If the output is ON, it switches automatically to OFF after a programmable delay time (energy savings).
Application: lighting of attics, cellars, sheds, etc.

■ Priority

The **Priority function** allows overriding an output to a definite status, ON or OFF.
This command has the highest priority. No other command is taken into account if a priority is active. Only a priority end command re-enables the other commands.
Application: Maintaining lighting ON for safety reasons.

■ Jamming

The **Jamming function** allows locking an output in its current status. This command has priority, but at a lower level than the **Priority function**. Jamming forbids any action until a jamming end command is sent. The jamming duration can be delayed.

■ Scene

The **Scene function** groups a set of outputs. These outputs can be set to an adjustable predefined status.
Pressing a single push button activates a scene. Each output may be integrated into 32 different scenes.

■ Timer and Automatic controls

The **Timer and Automatic controls function** allow the outputs to be controlled by:

- Timer functions: Timer/toggle switch change over, Switching delay, Tripping delay, Switching and tripping delay, Timer.
- Automatic control functions: Authorization, AND or OR.

■ Metering

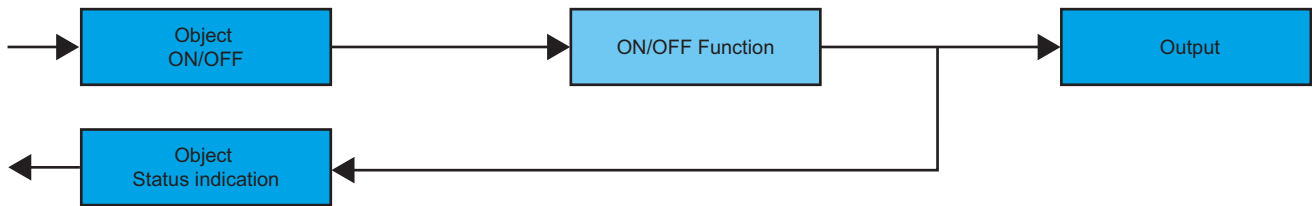
The **metering function** allows counting the ON or OFF time of an output. A set-point triggering an alarm may be programmed.

4.2 Function Description

4.2.1 ON / OFF functions and Status indication

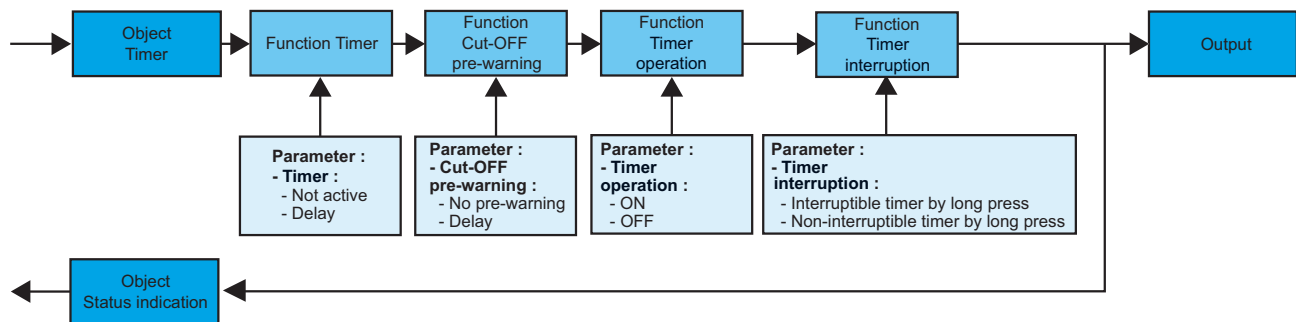
The **ON / OFF function** is used to switch the output ON or OFF using the **ON / OFF object**. The status of the output depends on the activation of other functions and of the associated parameters: Priority, Output type, Automatic controls, Scene, etc.

The status of the output is indicated on the bus by the **Status indication** object.
The physical status of the output is indicated on the bus by the **Status indication** object.

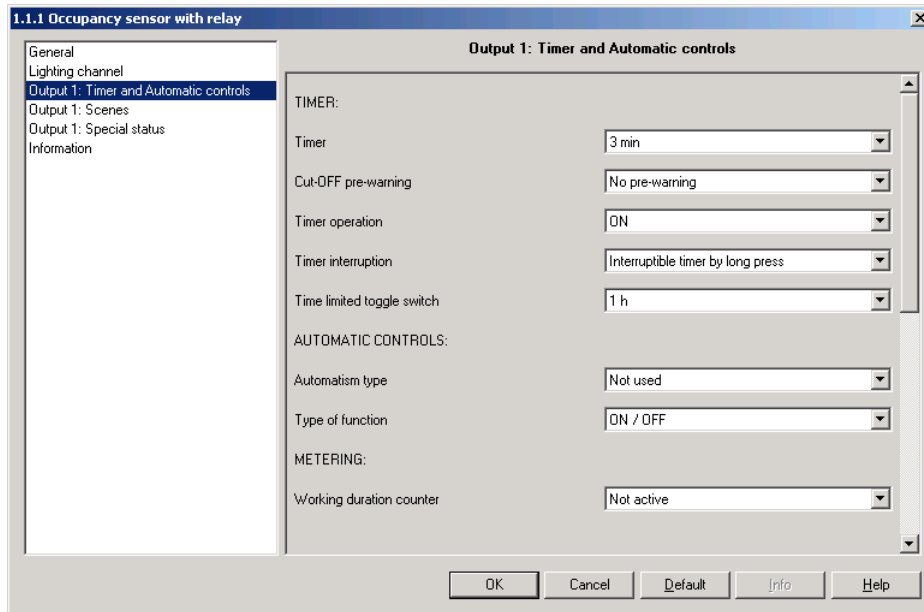


4.2.2 Timer function

The **Timer function** is used to switch a lighting circuit ON or OFF for an adjustable time. The function is started by the **Timer object**.



