application software

Input products / ON / OFF output / RF dimmer

Electrical / Mechanical characteristics: see product user manual

Product reference	Product designation	TP device / RF device
8534 51 xx / 61 xx	**Control module** Motion detector RF	RF device
8512 12 00 8512 11 00 8542 11 00 8542 12 00 8502 01 00	**Power module** 1 changeover output 1 changeover output 1 dimmer output 1 dimmer output Power supply	TP device

Inputs

Motion detector RF	Media coupler	Output modules KNX	Products KNX
		RF devices	Loads connected
Lighting control			
Dimming control	Gateway between the RF products and the TP products in a KNX installation	TP products	
Timer	Configuration and parameter setting of radio products by ETS		
Scene			**Visualisation system**
Master / Slave mode	Transmission of radio controls		
Status indication	Diagnosis		

ON / OFF output and Dimming

Input modules KNX	Media coupler	Output modules KNX	Products KNX

Loads connected

ON / OFF output

ON / OFF

Timer

Scene

Priority

Presence simulation

Master / Slave

Dimming output

ON / OFF

Dimming

Brightness value

Timer

Presence simulation

Scene

Master / Slave

Status indication

Brightness value indication

Gateway between the RF products and the TP products in a KNX installation

Configuration and parameter setting of radio products by ETS

Transmission of radio controls

Diagnosis

Visualisation system

Summary

1. Description of the system

1.1 General overview

All radio transmitters referred to in this document are radio quicklink products. They can be recognised by the configuration **cfg** push button with which they are all equipped. Quicklink indicates the configuration without tools mode.

These products can also be configured in E mode by the USB configurer or in S mode by ETS via the media coupler.

This document describes the configuration principle with the ETS software via the media coupler and the functions available in this mode.

Within the same installation, a single configuration mode may be used.

To re-use a product which has already been programmed in another installation, whatever the configuration mode, a factory reset must be performed on the product.

Specifics for quicklink radio transmitters:
Pressing the **cfg** button acrivates configuration mode. In this mode, the dialogue product is bi-directional. For numbering or programming operations, it will therefore no longer be necessary to bring the transmitters to be configured up to the media coupler. It is only necessary to remain within radio range.

1.2 General outline
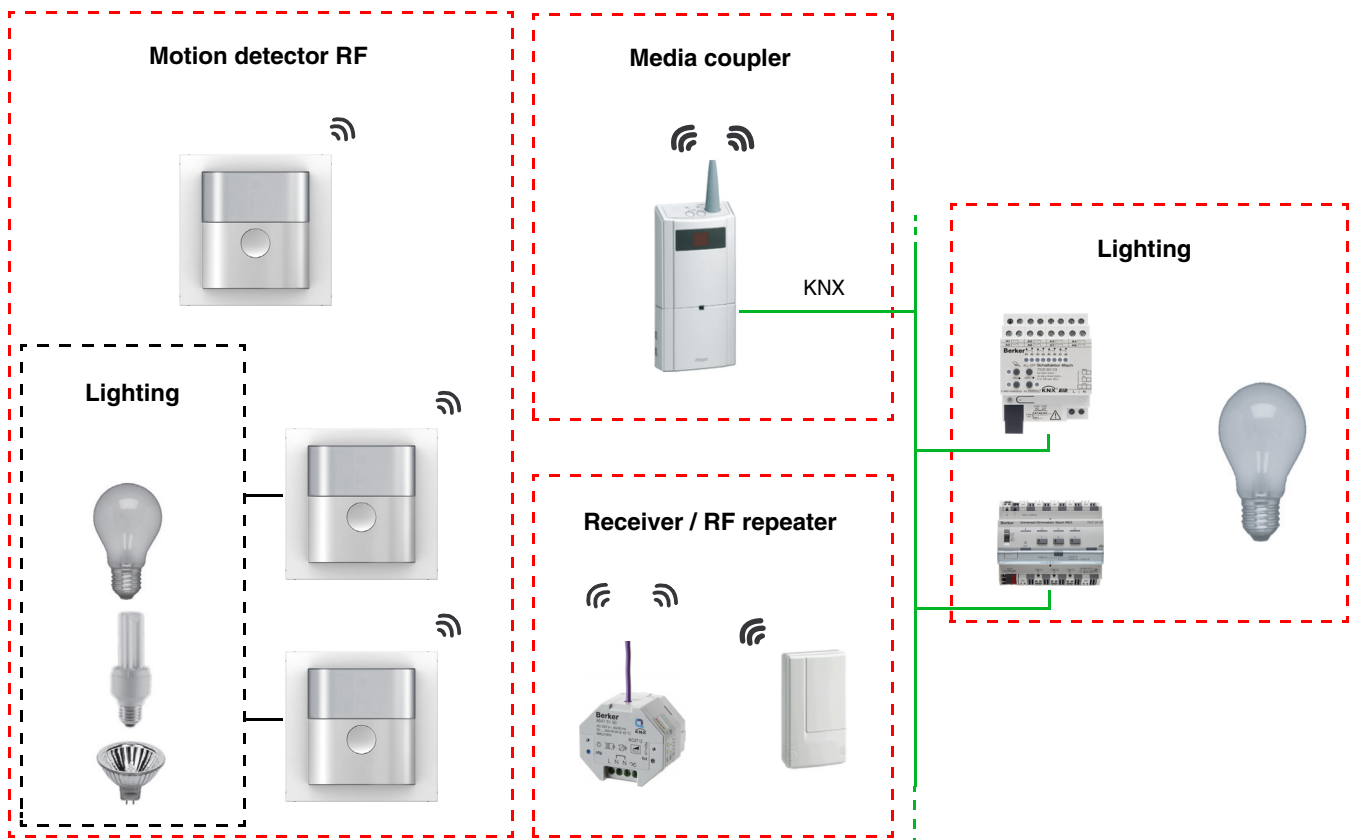
1.3 Description of the product

- **Control module**

Front face   Rear face
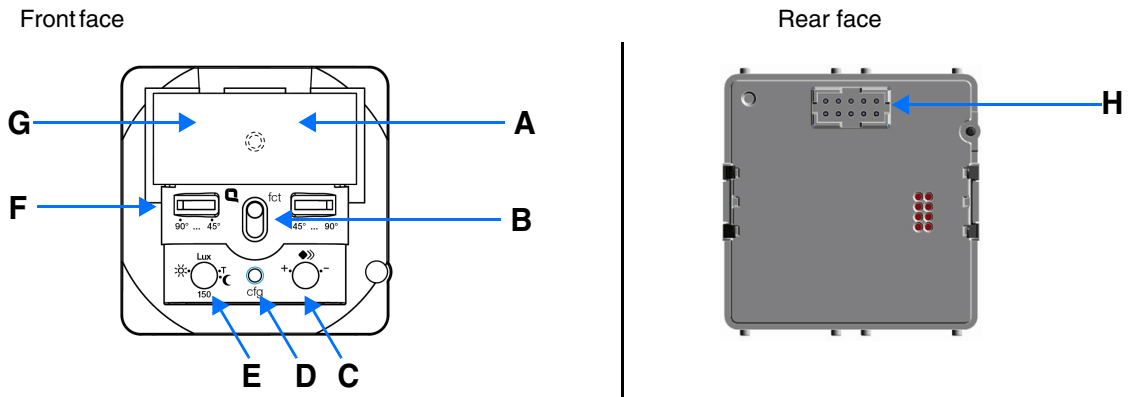
A: Function LED   D: Button and LED configuration   H: Connector
B: Button   E: Brightness threshold
C: Sensitivity   F: Adjustment of the detection angle
G: Light guide for the brightness cell

- **Power module**

Power supply   1 changeover output   1 dimmer output
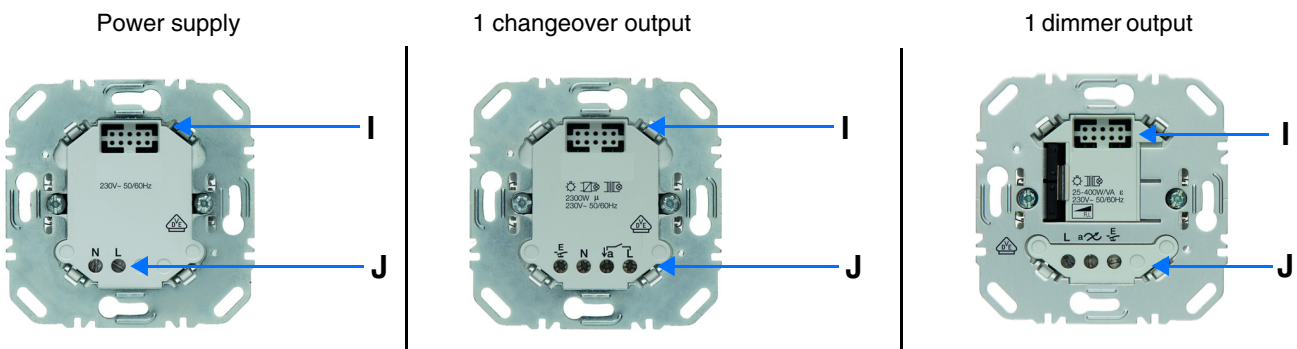
I: Connector
J: Connection terminal block

1.4 Compatibility between the control module and the power module

The table below shows the possible interconnections between the modules:

Control module	8534 51 xx / 61 xx
Power module	
8512 12 00 **8512 11 00**	Motion detector RF 1 changeover output
8542 11 00 **8542 12 00**	Motion detector RF 1 dimmer output
8502 01 00	Motion detector RF

1.5 Choice of application program in ETS

Program selection is compulsory according to the type of combination used.

