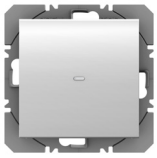
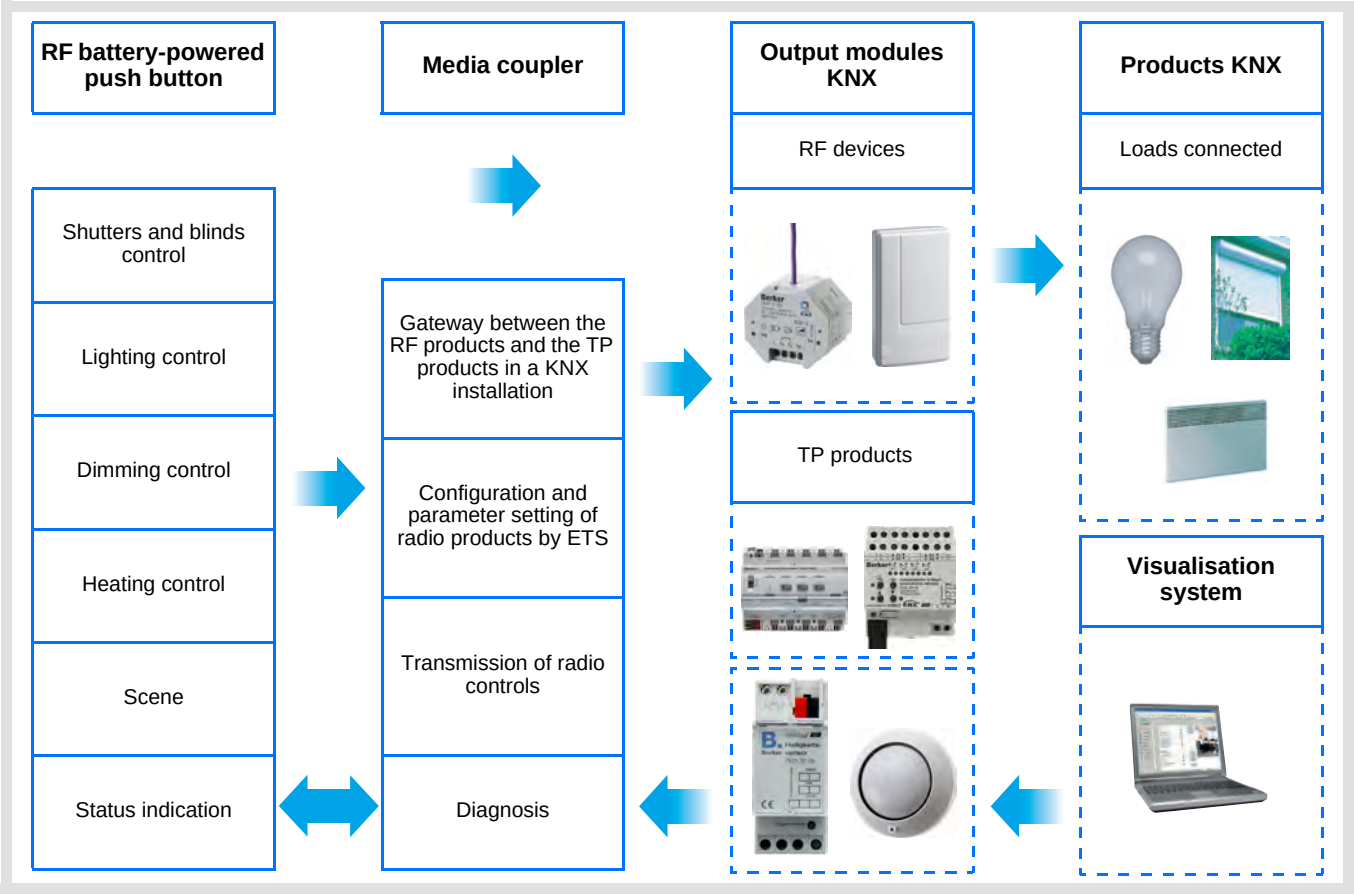
application software

RF input product

Electrical / Mechanical characteristics: see product user manual

	Product reference	Product designation	TP device RF devices
	8565 52 xx 8565 62 xx	1-fold push button RF battery 2-fold push button RF battery	
	8565 51 xx 8565 61 xx	1-fold push button RF battery (Solar-powered) 2-fold push button RF battery (Solar-powered)	



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.