→ Parameter Setting screen



Screen 8

Designation	Description	Value
Timer	This parameter defines the length of the delay time.	Not active, Range [0.5 s 24 h] * Default value: 3 min
Cut-OFF pre-warning (for ON operation)	When the pre-warning is active, the output switches to OFF for 1 sec. The parameter value defines the time before the end of the delay time, when the pre-warning will be applied.	No pre-warning, 15 s, 30 s, 1 min. Default value: No pre-warning
Timer operation	This parameter defines whether the delay time triggers an ON or an OFF status.	ON, OFF Default value: ON
Timer interruption	This parameter allows or not the interruption of the timer when the associated push button is pressed for a long time .	Interruptible timer by long press, Non-interruptible timer by long press Default value: Interruptible timer by long press

* Setting range [0.5 s 24 h]

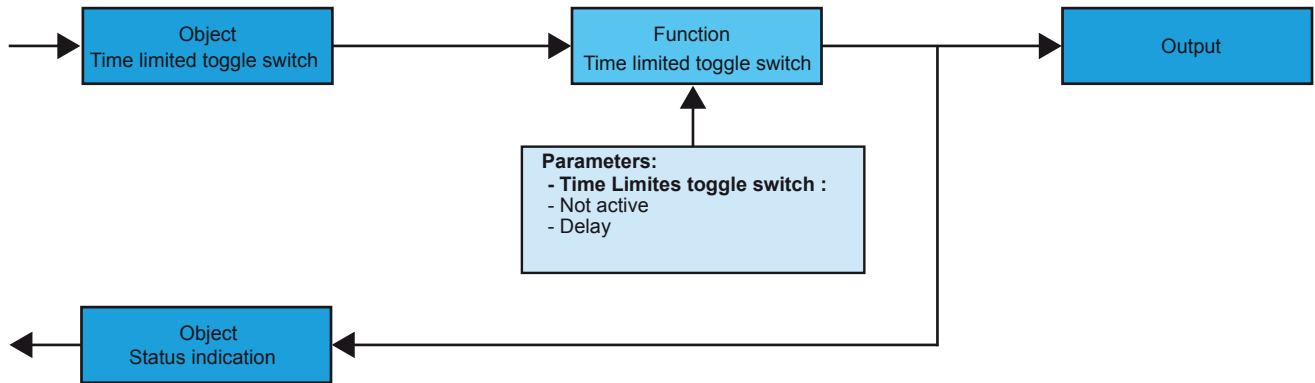
0.5 s, 1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 30 s, 40 s, 45 s, 50 s, 1 min, 1 min 15 s, 1 min 30 s, 2 min, 2 min 30 s, 3 min, 4 min, 5 min, 6 min, 7 min, 8 min, 9 min, 10 min, 11 min, 12 min, 13 min, 14 min, 15 min, 20 min, 30 min, 40 min, 50 min, 1 h, 1 h 30 min, 2 h, 2 h 30 min, 3 h, 3 h 30 min, 4 h, 5 h, 6 h, 12 h, 24 h.

Remark:

- **Timer commands** Repeated n times during the first ten seconds after the beginning of the delay time multiply the duration of the delay time by n times the value of the **Timer parameter**.
- **Timer commands** repeated n times within 10 seconds after the beginning of the delay time restart the timer only once.

4.2.3 Time limited toggle switch function

The **Time limited toggle switch function** allows a toggle with a settable switch-OFF delay time to be created (energy savings). This function is started by the **Time limited toggle switch object**.