- • Right click on the product in the ETS tree structure, then select **Change the application program…**,
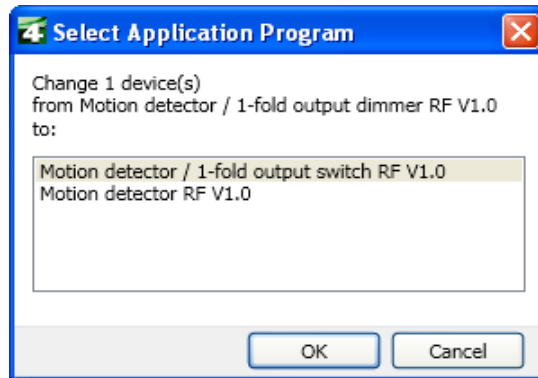
- • select the product.

1.6 Function Description

The radio detector senses the infrared radiation from the heat emitted by bodies in motion. It makes it possible to send commands for lighting, and scenes in case movement is detected (people present). A potentiometer makes it possible to limit the sensitivity of the detection so that it can be adapted to the environment. The light level can be set by a potentiometer located on the product.

1.6.1 Lighting channel

The lighting channel makes it possible to control a charge in case movement is detected, when the ambient light is below an adjustable threshold.

The main functions are the following:

■ Emission of commands
- • Lighting control
  - • ON, OFF, ON / OFF, OFF / ON, Timer
  - • Dimming (Brightness value and Brightness value Presence / Absence)

■ Scene and Scene Presence / Absence functions

The Scene function sends group controls to different kinds of outputs to create ambiences or scenarios. The Scene Presence / Absence function enables one scene to be activated when movement is present and another scene when there is no movement present.
Example of scene 1: Leaving the house (centralised lighting control OFF, shutters on south side 3 / 4 closed, the other shutters open, heating switched over to Reduced mode).

1.6.2 ON / OFF output

The application software allows you to configure individually the outputs.

The main functions are the following:

■ ON / OFF

The ON / OFF function is used to switch a lighting circuit ON or OFF. The control may come from switches, push buttons, automatic controls or the lighting channel.

■ 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 function can be interrupted via a long key press before the time delay expires.

■ 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.

■ Scene

The Scene function groups a set of outputs. These outputs can be set to an adjustable predefined status. Pressing a push button activates a scene. Each output can be integrated in 8 different scenes.

1.6.3 Dimming output

The software applications are used to configure the output for the Dimming applications.

The main functions are the following:

■ ON / OFF

The ON / OFF function is used to switch the output ON or OFF.
ON: switching on at the level of lighting active the last time the lighting was switched on.
OFF: switching OFF.
The control can come from push buttons.

■ 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.

■ Relative or absolute dimming (Brightness value)

The relative dimming allows increasing or decreasing the lighting level as long as a push button is pressed down. The absolute dimming allows defining in % the lighting level to reach by means of the **Lighting level** object.

■ 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. An adjustable cut-OFF pre-warning indicates the end of the delay time by dividing the lighting level by two. The Timer function can be interrupted via a long key press before the time delay expires.

■ Priority

The Priority function allows overriding an output to an adjustable lighting level. 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.

■ Scene

The Scene function groups a set of outputs. These outputs can be set to an adjustable predefined status. Pressing a push button activates a scene.

1.6.4 Master / Slave function

This mode enables the detection zone to be turned off by association one or more slave detectors with a master product.
Two different relations are possible for this purpose:

- Master: The detector operates in its own detection zone according to presence and the level of light,
- Slave: The detector operates in its own detection zone according to presence and transmits the presence information to a master.

The operation of the movement detector is defined by the power module associated with it.

1.7 Hardware and software required for configuration

- Windows PC with the ETS software,
  (Version 3.0f or higher or 4.0.7 or higher. Download and install the update if necessary.)
- Media coupler. The software version must meet the following characteristics:
  - Firmware: > 1.2.5
  - Plug-in: > 1.0.11
  (Check that you have administrator rights under Windows. If not you will not be able to install the media coupler plug-in.)
- Programming interface.

2. Configuration and settings

2.1 Inputs

2.1.1 Objects List

Parameters	N°	Name	Function of the object	Length	C	R	W	T
ON / OFF, Timer, Brightness value, Brightness value Presence / Absence	0	Input	Status indication	1 bit	C	R	W	-
ON / OFF	1	Input	ON / OFF	1 bit	C	R	-	T
Timer	2	Input	Timer	1 bit	C	R	-	T
Brightness value	4	Input	Brightness value	1 byte	C	R	-	T
Brightness value Presence / Absence	4	Input	Brightness value	1 byte	C	R	-	T
Scene	5	Input	Scene	1 byte	C	R	-	T
Scene Presence / Absence	5	Input	Scene	1 byte	C	R	-	T

2.1.2 Setting parameters

■ Parameter setting: Channel function

The input products send lighting and scene controls.

➜ Parameter Setting screen
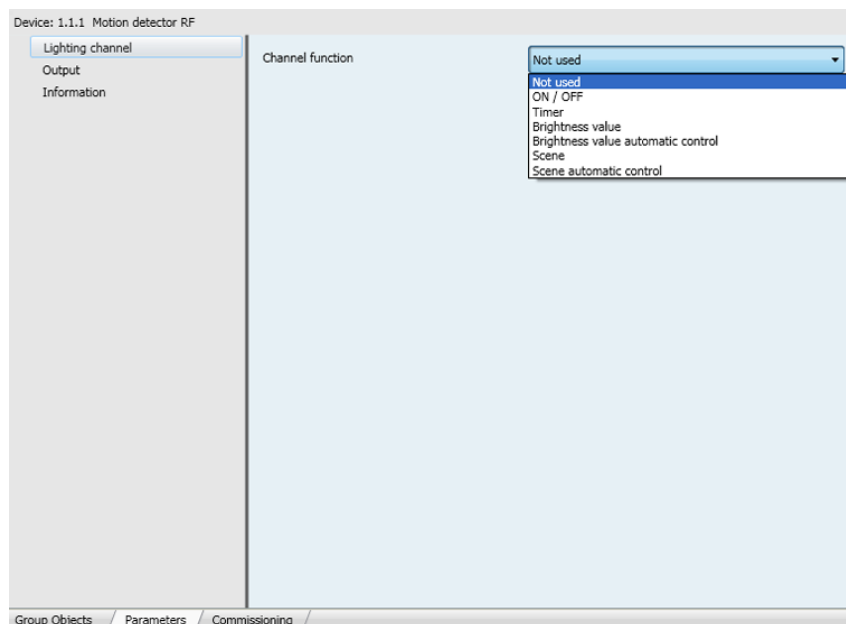
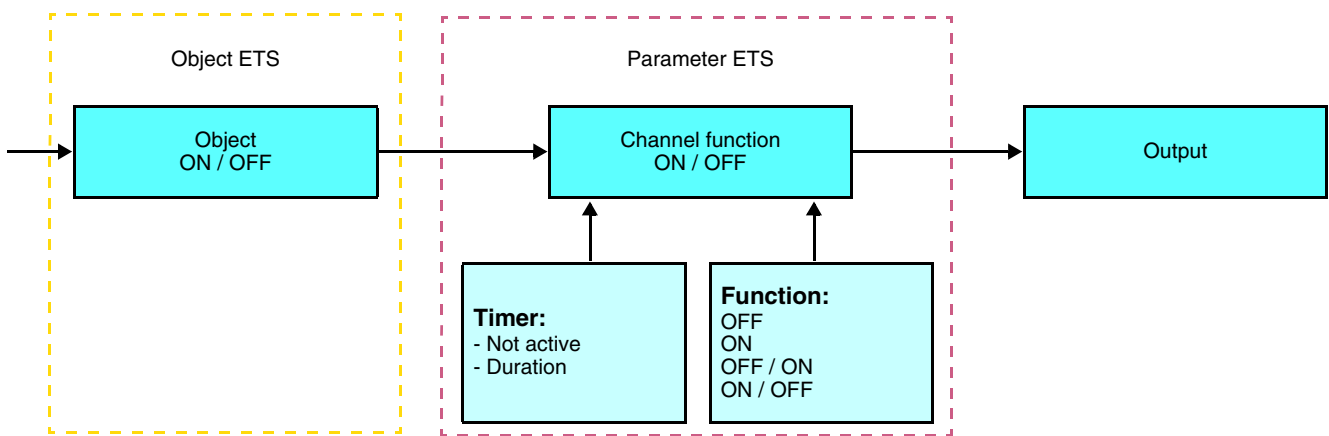| Parameter	Description	Value
Channel function	This parameter allows selecting the function associated with each input.	Not used ON / OFF Timer Brightness value Brightness value Presence / Absence Scene Scene Presence / Absence Default value: Not used