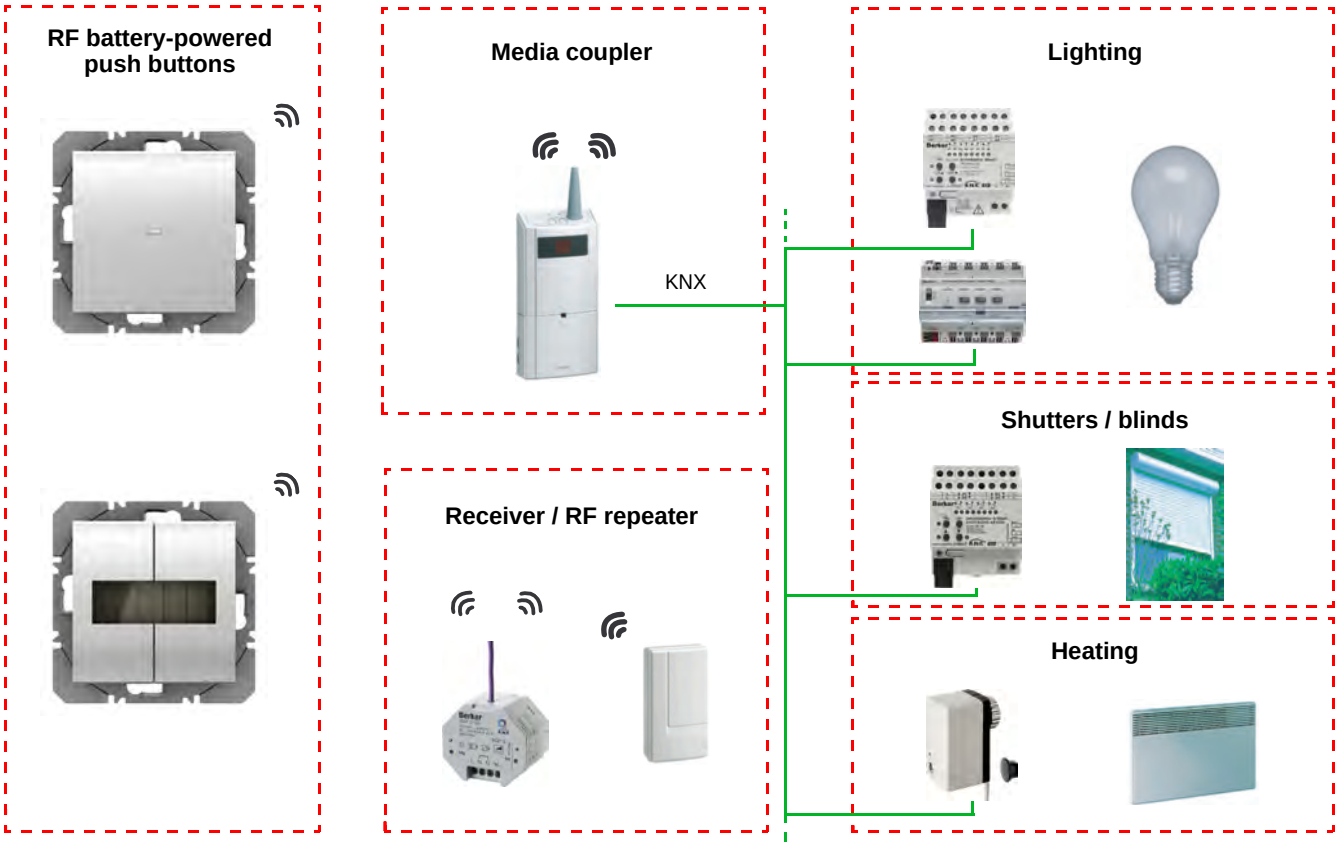
Within the same installation, a single configuration mode may be used.

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.

The radio transmitters described in this document are push button type input products only.

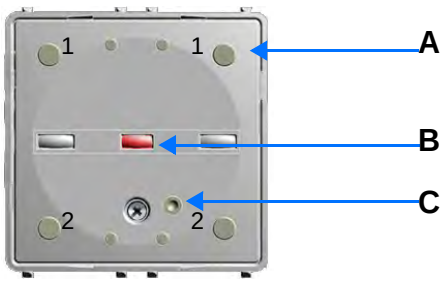
1.2 General outline



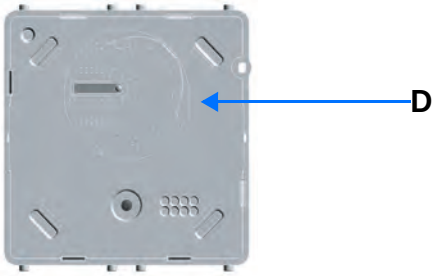
1.3 Description of the product

Battery version

Front face

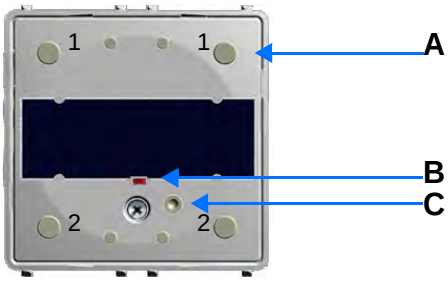


Rear face



Solar-powered version

Front face



A: Button
B: Configuration LED
C: Button cfg

D: Battery 3V Lithium

1.4 Function Description

The radio transmitter application software enables each input to be configured individually. The push buttons are used to send commands for lighting, blinds and shutters, heating setpoints or scenes.

The main functions are the following:

■ Emission of commands

The inputs allow commands for lighting, shutters and blinds, heating settings and scenes to be transmitted.

- Lighting control
  - Toggle switch, ON, OFF, ON / OFF, Timer
  - 1 button or 2 button dimmer
- Shutters / Blinds control
  - Up, Down, Stop, Slat angle
  - 1 button or 2 button control
- Set point selection (Heating)
  - Comfort, Night set-point, Frost protection, Auto, Standby

■ Scene

The Scene function sends group controls to different kinds of outputs to create ambiences or scenarios.
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).

1.5 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 Objects List

Parameters	N°	Name	Function of the object	Length	C	R	W	T
Toggle switch	0	Push button 1	Status indication	1 bit	C	R	W	-
	1	Push button 1	ON / OFF	1 bit	C	R	-	T
ON / OFF	1	Push button 1	ON / OFF	1 bit	C	R	-	T
1-button dimmer	0	Push button 1	Status indication	1 bit	C	R	W	-
	1	Push button 1	ON / OFF	1 bit	C	R	-	T
	4	Push button 1	Dimming	4 bit	C	R	-	T
2-button dimmer	0	Push button 1	Status indication	1 bit	C	R	W	-
	1	Push button 1	ON / OFF	1 bit	C	R	-	T
	4	Push button 1	Dimming	4 bit	C	R	-	T
Shutters / blinds	0	Push button 1	Status indication	1 bit	C	R	W	-
	1	Push button 1	Slat angle / Stop	1 bit	C	R	-	T
	2	Push button 1	Up / Down	1 bit	C	R	-	T
Heating	5	Push button 1	Set point selection	1 byte	C	R	-	T
Scene	5	Push button 1	Scene	1 byte	C	R	-	T
Timer	0	Push button 1	Status indication	1 bit	C	R	W	-
	1	Push button 1	Timer	1 bit	C	R	-	T
	12 / 25*	Status indication	Battery Status	1 byte	C	R	-	T

* N° 12 for 8565 51 xx / 52 xx, N° 25 for 8565 61 xx / 62 xx.
The functions of the objects are identical for push buttons 2, 3 and 4 (See chapter 2.2 for the object numbers).