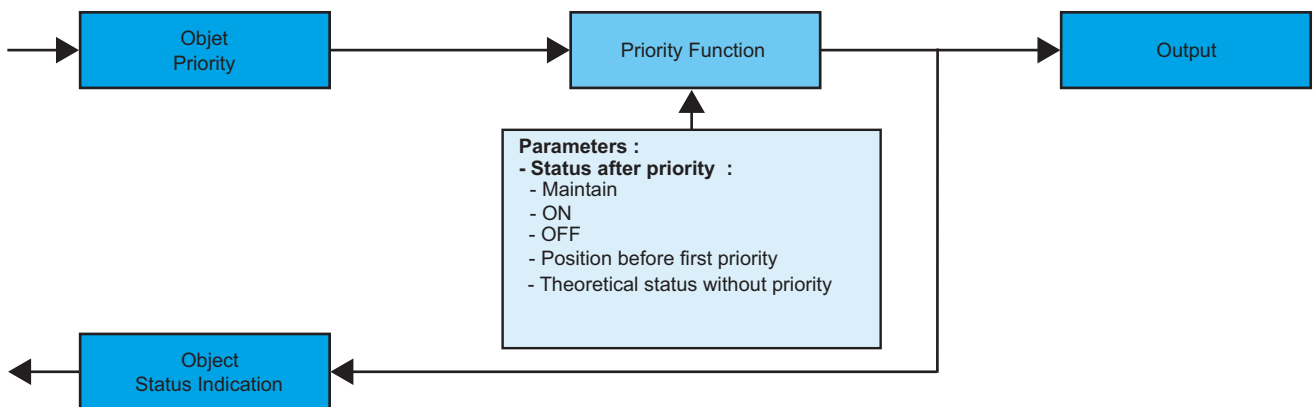
Designation	Description	Value
Time limited toggle switch	This parameter defines the duration of the switch-OFF delay time.	Not active, Range [0.5 s 24 h] * Default value: 1 h

* Setting range [0.5 s 24 h]

0.5 s, 1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 30 s, 40 s, 45 s, 50 s, 1 min, 1 min 15 s, 1 min 30 s, 2 min, 2 min 30 s, 3 min, 4 min, 5 min, 6 min, 7 min, 8 min, 9 min, 10 min, 11 min, 12 min, 13 min, 14 min, 15 min, 20 min, 30 min, 40 min, 50 min, 1 h, 1 h 30 min, 2 h, 2 h 30 min, 3 h, 3 h 30 min, 4 h, 5 h, 6 h, 12 h, 24 h.

4.2.4 Priority function

The **Priority function** allows the outputs to be forced and maintained at a definite ON or OFF status imposed by the input. This function is started by the **Priority object**. **Priority** is the function with the highest priority. Only a priority-end command ends the **Priority** and re-authorizes the bus commands to be taken into consideration.

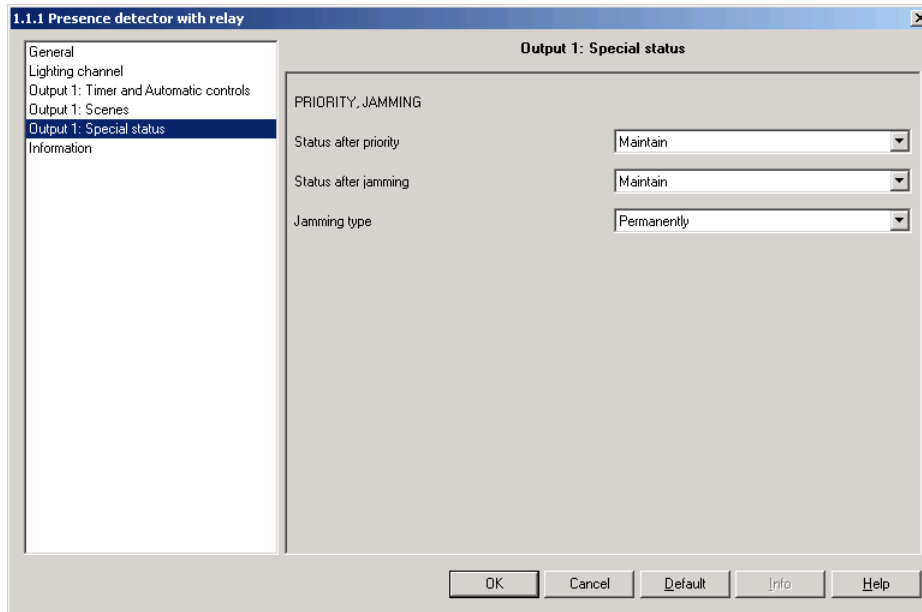


→ Description of the **Priority object**

Bit 1	Bit 0
Output behaviour	

Output behaviour	00 = Priority end 01 = Priority end 10 = Priority OFF 11 = Priority ON
------------------	---------------------------------------------------------------------------------