■ Channel function: ON / OFF

This function is used to switch the lighting circuit or any other load ON or OFF. The ON or OFF command will be transmitted to the bus via the **ON / OFF** object. The command to be sent (ON or OFF) can be defined in the parameters.

| Parameter	Description	Value
ON / OFF channel function	This parameter defines the command sent after valid movement detection * and, if necessary, the end of the time delay.	OFF, ON, OFF / ON, ON / OFF Default value: ON / OFF
Timer	This parameter defines the length of the delay time.	Not active, [1 s - 24 h]** Default value: 3 min

* Detection of valid movement (Presence): For the lighting channel: movement detected and ambient light below the threshold.
** Setting range [1 s - 24 h]
1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 30 s, 45 s, 1 min, 1 min 15 s, 1 min 30 s, 2 min, 2 min 30 s, 3 min, 5 min, 15 min, 20 min, 30 min, 1 h, 2 h, 3 h, 5 h, 12 h, 24 h.

■ Channel function: Timer

This function operates like a staircase light function. The timer duration is set on the output module.
The Timer function sends controls by the **Timer** object.
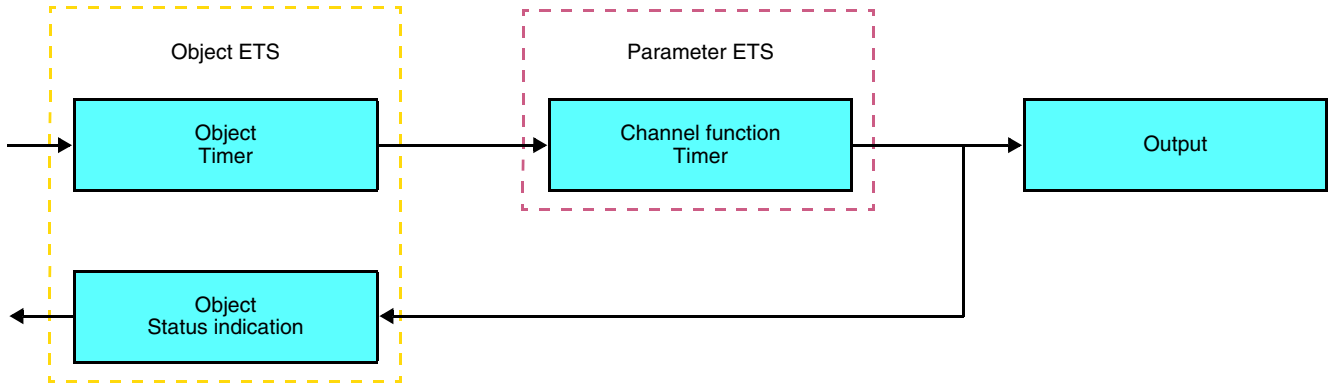
After presence detection, the movement detector sends an ON control by the **Timer** object on the bus. In the case of a timer, the time delay for turning on the light is managed by the output pilot.

Remark:
In the case of control outputs, when another ON control is received on the **Timer** object in the first 10 seconds, the lighting time delay is multiplied.

ON changeover time = (1 + Number of repeated presses) * Set time

■ Channel function: Brightness value

These functions enable commands to be sent to dim the lighting on 1 or 2 levels: A value after movement has been detected and another value at the end of the lighting time delay.

The Brightness value and Brightness value Presence / Absence functions are sent by the **Brightness value** object.

Description: There are 2 different function types: Brightness value and Brightness value Presence / Absence.

Channel function: Brightness value

This function defines a dimming output on a predefined value (%) after detection of a valid movement.
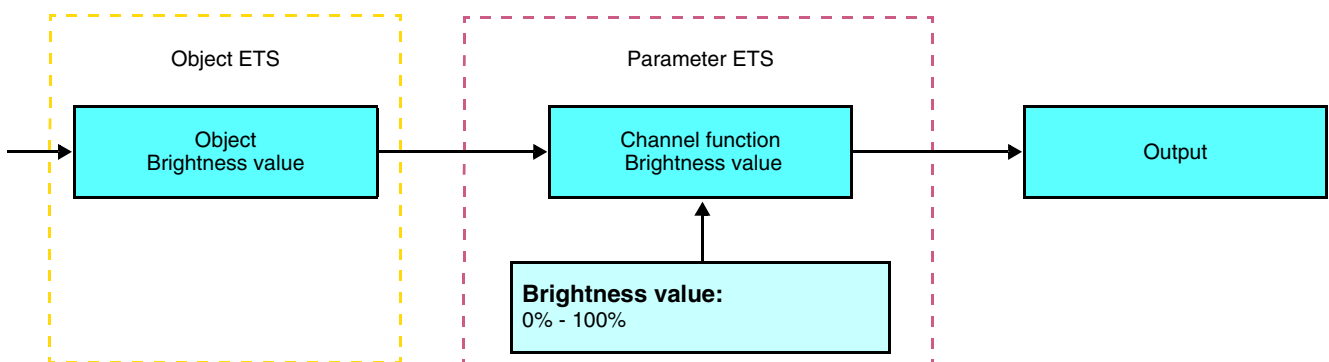
Parameter	Description	Value
Brightness value	Defines the absolute level of variation of the output after a valid movement detection.	0% to 100% in 1% steps Default value: 100%

Channel function: Brightness value Presence / Absence

This function defines a dimming output on a value after a valid movement detection and another value at the end of the time delay.

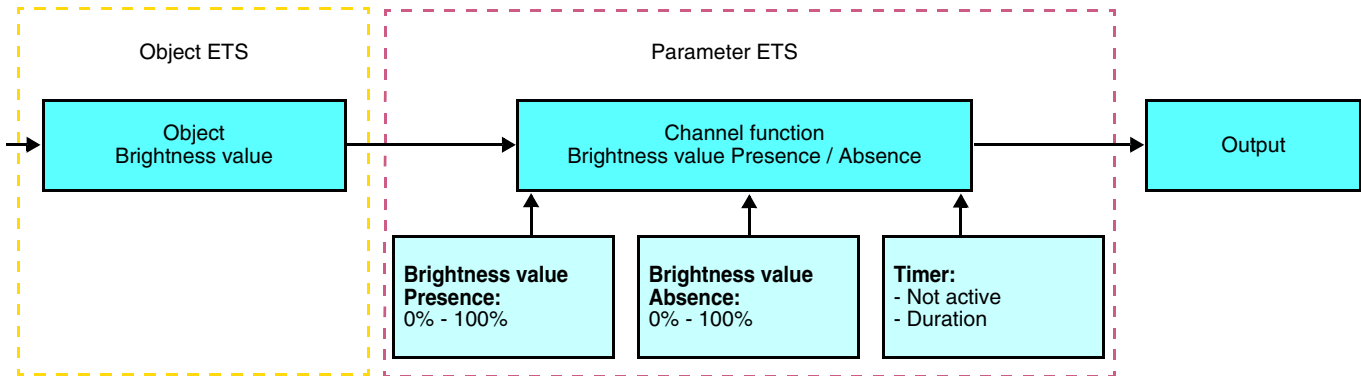| Parameter	Description	Value
Brightness value Presence	Defines the absolute level of variation of the output after a valid movement detection.	0% to 100% in 1% steps Default value: 100%
Brightness value Absence	Defines the absolute level of variation of the output at the end of the time delay.	0% to 100% in 1% steps Default value: 0%
Timer	This parameter defines the length of the delay time.	Not active, [1 s - 24 h]* Default value: 3 min

* Setting range [1 s - 24 h]
1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 30 s, 45 s, 1 min, 1 min 15 s, 1 min 30 s, 2 min, 2 min 30 s, 3 min, 5 min, 15 min, 20 min, 30 min, 1 h, 2 h, 3 h, 5 h, 12 h, 24 h.