2.2 List of object numbers

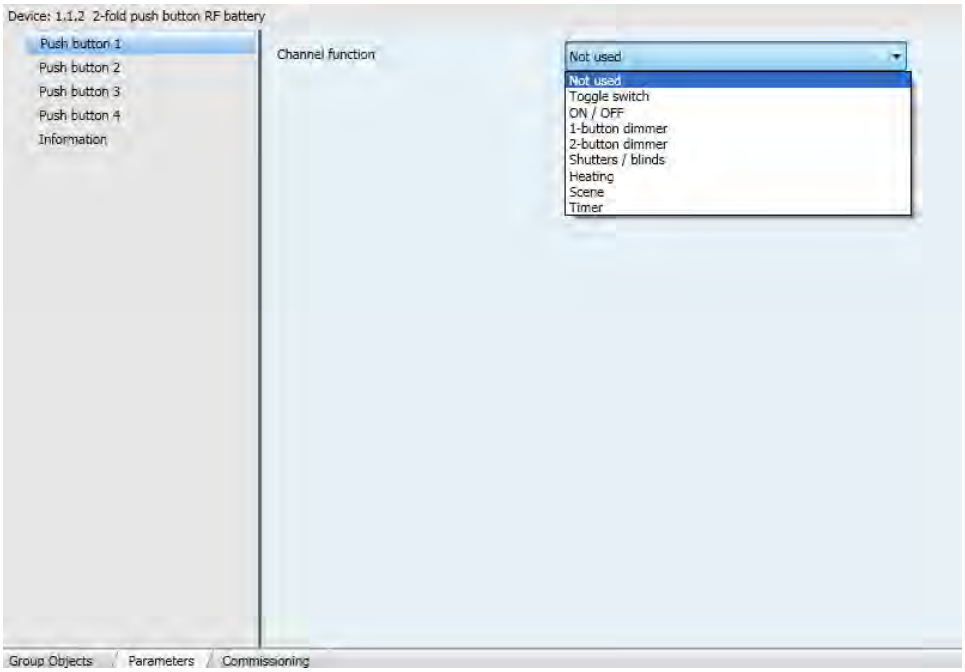
Object	2-fold push button RF battery				Length
	1-fold push button RF battery				
	Number Push button 1	Number Push button 2	Number Push button 3	Number Push button 4	
Status indication: Toggle switch 1-button dimmer 2-button dimmer Shutters / blinds Timer	0	6	12	18	1 bit
ON / OFF: Toggle switch ON / OFF 1-button dimmer 2-button dimmer **Slat angle / Stop:** Shutters / blinds **Timer:** Timer	1	7	13	19	1 bit
Up / Down: Shutters / blinds	2	8	14	20	1 bit
Dimming: 1-button dimmer 2-button dimmer	4	10	16	22	4 bit
Heating: Set point selection **Scene:** Scene	5	11	17	23	1 byte

2.3 Setting parameters

■ Parameter setting: Channel function

The push buttons are used to send commands for lighting, blinds and shutters, heating setpoints or scenes.

➜ Parameter Setting screen



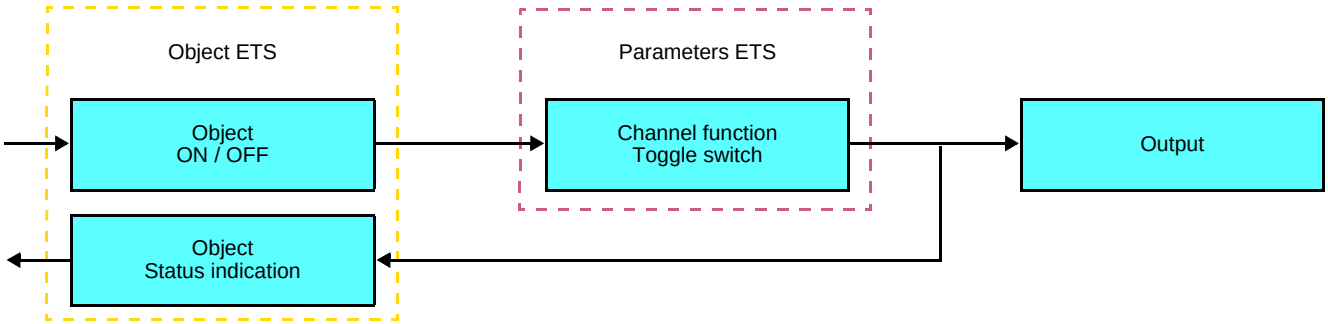
Screen 1

Designation	Description	Value
Channel function	This parameter allows selecting the function associated with each input.	Not used Toggle switch ON / OFF 1-button dimmer 2-button dimmer Shutters / blinds Heating Scene Timer Default value: Not used

Channel function: Toggle switch

This function is used to switch the lighting circuit or any other load ON or OFF. Each new key-press modifies the output status.

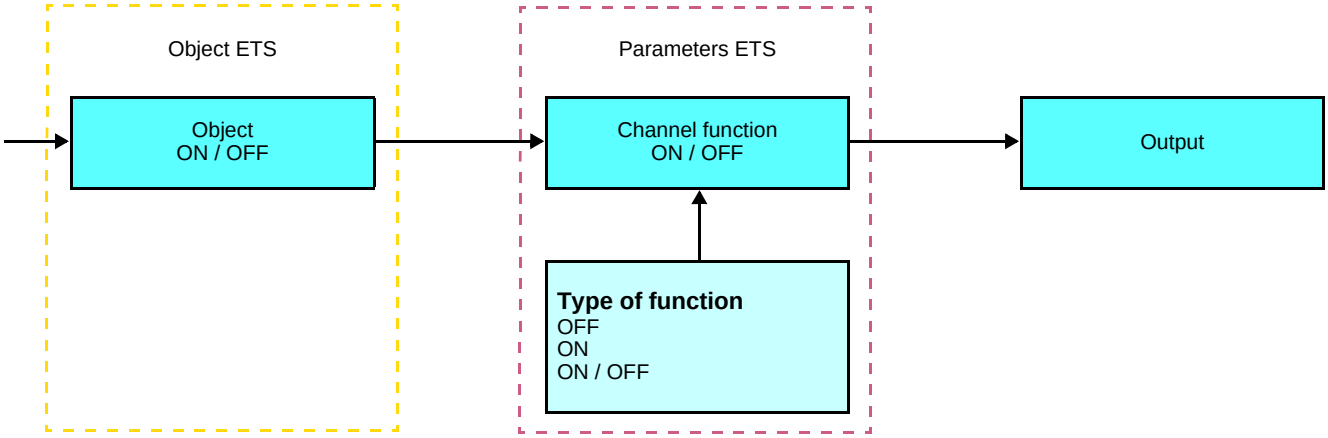
Description: After pressing the connected pushbutton, depending on the **Status indication** object, an **ON or OFF** command will be sent to the bus via the **ON / OFF** object.