→ Parameter Setting screen

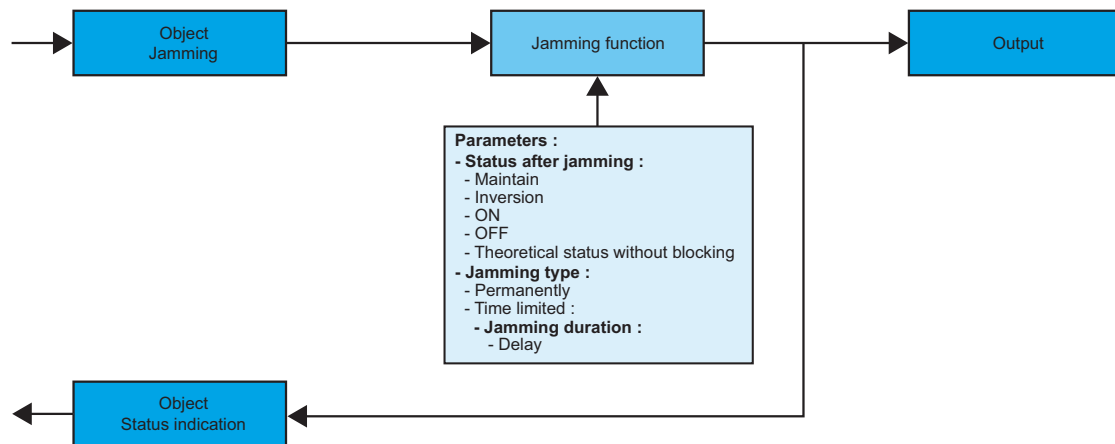


Screen 9

Designation	Description	Value
Status after priority	This parameter defines the output status to be applied at the end of the Priority.	Maintain, Inversion, ON, OFF, Status before priority, Theoretical status without priority. <ul style="list-style-type: none"> - Maintain: Maintains the output at the status active during Priority. - Inversion: Inversion of the output's status with regards to the status active during Priority (ON to OFF and OFF to ON). - ON: Switches the output to ON. - OFF: Switches the output to OFF. - Status before priority: Switches the output to the status active before the Priority command. - Theoretical status without priority: Switches the output to the status that would be active if no Priority command had occurred. Default value: Maintain

4.2.5 Jamming function

The **Jamming function** allows the outputs to be locked in their current status. This function is started by the **Jamming** object. The **Jamming function** is the function with the second highest priority after **Priority**. A **Jamming end** command ends the jamming and allows again taking the commands from the bus into consideration. A **Priority** command ends the **Jamming**.



Designation	Description	Value
Status after jamming	This parameter defines the output status to be applied at the end of the Jamming.	Maintain, Inversion, ON, OFF, Theoretical status without blocking. - Maintain: Maintains the output at the status active during Jamming. - Inversion: Inversion of the output status with regards to the status active during Jamming (ON to OFF and OFF to ON). - ON: Switches the output to ON. - OFF: Switches the output to OFF. - Theoretical status without blocking: Switches the output to the status that would be active if no Jamming command had occurred. Default value: Maintain
Jamming type	This parameter defines whether Jamming is permanent or time limited.	Permanently, Time limited. - Time limited: Jamming is active for a parameterisable limited duration. Default value: Permanently
Jamming duration **	This parameter defines the Jamming duration	Range [0 s 24 h] * Default value: 1 h

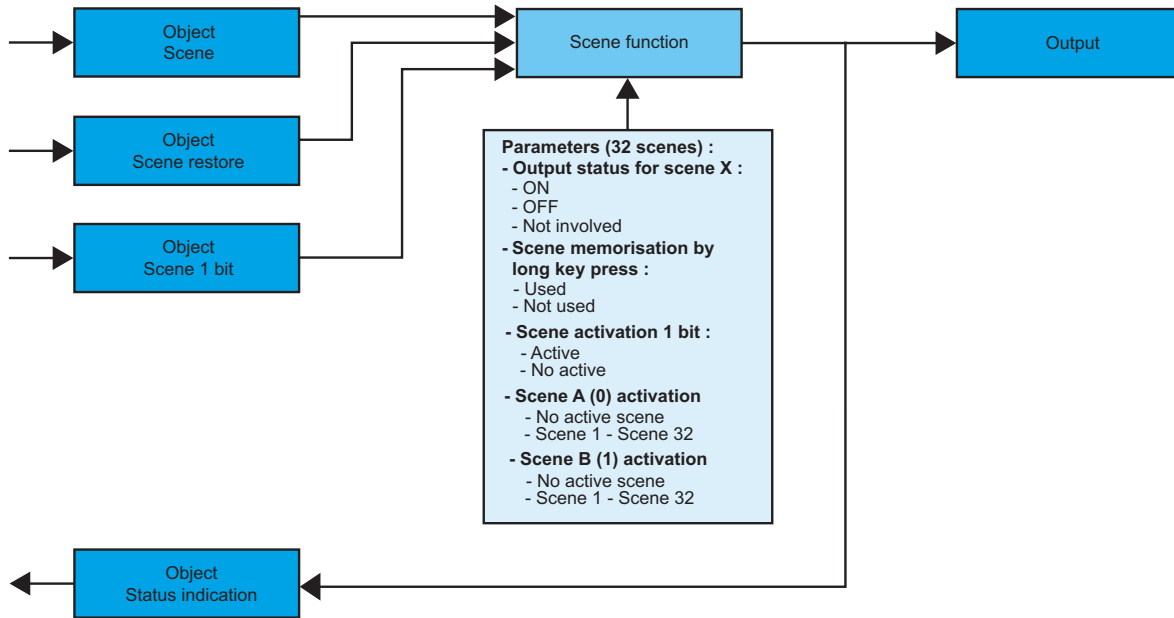
* Setting range [0 s 24 h]
 0 s, 0.5 s, 1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 30 s, 40 s, 45 s, 50 s, 1 min, 1 min 15 s, 1 min 30 s, 2 min, 2 min 30 s, 3 min, 4 min, 5 min, 6 min, 7 min, 8 min, 9 min, 10 min, 11 min, 12 min, 13 min, 14 min, 15 min, 20 min, 30 min, 40 min, 50 min, 1 h, 1 h 30 min, 2 h, 2 h 30 min, 3 h, 3 h 30 min, 4 h, 5 h, 6 h, 12 h, 24 h.