■ Channel function: Scene
The Scene function sends group controls to different kinds of outputs to create ambiences or scenarios (leaving home scenario, reading ambience, etc.).
The value of the **Scene** object is defined by the **Scene number** parameter.
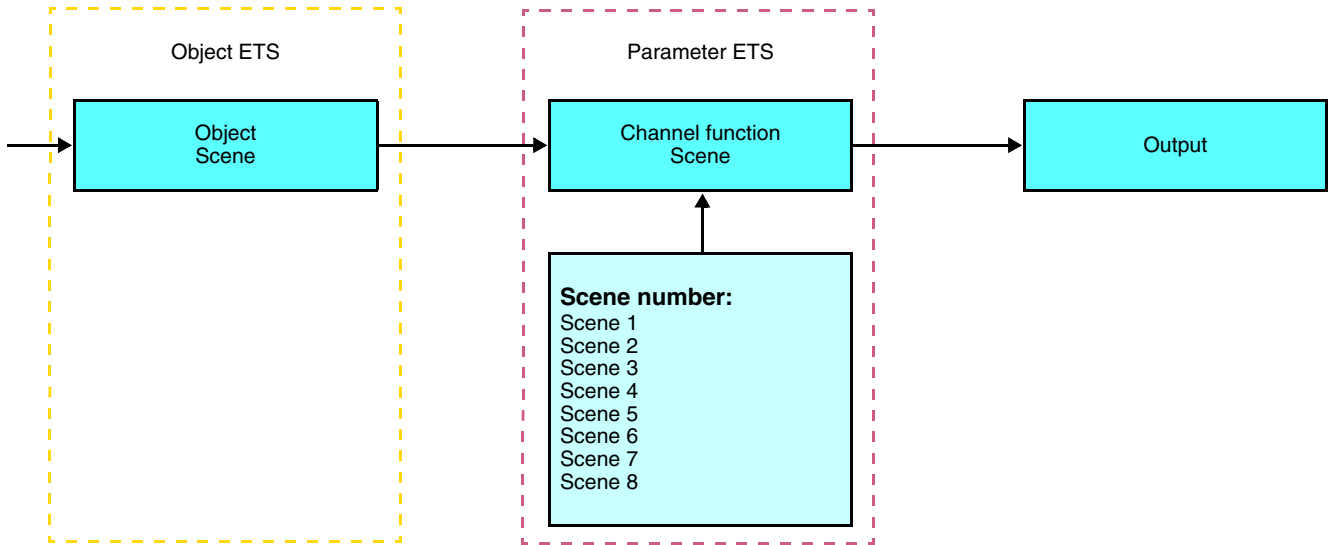
There are 2 different function types: Scene or Scene Presence / Absence

- Scene
This function calls a scene after a valid movement detection.

Description:
The scene number is sent on the bus by the Scene object after a valid movement detection.

```
┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐        ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐
        Object ETS                        Parameter ETS
┌──────────────────┐        ┌──────────────────┐        ┌──────────────────┐
│      Object      │        │  Channel function│        │     Output       │
│      Scene       │───────▶│      Scene       │───────▶│                  │
└──────────────────┘        └──────────────────┘        └──────────────────┘
                                     ▲
                            ┌──────────────────┐
                            │ Scene number:    │
                            │ Scene 1          │
                            │ Scene 2          │
                            │ Scene 3          │
                            │ Scene 4          │
                            │ Scene 5          │
                            │ Scene 6          │
                            │ Scene 7          │
                            │ Scene 8          │
                            └──────────────────┘
```
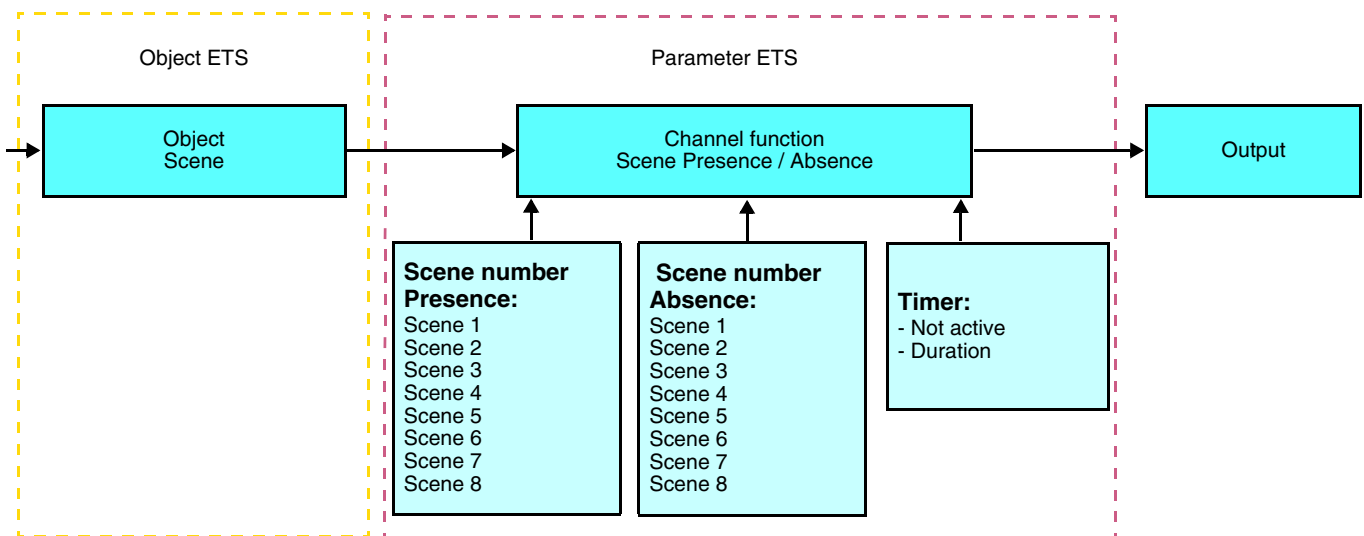
- Scene Presence / Absence

This function calls a scene after a valid movement detection and another scene at the end of the time delay.

Description:
The scene number for presence is sent on the bus by the Scene object after a valid movement detection. When the time delay expires (or if the ambient light is sufficient), the scene number for Absence is sent on the bus.

```
┌ ─ ─ ─ ─ ─ ─ ─ ─ ┐ ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐
    Object ETS                      Parameter ETS
┌──────────────┐       ┌────────────────────────────┐      ┌──────────────┐
│    Object    │       │     Channel function       │      │   Output     │
│    Scene     │──────▶│  Scene Presence / Absence  │─────▶│              │
└──────────────┘       └────────────────────────────┘      └──────────────┘
                           ▲          ▲          ▲
              ┌─────────────┐ ┌─────────────┐ ┌─────────────┐
              │Scene number │ │Scene number │ │Timer:       │
              │Presence:    │ │Absence:     │ │- Not active │
              │Scene 1      │ │Scene 1      │ │- Duration   │
              │Scene 2      │ │Scene 2      │ └─────────────┘
              │Scene 3      │ │Scene 3      │
              │Scene 4      │ │Scene 4      │
              │Scene 5      │ │Scene 5      │
              │Scene 6      │ │Scene 6      │
              │Scene 7      │ │Scene 7      │
              │Scene 8      │ │Scene 8      │
              └─────────────┘ └─────────────┘
```

Parameter	Description	Value
Scene number Presence	This parameter defines the number of the scene after detection of a valid movement.	Scene 1 to Scene 8 Default value: Scene 1
Scene number Absence	This parameter defines the number of the scene at the end of the time delay.	Scene 1 to Scene 8 Default value: Scene 2
Timer	This parameter defines the length of the delay time.	Not active, [1 s - 24 h]* Default value: 3 min

* Setting range [1 s - 24 h]
1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 30 s, 45 s, 1 min, 1 min 15 s, 1 min 30 s, 2 min, 2 min 30 s, 3 min, 5 min, 15 min, 20 min, 30 min, 1 h, 2 h, 3 h, 5 h, 12 h, 24 h.

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.