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.

Description:



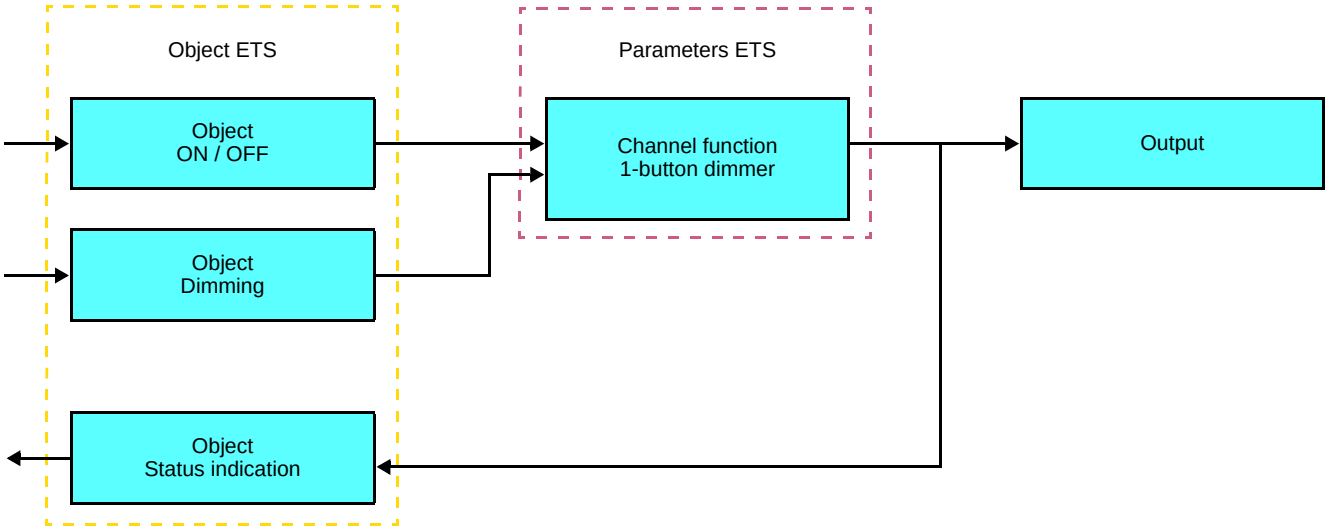
- ON: Emission of the ON control when the input push button is pressed,
- OFF: Emission of the OFF control when the input push button is pressed,
- ON / OFF: Emission of the ON control when the input push button is pressed and emission of the OFF control when the input push button is released.

Channel function: Dimming

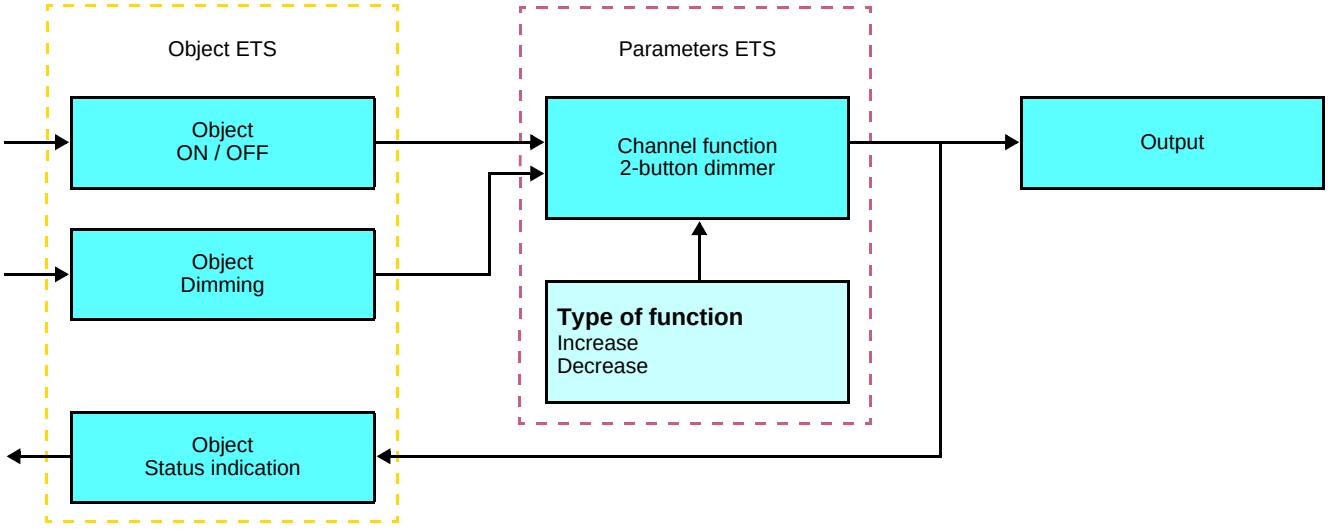
This function is used to control lighting circuits using one or two buttons.
The 1 button dimmer and 2 buttons dimmer functions send the **ON / OFF** object after a short press.
A long press send the **Dimmer** object.

Description: There are 2 different function types: 1-button dimmer or 2-button dimmer.

Channel function: 1-button dimmer
This function allows ON / OFF or Increase / Decrease controls using one push button.



Channel function: 2-button dimmer
This function allows ON or Increase controls using one push button, and OFF or decrease controls using a second push button.



Channel function: Shutters / blinds

This function controls shutters and blinds (Up, Down and slat angle adjustment for blinds).