** This parameter is only visible if the **Jamming type parameter** has following value: Time limited.

4.2.6 Scene function

A scene is used to control a group of outputs. Each of the outputs in the group will be set to a status pre-defined for the scene. The group of outputs is created beforehand by establishing the link between the outputs that must belong to the scene and the push button that will trigger the scene. Each output may be integrated into 32 different scenes. The status of each output may be defined by parameterising, by learning in the room using the push buttons of the installation or on the product.

A. Configuration and storing by parameterisation



→ Description of **Scene** object (1 byte)

7	6	5	4	3	2	1	0
Learn	X	Scene number					

Designation	Description	Value
Output status for scene X	This parameter defines the status of the output associated to scene X.	ON, OFF, Not involved, - Remark: If the value of the parameter is Not involved, the scene will not influence this output. Default value: ON
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
Scene activation 1 bit	This parameter allows 2 of the 32 possible scenes to be activated, with the help of the 1-bit Scene object .	Not active, Active Default value: Not active
Scene A (0) activation / Scene B (1) activation *	When the parameter Scene activation 1 bit has the value Active, the parameters Scene activation A and Scene activation B must be set. These parameters define the scenes to be activated for the two values of the Scene 1 bit object .	No active scene, Scene 1 - Scene 32 Default value: No active scene

* This parameter is only visible if the **Scene activation 1 bit** parameter has following value: Active

Remark: A **Scenes restore object**, parameterised in the general screen, allows the values linked with the outputs to be restored at the last download (see paragraph General parameters).

B. Learning and storing in the room

This procedure modifies and stores a scene by local action on the push buttons located in the room.

- Activate the scene by pressing briefly on the room push button that triggers the scene.
- Set the outputs to the desired status using the push buttons that control them individually.
- Store the output statuses by pressing the room push button that triggers the scene for longer than 5 s. The storage is indicated by the status inversion of the involved outputs for 3 sec.

C. Learning and storing on the product

This procedure allows modifying and storing a scene by means of local action on the push buttons located on the front side of the products. This procedure also allows an output to be removed from a scene (Not involved).

- Activate the scene by pressing briefly on the room push button that triggers the scene.
- Store the output statuses by pressing the room push button that triggers the scene for longer than 5 s. The storage is indicated by the status inversion of the involved outputs for 3 sec.

The switching to the learning mode is indicated by the status inversion of the involved outputs for 3 sec.

- As soon as the indicators associated with the outputs blink slowly, press briefly and repeatedly the push buttons linked with the outputs to set the outputs to the desired status.

The indicators associated with the outputs show the status chosen:

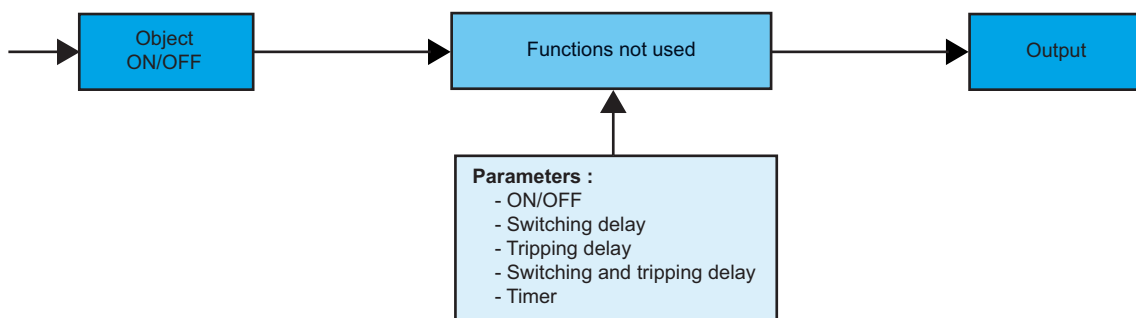
- OFF if the value selected for the scene is OFF.
- Red and continuously ON if the value selected for the scene is ON.
- Red and quickly blinking if the value selected for the scene is Not involved.
- Store the status selected for this scene pressing for a time longer than 3 sec the push button associated with the output. The storage is indicated by the return of the slow blinking of the indicators associated with the outputs.
- Repeat the previous step for each of the outputs of the scene.