Storage is indicated by the inversion of the status of the outputs concerned for 3s.
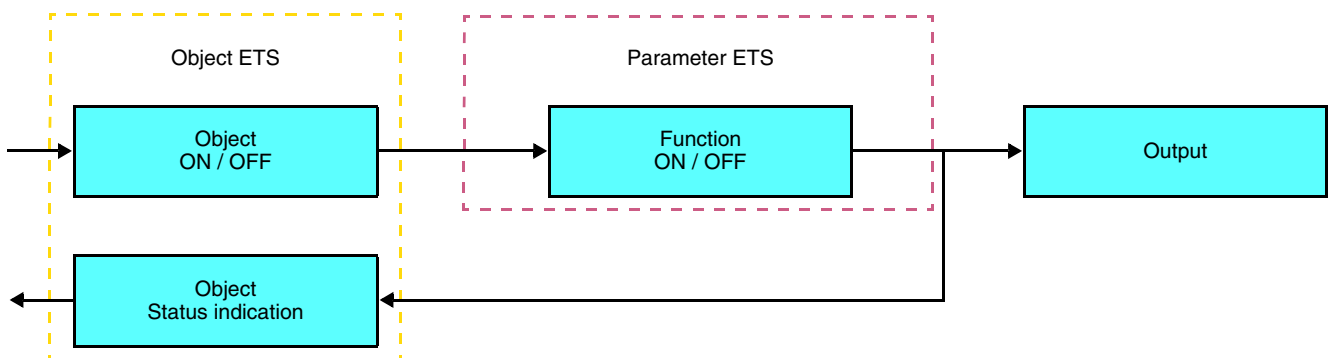
2.2 ON / OFF output

2.2.1 Objects List

N°	Name	Function of the object	Length	C	R	W	T
6	Output	ON / OFF	1 bit	C	R	W	-
7	Output	Timer	1 bit	C	R	W	-
8	Output	Priority	2 bit	C	R	W	-
9	Output	Scene	1 byte	C	R	W	-
10	Output	Status indication	1 bit	C	R	-	T

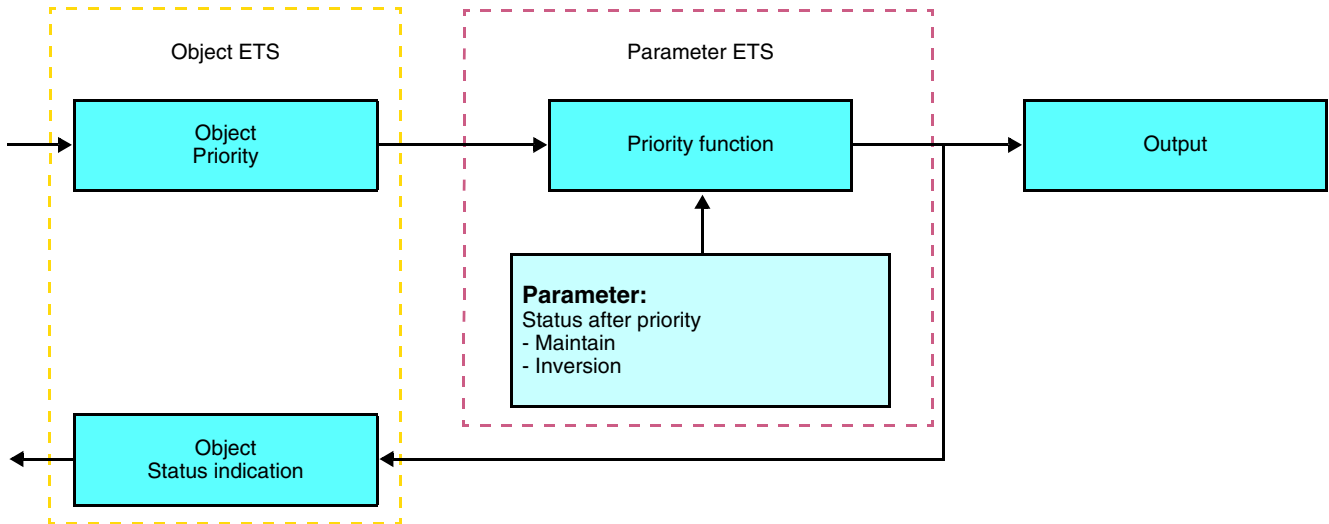### 2.2.2 Setting parameters

■ Function ON / OFF, Status indication

The ON / OFF function is used to switch the output ON or OFF. The status of the output depends on the activation of other functions and of the associated parameters: priority, timer or scene. The status of the output is indicated on the bus by the **Status indication** object.

■ 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.
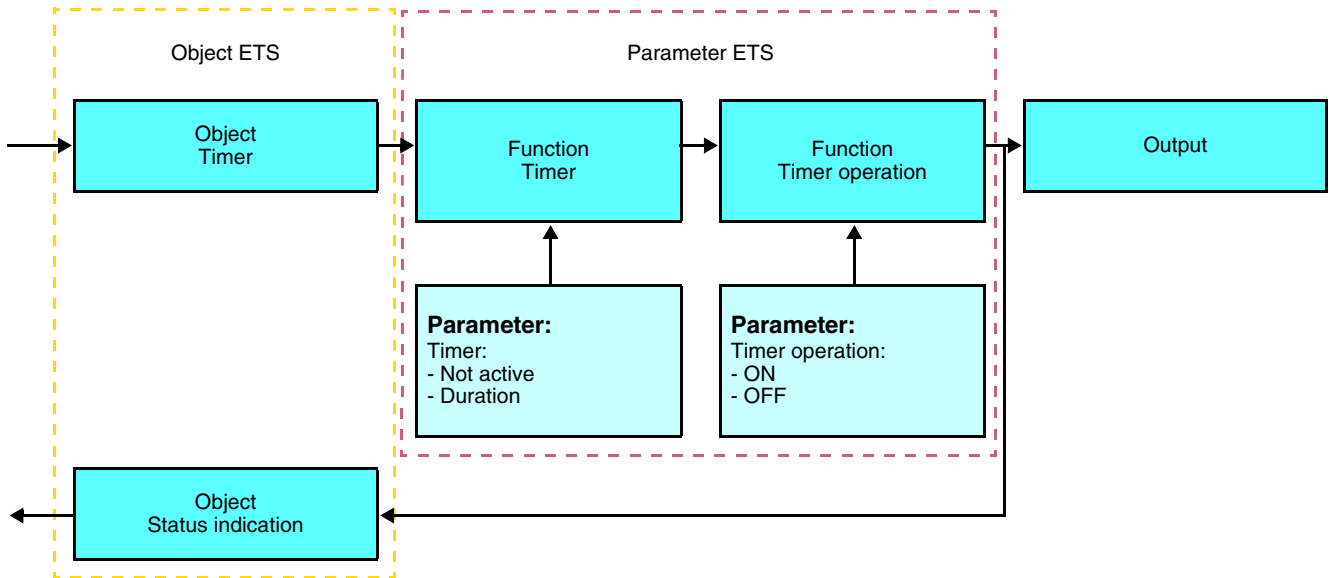
→ Parameters

Parameter	Description	Value
Timer	This parameter defines the length of the delay time.	Not active, [1 s - 24 h]* Default value: 3 min
Timer operation	This parameter defines whether the delay time triggers an ON or an OFF status.	ON, OFF Default value: ON

* Setting range [1 s - 24 h]
1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 30 s, 45 s, 1 min, 1 min 15 s, 1 min 30 s, 2 min, 2 min 30 s, 3 min, 5 min, 15 min, 20 min, 30 min, 1 h, 2 h, 3 h, 5 h, 12 h, 24 h.

■ 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 cancellation command for the priority can end the priority and authorise other commands to be followed again.

→ Description of the **Priority** object

Value	Output behaviour
00	Priority end
01	Priority end
10	Priority ON
11	Priority OFF

→ Parameters

Parameter	Description	Value
Status after priority	This parameter defines the level of lighting applied at the end of the priority.	Maintain, Inversion - Maintain: The output is maintained in the status which was active before the priority, - Inversion: Inversion of the output's status with regards to the status active during Priority (ON to OFF and OFF to ON). Default value: Maintain

■ 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.
A scene has been initiated by the object **Scene**.
The group of outputs is created in advance by establishing the link between the outputs that are to be part of the scene and the push button which initiates the scene. Each output can be integrated in 8 different scenes.

➡ Description of the **Scene** object (1 byte)

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

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.

Storage is indicated by the inversion of the status of the outputs concerned for 3s.

2.3 Dimming output

2.3.1 Objects List

N°	Name	Function of the object	Length	C	R	W	T
6	Output	ON / OFF	1 bit	C	R	W	-
7	Output	Dimming	4 bit	C	R	W	-
8	Output	Brightness value	1 byte	C	R	W	-
9	Output	Timer	1 bit	C	R	W	-
10	Output	Priority	2 bit	C	R	W	-
11	Output	Scene	1 byte	C	R	W	-
12	Output	Status indication	1 bit	C	R	-	T
13	Output	Brightness value indication	1 byte	C	R	-	T

2.3.2 Setting parameters

■ ON / OFF, Status indication and Brightness value indication functions

The ON / OFF function is used to switch the output ON or OFF:

- ON: switching on at the level of lighting active the last time the lighting was switched on.
- OFF: switching OFF.