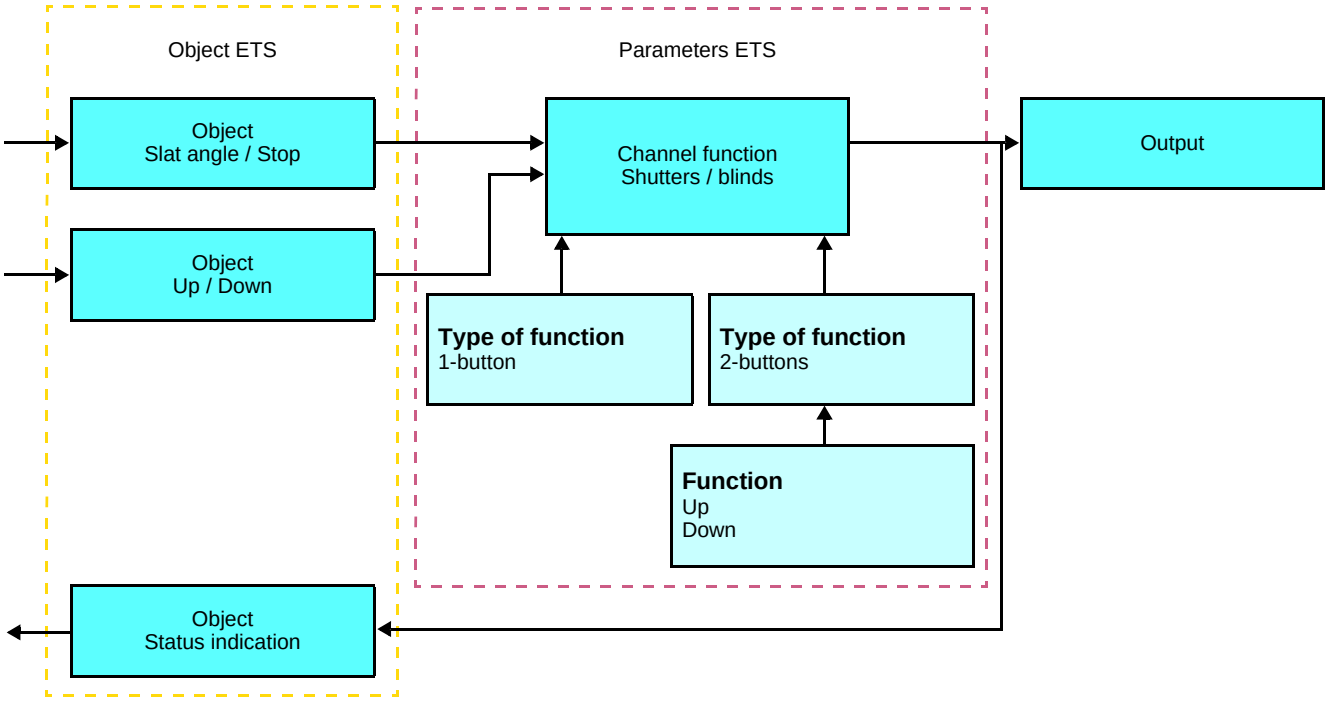
Description: There are 2 different functions:

- 1-button,

  This function controls shutters or blinds using one push buttons (Input).
  Function change after each press (Down, Stop, Up, Stop). Slat angle adjustment is not possible here.

- 2-buttons.

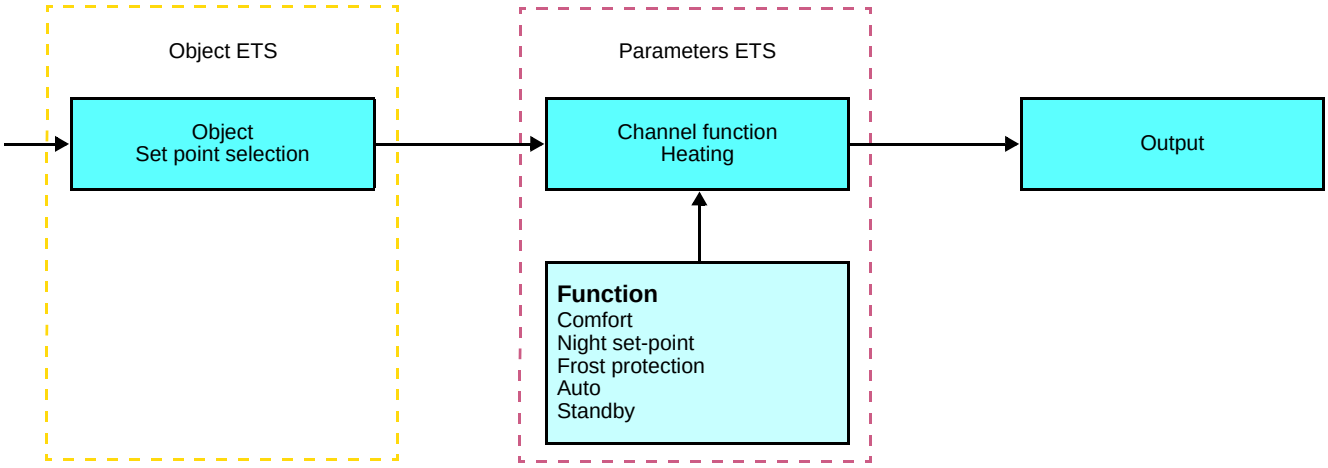
  This function controls shutters or blinds using two push buttons (Input). One button for Up and one button for down.
  The function transmit the **Up / Down** object (long key press) and the **Slat angle adjustment / Stop** object (short key press).



Channel function: Heating mode selection

This function is used select a heating setpoint. The operating modes are sent via the **Set point selection** object. The set point selection to be sent must be defined in the parameters.