4.2.7 Timer and Automatic controls

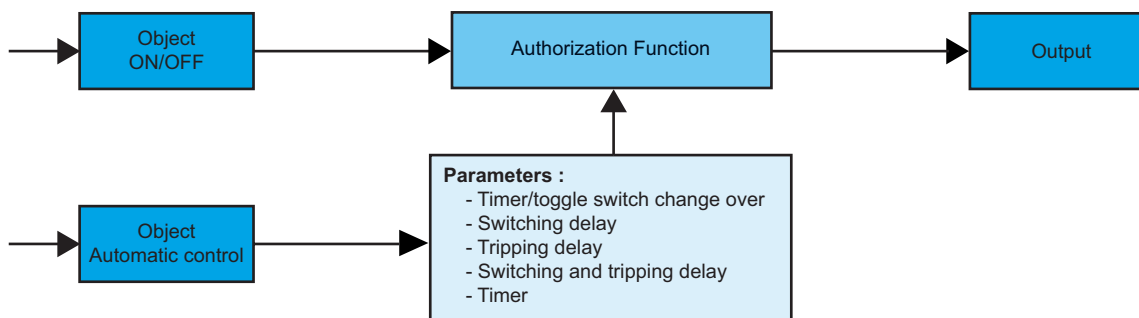
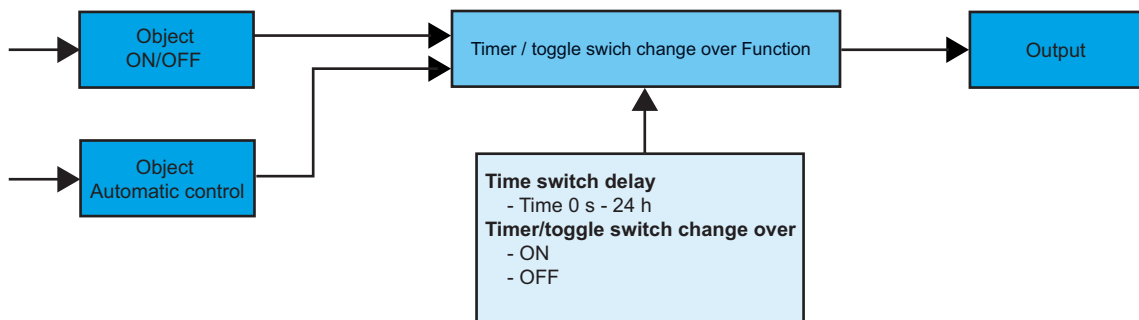
The Timer and automatic controls allow the outputs to be controlled by:

- Timer functions: ON / OFF, Switching delay, Tripping delay, Switching and tripping delay, Timer.
- Automatism type: Not used, Authorization, AND or OR.
- Parameters

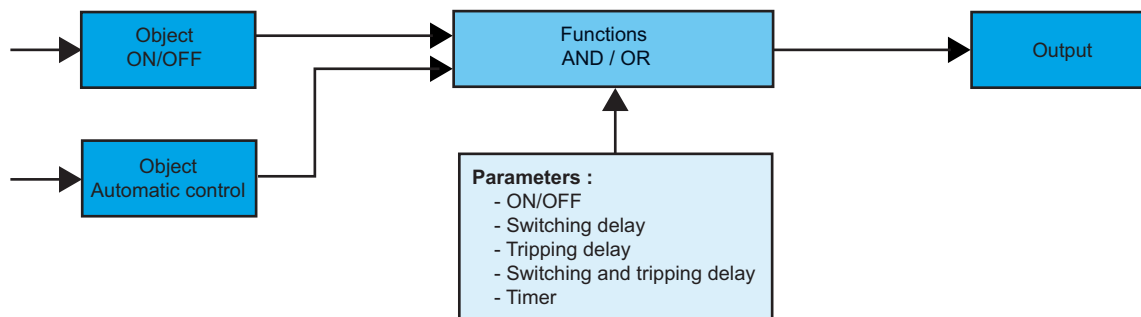
The status of the output depends on the combination of the parameters **Type of automatic control** and **Control type**.



Automatism type	Control type	Operation	Parameters
Not used (Default value)	ON / OFF (Default value)	The output is controlled directly. The Automatic control object is ignored.	
	Switching delay	The output is delayed when switching. The Automatic control object is ignored.	Switching delay : Inhibited, [0.5 s 24 h]* Default value : 3 min
	Tripping delay	The output is delayed when tripping. The Automatic control object is ignored.	Tripping delay : Inhibited, [0.5 s 24 h]* Default value : 3 min
	Switching and tripping delay	The output is delayed when switching and when tripping. The Automatic control object is ignored. The switching and tripping delay times may be different.	Switching delay : Inhibited, [0.5 s 24 h]* Default value : 3 min Tripping delay : Inhibited, [0.5 s 24 h]* Default value : 3 min
	Timer	The output is delayed for ON or for OFF The output is delayed for ON or for OFF. The Automatic control object is ignored.	Time switch delay : Inhibited, [0.5 s 24 h]* Default value : 3 min Timer operation : ON, OFF Default value : ON



Automatism type	Control type	Operation	Parameters
Authorization	Timer/toggle switch change over	The output is controlled directly by the ON / OFF object if the value of the Automatic control object is 1. The output is delayed for ON or for OFF if the value of the Automatic control object is 0.	Time switch delay : [0 s 24 h]* Default value : 3 min Timer/toggle switch change over : ON, OFF Default value : ON
	Switching delay	The output is delayed when switching if the value of the Automatic control object is 1. The commands are not taken into consideration if the value of the Automatic control object is 0.	Switching delay : [0.5 s 24 h]* Default value : 3 min
	Tripping delay	The output is delayed when switching if the value of the Automatic control object is 1. The commands are not taken into consideration if the value of the Automatic control object is 0.	Tripping delay : [0.5 s 24 h]* Default value : 3 min
	Switching and tripping delay	The output is delayed when switching and when tripping if the value of the Automatic control object is 1. The commands are not taken into consideration if the value of the Automatic control object is 0.	Switching delay : [0.5 s 24 h]* Default value : 3 min Tripping delay : [0.5 s 24 h]* Default value : 3 min
	Timer	The output is delayed if the value of the Automatic control object is 1 The commands are not taken into consideration if the value of the Automatic control object is 0.	Time switch delay : [24 h]** Default value : 3 min Timer operation : ON, OFF Default value : ON