The output status and the lighting level are indicated on the bus by the **Status indication** object and **Brightness value indication** object.
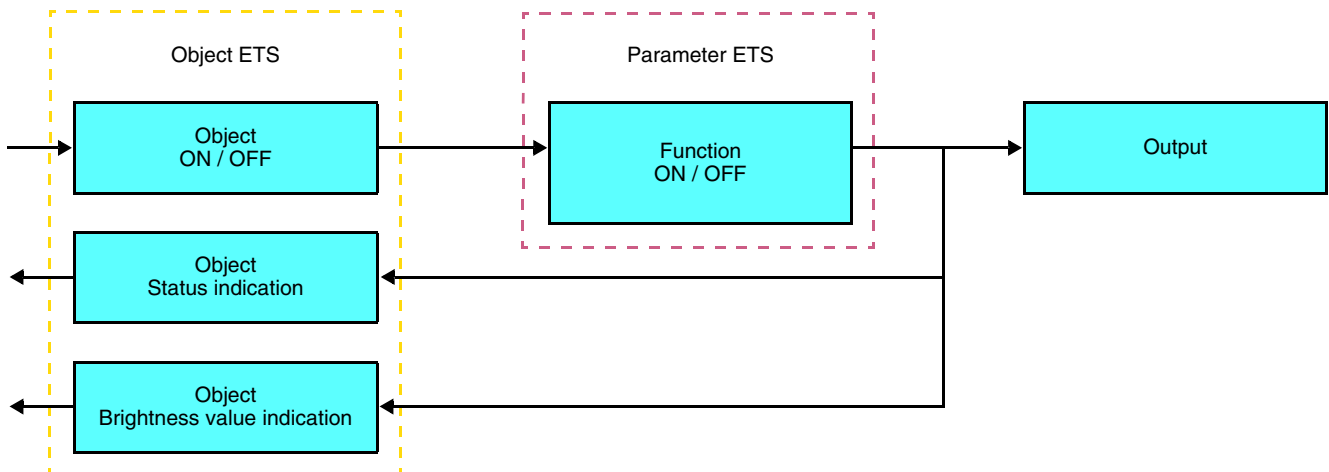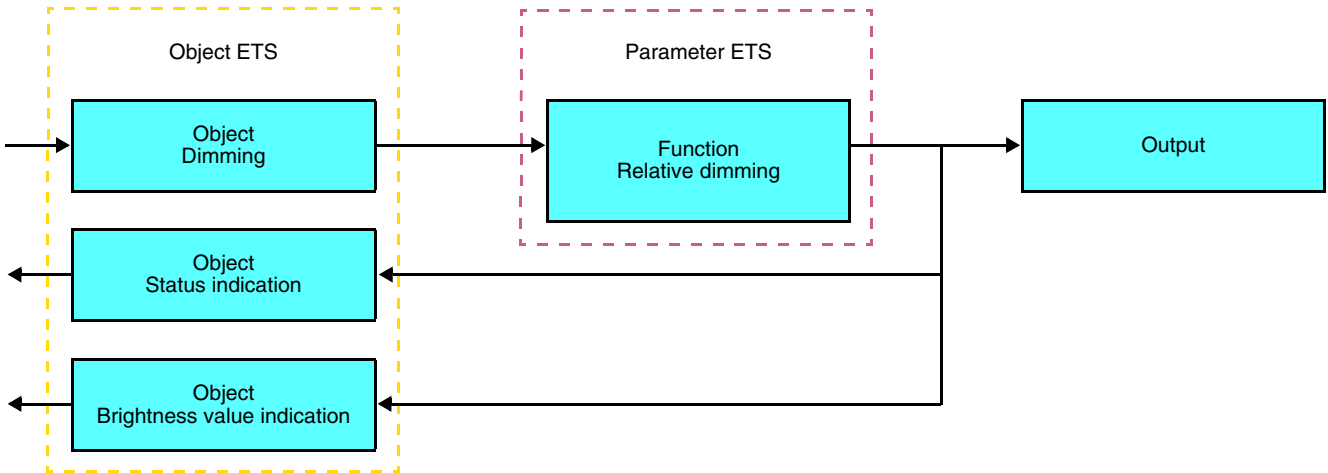
■ Dimming function

The dimming can be relative or absolute.

• Relative dimming

The relative dimming allows increasing or decreasing the lighting level of the lighting circuit as long as a push button is pressed down.
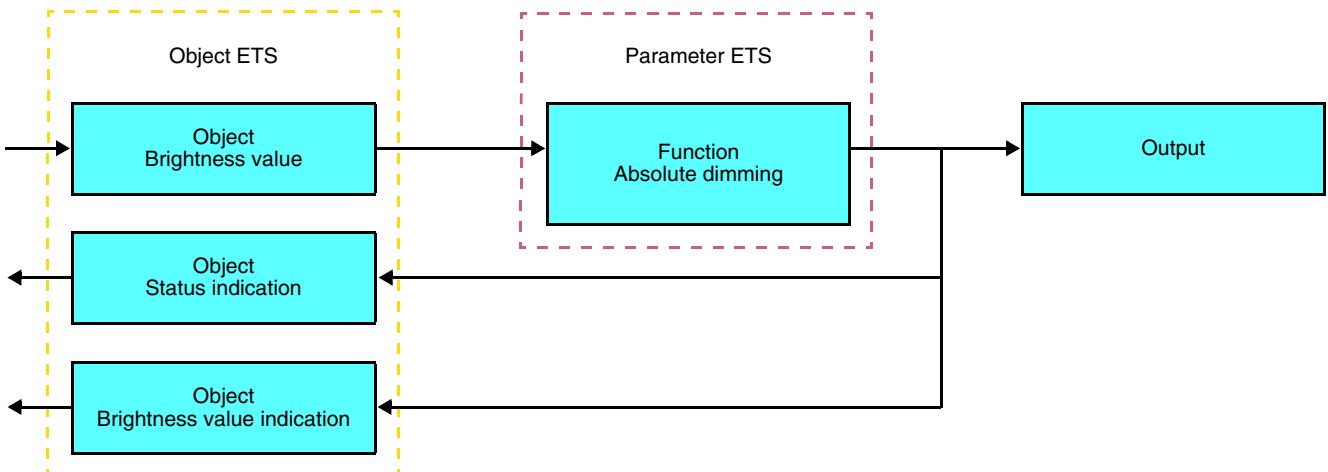
The relative dimming function is started by the **Dimming** object.

```
Object ETS                          Parameter ETS

Object                              Function
Dimming          ────────────►      Relative dimming      ────────────►      Output

Object                          ◄────
Status indication    ◄────

Object                          ◄────
Brightness value indication  ◄────
```
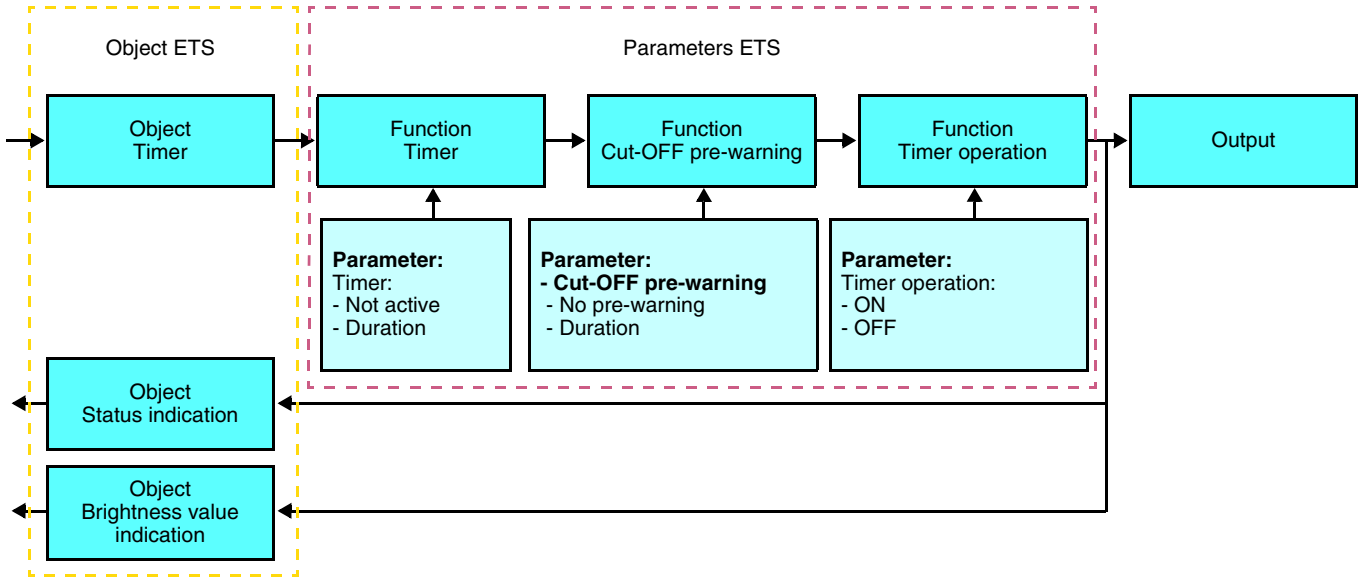
• Absolute dimming

The Absolute dimming function allows applying a brightness level to the lighting circuit when switching it ON or OFF.