Description:



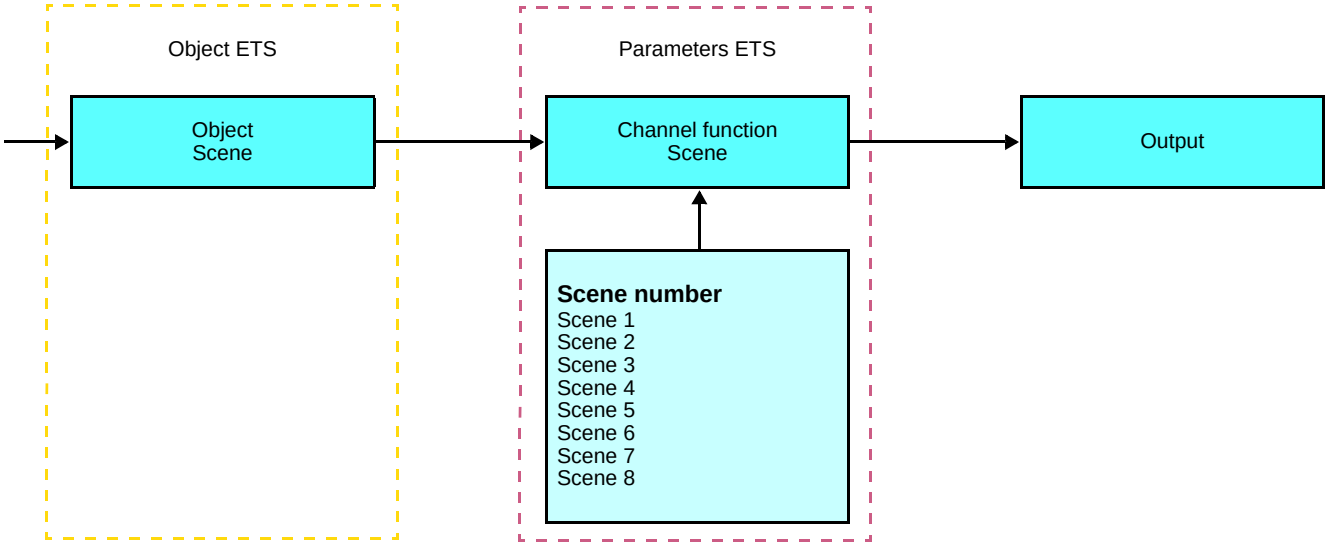
Pressing the push button once sends the following objects:

Value	Designation	Description	Icon
0	Auto	Temperature defined by programming.	
1	Comfort	Temperature during occupied periods.	
2	Standby	Temperature for a short unoccupied period.	
3	Night set-point (Night)	Temperature for night-time periods.	
4	Frost protection	Temperature for long unoccupied periods.	

Channel function: Scene

The Scene function sends group controls to different kinds of outputs to create ambiences or scenarios (Panic switch, Television, etc.).
The value of the **Scene** object is defined by the **Scene number** parameter.

Description:



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

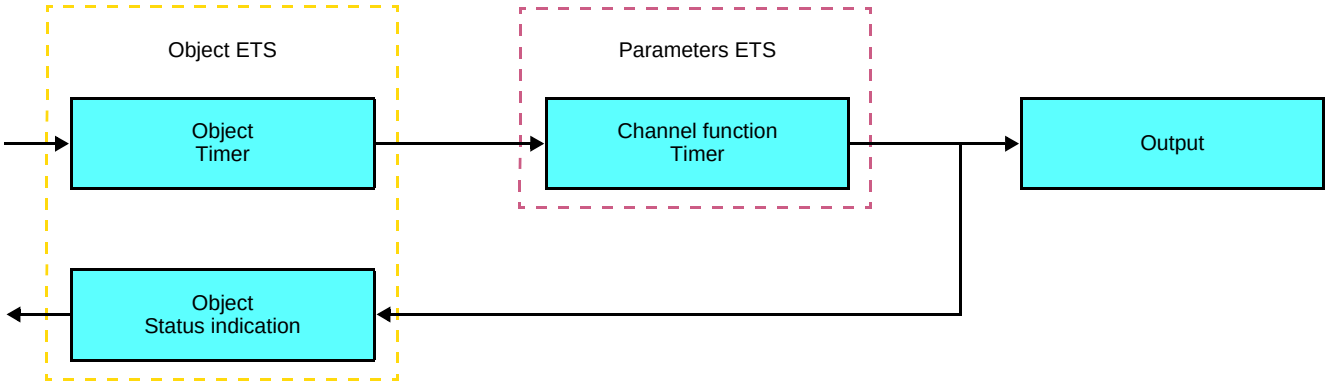
- Activate the scene by pressing briefly on the room push button that triggers the scene,
- Set the outputs to the desired status using the push buttons that control them individually,
- Store the output statuses by pressing the room push button that triggers the scene for longer than 5 s.

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

Channel function: Timer

This function operates like a staircase light function. The timer duration is set on the output module.

Description:



Feature:

- short key press (rising edge): Timer start,
- long key press (falling edge): Timer end.

Remark:

- short key-press: < 0.4 s
- long key-press: >= 0.4 s

A short key-press sends an ON command to the bus via the **Timer** object. A long key-press sends an OFF command to the bus via the **Timer** object.

The time is retriggered in the output by a recurrent short key press. Successive presses on the control button for the timer increase the timer's duration. The effective length will then be multiplied by the number of presses made during the 10 s following the first press.

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

The delay time starts after the last key-press. An ON command received after the 10 s restarts the set turn-on time. An OFF command switches immediately the output to OFF.

Status indication: Battery Status

This function is used to send low battery information on the KNX bus.
It sends the **Battery Status** object when one of the buttons is pushed if the low battery level is reached.

Value	Designation	Description
0	Low battery	The value of the object is sent four times at 1 s intervals.
1	Battery OK	After changing the battery, the value of the object is sent four times at 1 s intervals.

A low battery causes the LED to flash at a frequency of 10 Hz (50 ms ON - 50 ms OFF) for one second when a push button is pressed. The battery must be changed as soon as possible.
The battery lifetime dependds on the number of times the push button is pressed.