Automatism type	Control type	Operation	Parameters
AND	ON / OFF	The output is the result of the logical AND between the value of the ON / OFF object and the value of the Automatic control object .	
	Switching delay	The output is the result of the logical AND between the value of the ON / OFF object delayed when switching and the value of the Automatic control object .	Switching delay : [0.5 s 24 h]* Default value : 3 min
	Tripping delay	The output is the result of the logical AND between the value of the ON / OFF object delayed when tripping, and the value of the Automatic control object .	Tripping delay : [0.5 s 24 h]* Default value : 3 min
	Switching and tripping delay	The output is the result of the logical AND between the value of the ON / OFF object delayed when switching and when tripping, and the value of the Automatic control object .	Switching delay : [0.5 s 24 h]* Default value : 3 min
			Tripping delay : [0.5 s 24 h]* Default value : 3 min
Timer	The output is the result of the logical AND between the value of the delayed ON / OFF object and the value of the Automatic control object .	Time switch delay : [24 h]** Default value : 3 min Timer operation : ON, OFF Default value : ON	
OR	ON / OFF	The output is the result of the logical OR between the value of the ON / OFF object and the value of the Automatic control object .	
	Switching delay	The output is the result of the logical OR between the value of the ON / OFF object delayed when switching and the value of the Automatic control object .	Switching delay : [0.5 s 24 h]* Default value : 3 min
	Tripping delay	The output is the result of the logical OR between the value of the ON / OFF object delayed when tripping, and the value of the Automatic control object .	Tripping delay : [0.5 s 24 h]* Default value : 3 min
	Switching and tripping delay	The output is the result of the logical OR between the value of the ON / OFF object delayed when switching and when tripping, and the value of the Automatic control object .	Switching delay : [0.5 s 24 h]* Default value : 3 min
			Tripping delay : [0.5 s 24 h]* Default value : 3 min
Timer	The output is the result of the logical OR between the value of the delayed ON / OFF object and the value of the Automatic control object .	Time switch delay : [24 h]** Default value : 3 min Timer operation : ON, OFF Default value : ON	

* Setting range [0.5 s 24 h]

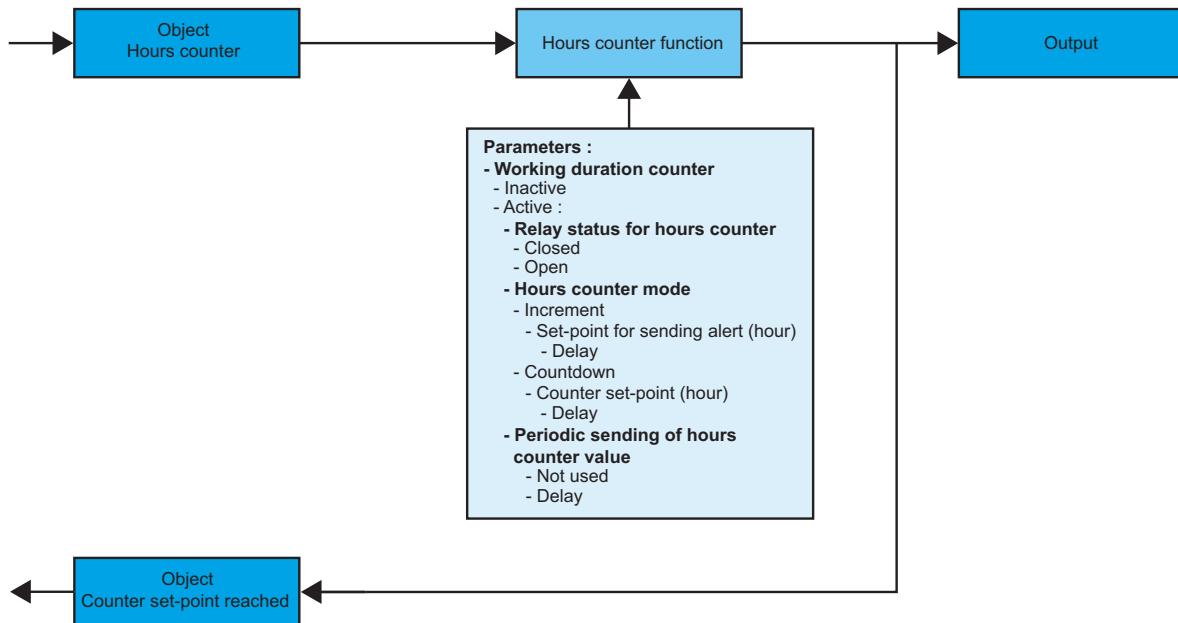
0.5 s, 1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 30 s, 40 s, 45 s, 50 s, 1 min, 1 min 15 s, 1 min 30 s, 2 min, 2 min 30 s, 3 min, 4 min, 5 min, 6 min, 7 min, 8 min, 9 min, 10 min, 11 min, 12 min, 13 min, 14 min, 15 min, 20 min, 30 min, 40 min, 50 min, 1 h, 1 h 30 min, 2 h, 2 h 30 min, 3 h, 3 h 30 min, 4 h, 5 h, 6 h, 12 h, 24 h.