The absolute dimming function is started by the **Brightness value** object.

```
Object ETS                          Parameter ETS

Object                              Function
Brightness value  ────────────►      Absolute dimming      ────────────►      Output

Object                          ◄────
Status indication    ◄────

Object                          ◄────
Brightness value indication  ◄────
```

■ 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.

➜ Parameters

Parameter	Description	Value
Timer	This parameter defines the length of the delay time.	Not active, [1 s - 24 h]* Default value: 3 min
Timer operation	This parameter defines whether the delay time triggers an ON or an OFF status.	ON, OFF Default value: ON
Cut-OFF pre-warning	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: 30 s

* Setting range [1 s - 24 h]
1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 30 s, 45 s, 1 min, 1 min 15 s, 1 min 30 s, 2 min, 2 min 30 s, 3 min, 5 min, 15 min, 20 min, 30 min, 1 h, 2 h, 3 h, 5 h, 12 h, 24 h.

■ 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 cancellation command for the priority can end the priority and authorise other commands to be followed again.

→ Description of the **Priority** object

Value	Output behaviour
00	Priority end
01	Priority end
10	Priority ON
11	Priority OFF

→ Parameters

Parameter	Description	Value
Status after priority	This parameter defines the level of lighting applied at the end of the priority.	Maintain, Inversion - Maintain: The output is maintained in the status which was active before the priority, - Inversion: Inversion of the output's status with regards to the status active during Priority (ON to OFF and OFF to ON). Default value: Maintain

■ 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. A scene has been initiated by the object **Scene**.
The group of outputs is created in advance by establishing the link between the outputs that are to be part of the scene and the push button which initiates the scene. Each output can be integrated in 32 different scenes.

➡ Description of the **Scene** object (1 byte)

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

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.

Storage is indicated by the inversion of the status of the outputs concerned for 3s.

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2.4 Master / Slave function

This function enables a link to be established between a master detector and a slave detector.

■ Master detector
The lighting channel of the master detector activates as soon as a slave detector indicates a movement in the detection zone.

■ Slave detector
The slave detector informs the master detector of a presence in its zone.

N°	Name	Function of the object	Length	C	R	W	T
11/14	Master	Master	1 bit	C	R	W	-
0	Slave	Slave	1 bit	C	R	-	T

The operation of the movement detector is defined by the power module associated with it.

Operation of the detector	Power module
Master	1 changeover output 1 dimmer output
Slave	Power supply

2.5 Configuration with media coupler (ETS version > 3.0f)

■ Configuration principle

The 8505 01 00 media coupler enables confuguration by ETS of RF devices for a KNX radio installation or a mixed KNX installation including RF devices and wired buses. For normal operation, the radio transmitters operate in a one-direction mode. Configuration takes place in bi-directional mode.

■ Implementation recommendations

1. The Media coupler must remain in place after configuration. It sends the commands between the radio products and the wired products in auto mode.
2. The coupler must be at the head of the line: **x.y.0** type physical address.
3. The coupler must be in a different line than the USB / series / IP interface.
4. Separate the radio and TP lines:
   • The radio line must not contain TP products: the views of the line in ETS and in the plug-in would contain inconsistencies.
   • The TP lines must not contain radio products: it would be impossible to configure these radio products.
5. Only use the plug-in to program the physical addresses and download the products. As ETS cannot program radio products, it is not possible to use the usual configuration menus.
6. The product copy function must not be used in ETS for radio products. It causes inconsistencies in the projects leading to plug-in malfunctions.
7. Copying projects which already contain a configured media coupler leads to plug-in malfunctions.
8. The use of the "default" button in the ETS parameter setting window is not recommended. This results in:
   ➜ The loss of the parameters of a product which has already been configured.
   ➜ Desynchronisation between the plug-in data and the radio products which have already been configured.
9. During the physical addressing, the download or the factory reset procedures of unidirectional radio products, several attempts may be needed for a successful completion of the procedure.
10. Changing the line of a media coupler which is already configured leads to plug-in malfunctions.
11. Do not use ETS Software function **Unload / Unload application**.

■ Installation procedure

- Create a line reserved for RF devices in your ETS plan,
- First insert the media coupler into this line, then insert the other RF devices into this line,
- Perform the programming, parameter settings and group addressing for all the RF products except for the media coupler,
- Download the physical address of the media coupler. This must be of the type 1.1.0. (always end with a zero),
- Install the media coupler plug-in: Right-click on the product in the ETS tree structure, then select **edit the parameters**. Windows Administrator rights are necessary to install the plug in.
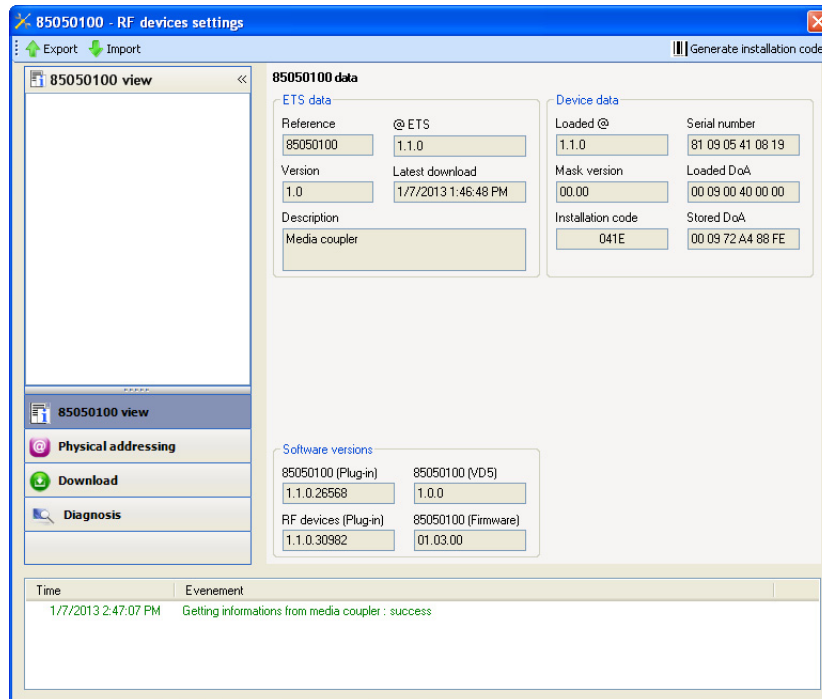
■ Physical addressing of the radio transmitters

- Click on the button **Physical addressing** to display the physical addressing screen for the plug in,
- Select the device to be addressed, then click on the field **Addressing** in the menu line at the upper left of the window,
- Click on **Product search**, if the product is not found by the search, perform a factory reset on the product outside the installation,
- Select the device to be addressed and click on **Attribute address**. The physical addressing of the product is performed. The product is now part of the installation,
- After downloading the physical address, the ⟨⟨ symbol appears in front of the product,
- Repeat this operation for the other radio transmitters.
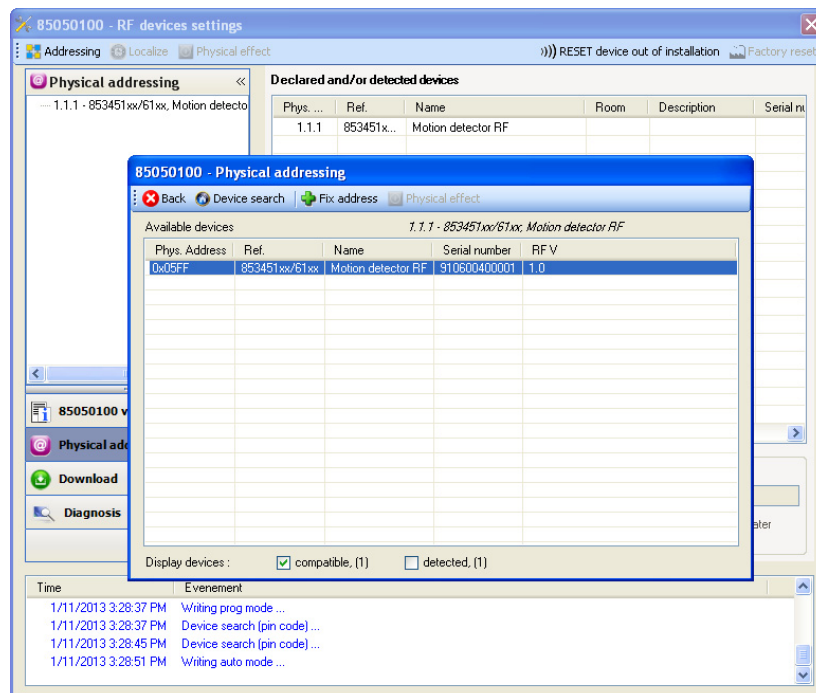
■ Downloading the program and the parameters

This operation is performed using the plug-in. There are 2 ways of accessing the **Download** view:

- From the media coupler
  - Right-click on the product in the ETS tree structure, then select **edit the parameters**,
  - Click on **Download** and follow the instructions on the screen.