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

Configuration principle

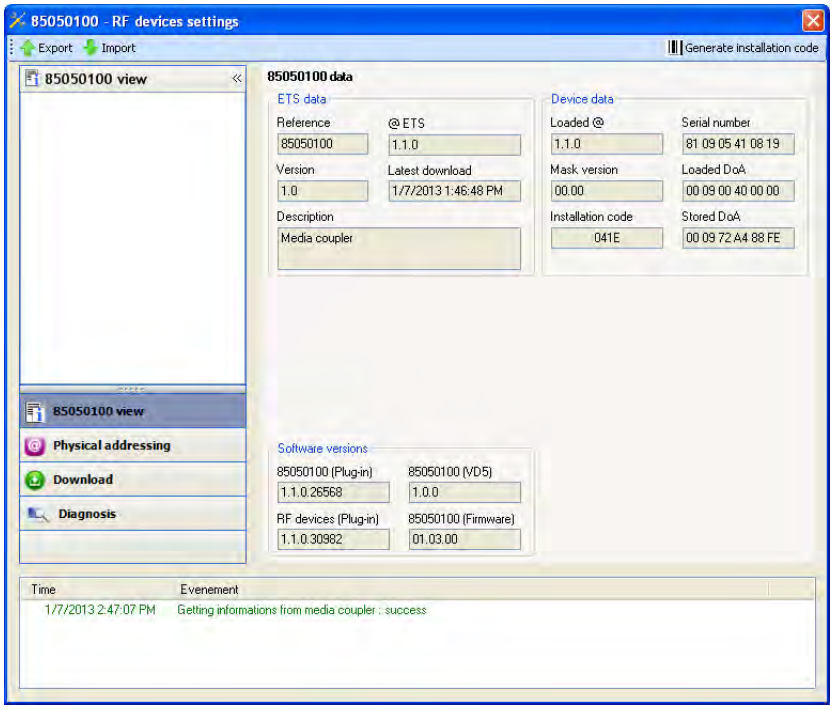
The 8505 01 00 media coupler enables confuguration by ETS of RF devices for a KNX radio installation or a mixed KNX installation including RF devices and wired buses. For normal operation, the radio transmitters operate in a one-direction mode. Configuration takes place in bi-directional mode.

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**.

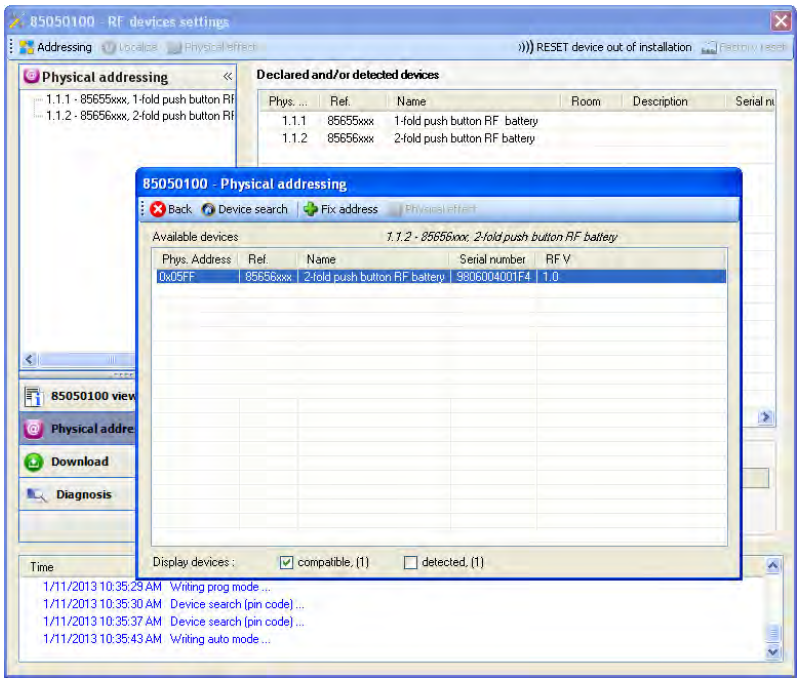
Installation procedure

- 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,
  - Press the **cfg** button for each transmitter to be addressed, then click **Device search** (if the device is not found by the search, perform a **RESET device out of installation**, or manually on the device by pressing the cfg > 10 s button),
  - 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.

Caution: After an interruption in the above operations greater than 10 mn, it is necessary to press the **cfg** button again on the transmitter devices to be programmed.

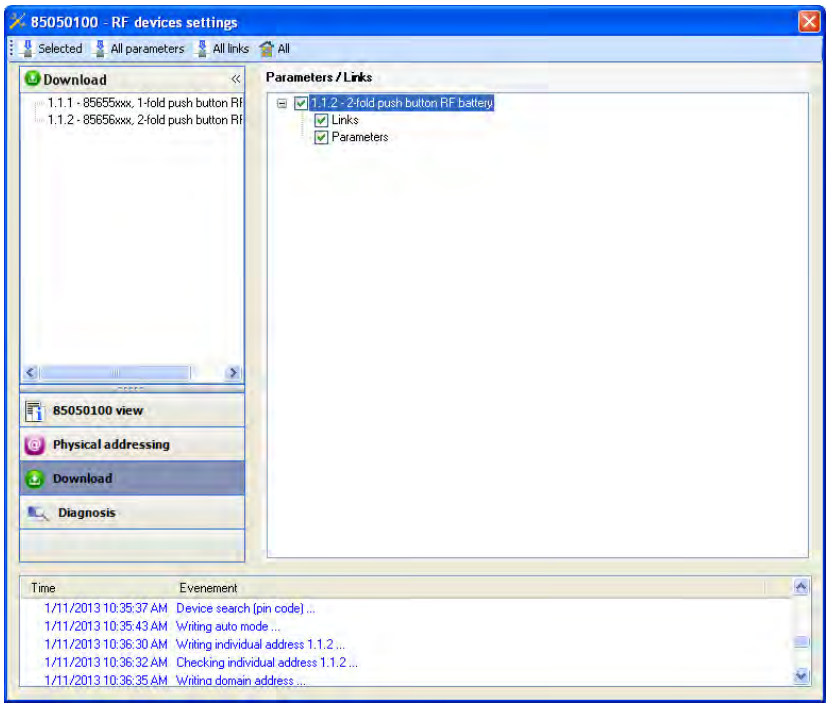


Downloading the program and the parameters

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.