** Setting range [0 s 24 h]

0 s, 0.5 s, 1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 30 s, 40 s, 45 s, 50 s, 1 min, 1 min 15 s, 1 min 30 s, 2 min, 2 min 30 s, 3 min, 4 min, 5 min, 6 min, 7 min, 8 min, 9 min, 10 min, 11 min, 12 min, 13 min, 14 min, 15 min, 20 min, 30 min, 40 min, 50 min, 1 h, 1 h 30 min, 2 h, 2 h 30 min, 3 h, 3 h 30 min, 4 h, 5 h, 6 h, 12 h, 24 h.

4.2.8 Metering

The **Metering mode** allows measuring the cumulated ON or OFF time of an output. The value is transmitted by the **Hours counter object**. A set-point triggering an alarm may be programmed. The alarm is transmitted by the **Counter set-point reached object**.



Designation	Description	Value
Working duration counter	This parameter allows activating the Counter function . The value of the counter can be read through the Hours counter object .	Not active, Active, Default value : Not active
Relay status for hours counter *	This parameter allows choosing the status of which the cumulated time is measured.	Closed, Open, Default value : Closed
Hours counter mode *	This parameter defines the hours counter mode.	Increment, Countdown, Default value : Increment
Set point for sending alert (hour) *	This parameter defines an alarm set-point for which the Counter set-point reached object will be sent.	From 0 to 10000 hours with 1-hour steps. - Remark: The Counter set-point reached object may be reset either by a new download or by means of a display tool. Default value :1000
Periodic sending of counter value *	This parameter defines the emission periodicity of the Hours counter object .	Not used, [5 s 24 h]** Default value : Not used
Counter set point (hour) *	This parameter defines the duration after which an alarm is sent.	From 0 to 10000 in 1-hour steps Default value : 1000

* This parameter is only visible if the **Counter function** parameter has following value: Active

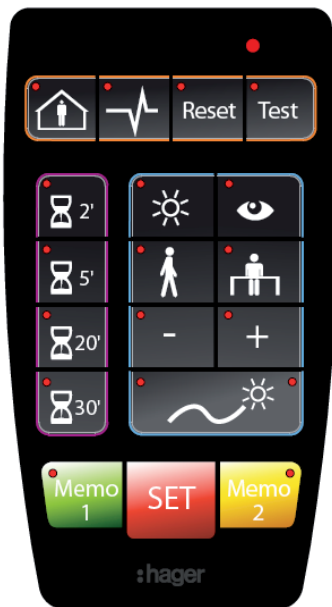
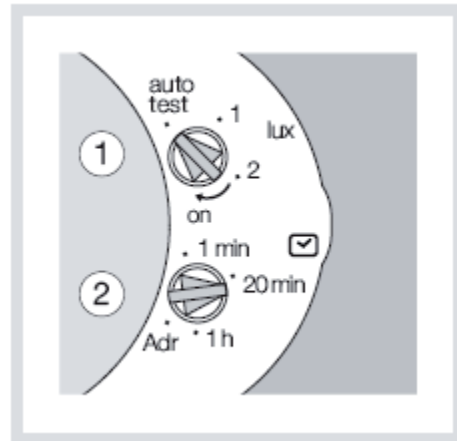
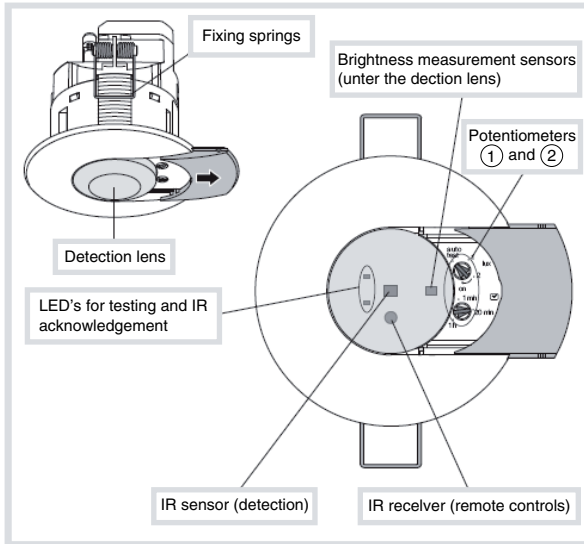
** Setting range [5 s 24 h]

5 s, 10 s, 30 s, 5 min, 10 min, 20 min, 30 min, 40 min, 50 min, 1 h, 1 h 30 min, 2 h, 2 h 30 min, 3 h, 3 h 30 min, 4 h, 5 h, 6 h, 12 h, 24 h.

5. 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 lens behind the lenses is switched-ON to indicate the **addressing mode**.



Installer remote control
EEK001/EE807