- From the RF product to be downloaded
  - Right click on the product in the ETS tree structure, then select **Download RF product**… and follow the instructions on the screen.
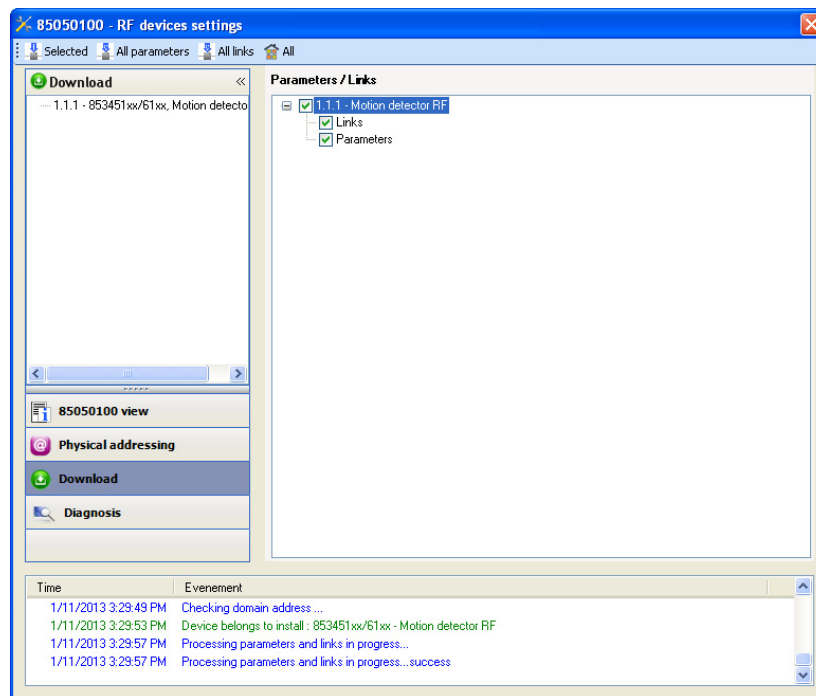
The right-hand window allows you to select the parameters and / or links to be downloaded for each product.

Finalise the download by selecting the type of download in the upper bar:
- **Selected** to download the selected parameters and links,
- **All parameters** to download all the parameters of all the products displayed,
- **All links** to download all the links for all the products displayed,
- **All** to download all the parameters and all the links of all the products displayed.

To test the functions and the KNX radio communication, return to normal use mode and wait 15 s before pressing a control button on a transmitter.

Caution: The media coupler plug-in must be deactivated during the functional tests.

NB: For more information, refer to the description for the 8505 01 00 application software.

3. Factory reset

This function enables the device to be returned to its initial configuration (configuration when it came out of the factory). After a device reset, the device can be re-used in a new installation. A factory reset can be performed either directly on the product or by the media coupler plug-in. This last solution is recommended if the product is part of an installation configured by ETS, thus the device is erased from the project.

3.1 Factory reset by ETS via the media coupler

- For a product which is part of the installation (known by the media coupler): In the **Physical addressing** menu, select **Factory reset** and then follow the instructions which appear on the screen,
- For a product which is not part of the installation (unknown by the media coupler): In the menu **Physical addressing**, select **RESET device out of installation**, then **Unidirectional device with Addr. button**.
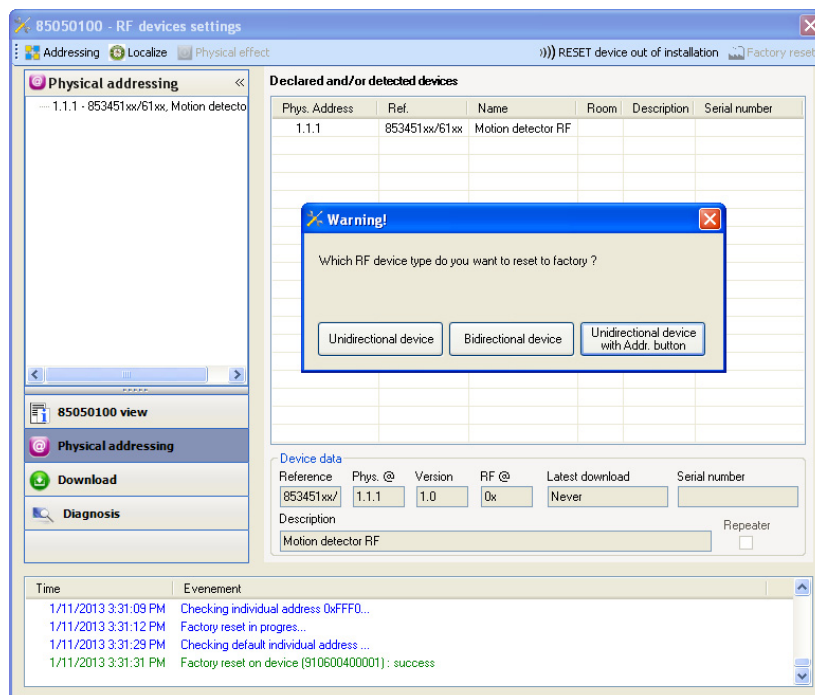
3.2 Factory reset on the product

It is always possible to perform the factory reset directly on the device.

Factory reset on the product:
- Do a long key press (> 10 seconds) on the **cfg** push button, release the button when the **cfg** LED blinks,
- Wait for the **cfg** LED to switch off, indicating that the factory reset has been completed.

Remark:
To re-use a product which has already been programmed in another installation, whatever the configuration mode, a factory reset must be performed on the product.
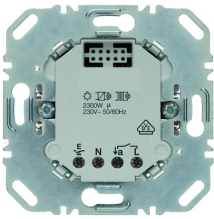
4. Examples of applications

4.1 Switching the light on/off (ON / OFF)

The 8534 51 xx module controls the 8512 12 00 module and the 6 ON/OFF outputs module.

Operation:
- Detection of valid movement: Switch on the light for 2 minutes,
- At the end of the time delay: Switch off the light.

Equipment:

1x 8534 51 xx	1x 8512 12 00	1 6 ON / OFF outputs module

Object KNX

N°	8534 51 xx		N°	8512 12 00
	Object name			Object name
1	Input - ON / OFF	➜	6	Output - ON / OFF

N°	8534 51 xx		6 ON/OFF outputs module
	Object name		Object name
1	Input - ON / OFF	➜	Output - ON / OFF

Parameters KNX

	8534 51 xx	8512 12 00	6 ON/OFF outputs module
	Lighting channel		
Channel function	ON / OFF		
Function	ON / OFF	Default settings	Default settings
Timer	2 min		

Comment:
- When a movement is detected, the ON control is sent on the bus, taking into account the ambient light. If no more movement is detected, the OFF control is sent on the bus after the detection timer has expired (2 min).
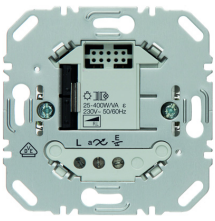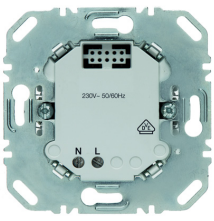
4.2 Dimming of the light by movement detection

The 8534 51 xx module controls the 8542 11 00 module and the 3 dimming outputs module. The second 8534 51 xx module operates as a slave.

Operation:
- Detection of valid movement: Lighting dimming at 90%,
- At the end of the time delay: Lighting dimming at 20%.

Equipment:

2x 8534 51 xx	1x 8542 11 00	1x 8502 01 00	1 3 dimming outputs module

Remark: The 8502 01 00 power module is only used to power the control module.

Object KNX

N°	8534 51 xx (Master)		N°	8542 11 00
	Object name			Object name
4	Input - Brightness value	➜	8	Output - Brightness value

N°	8534 51 xx (Master)		3 dimming outputs module
	Object name		Object name
4	Input - Brightness value	➜	Output - Brightness value

N°	8534 51 xx (Master)		N°	8534 51 xx (Slave)
	Object name			Object name
11	Master - Master	➜	0	Slave - Slave

Parameters KNX

	8534 51 xx (Master)	8542 11 00	3 dimming outputs module	8534 51 xx (Slave)
	Lighting channel			
Channel function	Brightness value Presence / Absence	Default settings	Default settings	Default settings
Brightness value Presence	90%			
Brightness value Absence	20%			
Timer	2 min			

Comment:

- When a movement is detected, the Brightness value Presence control (90%) is sent on the bus, taking into account the ambient light. If no more movement is detected, the Brightness value Absence control (20%) is sent on the bus after the detection timer has expired (2 min). The slave detector informs the master detector of a presence in its zone.

5. Main characteristics

Product	8534 51 xx / 61 xx
Max. number of group addresses	84
Max. number of links	95

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