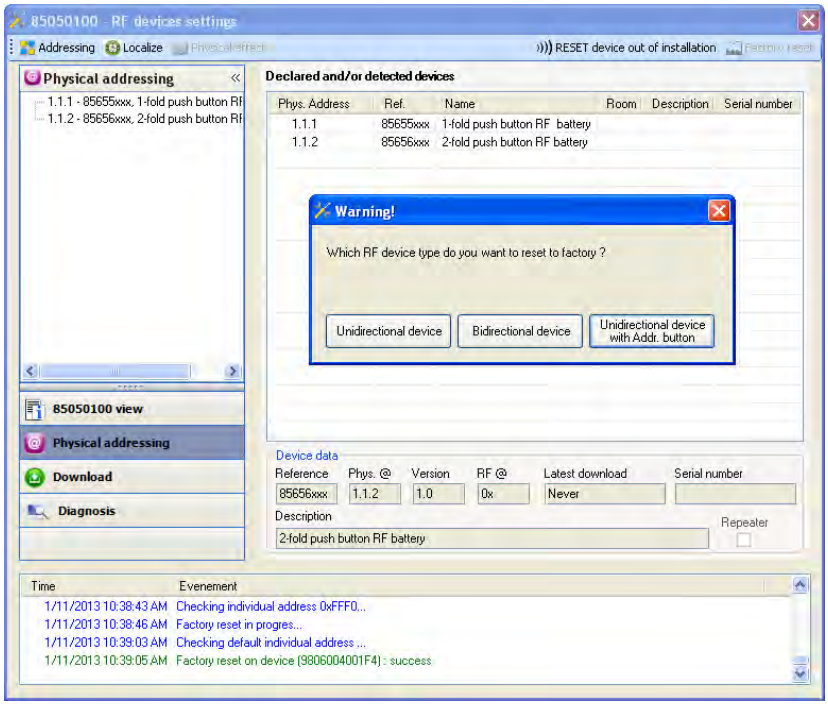
NB: For more information, refer to the description for the 8505 01 00 application software.

3. Factory reset

This function enables the product to be returned to its initial configuration (factory reset). 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 8565 52 xx RF battery-powered push button controls the 6 ON/OFF outputs module.

Operation:

- Press on the push button 1: Switch on the light,
- Press on the push button 2: Switch off the light.

Equipment:

1x 8565 52 xx	1 6 ON / OFF outputs module
	

Object KNX

N°	8565 52 xx		6 ON/OFF outputs module
	Object name		Object name
1	Push button 1 - ON / OFF	➜	Output - ON / OFF
7	Push button 2 - ON / OFF	➜	Output - ON / OFF

Parameters KNX

	8565 52 xx			6 ON/OFF outputs module
	Push button 1	Push button 2		
Channel function	ON / OFF	ON / OFF		Default settings
Function	ON	OFF		

Comment:

- A short press on push button 1 switches the light on,
- A short press on push button 2 switches the light off.

4.2 Switching the light on/off (Toggle switch) + 1-button dimmer

The 8565 52 xx radio battery-powered push button controls the 1 output RF module and the 3 dimming output module.

Operation:

- Press on the push button 1 : Switching the light on/off,
- Press on the push button 2 : Switch on / Switch off + Dimming of the light.

Equipment:

1x 8565 52 xx	1 1 ON/OFF output RF module	1 3 dimming outputs module
		

Object KNX

N°	8565 52 xx		1 ON/OFF output RF module
	Object name		Object name
0	Push button 1 - Status indication	➜	Output - Status indication
1	Push button 1 - ON / OFF	➜	Output - ON / OFF

N°	8565 52 xx		3 dimming outputs module
	Object name		Object name
6	Push button 2 - Status indication	➜	Output - Status indication
7	Push button 2 - ON / OFF	➜	Output - ON / OFF
10	Push button 2 - Dimming	➜	Output - Dimming

Parameters KNX

	8565 52 xx			1 ON/OFF output RF module		3 dimming outputs module
	Push button 1	Push button 2				
Channel function	Toggle switch	1-button dimmer		Default settings		Default settings

Comment:

- A short press on push button 1 switches the light on or off according to the **Status indication** object (ON or OFF),
- A short press on push button 2 switches the light on or off according to the **Status indication** object (ON or OFF),
- A first long press on push button 2 increases the light,
- A second long press on push button 2 decreases the light.

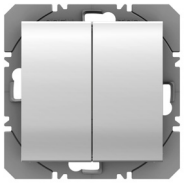
4.3 2-button dimmer + Shutter, Up / Down

The 8565 62 xx RF battery-powered push-button controls the 3 dimming outputs module and 4 shutter outputs module.

Operation:

- Press on the push button 1: Switch on + Increase the light,
- Press on the push button 2: Switch off + Decrease the light,
- Press on the push button 3: Shutter up + Slat angle / Stop,
- Press on the push button 4: Shutter Down + Slat angle / Stop.

Equipment:

1x 8565 62 xx	1 3 dimming outputs module	1 4 shutter outputs module
		

Object KNX

N°	8565 62 xx		3 dimming outputs module
	Object name		Object name
0	Push button 1 - Status indication	➜	Output - Status indication
1	Push button 1 - ON / OFF	➜	Output - ON / OFF
4	Push button 1 - Dimming	➜	Output - Dimming
6	Push button 2 - Status indication	➜	Output - Status indication
7	Push button 2 - ON / OFF	➜	Output - ON / OFF
10	Push button 2 - Dimming	➜	Output - Dimming

N°	8565 62 xx		4 shutter outputs module
	Object name		Object name
13	Push button 3 - Slat angle / Stop	➜	Output - Slat angle / Stop
14	Push button 3 - Up / Down	➜	Output - Up / Down
19	Push button 4 - Slat angle / Stop	➜	Output - Slat angle / Stop
20	Push button 4 - Up / Down	➜	Output - Up / Down

Parameters KNX

	8565 62 xx					3 dimming outputs module		4 shutter outputs module
	Push button 1	Push button 2	Push button 3	Push button 4				
Channel function	2-button dimmer	2-button dimmer	Shutters / blinds	Shutters / blinds		Default settings		Default settings
Type of function			2-buttons	2-buttons				
Function	Increase	Decrease	Up	Down				

Comment:

- A short press on push button 1 switches the light on,
- A short press on push button 2 switches the light off,
- A long press on push button 1 increases the light,
- A long press on push button 2 decreases the light,

- A short press on push button 3 or 4 stops the shutter or tilts the slats of the blind,
- A long press on push button 3 raises the shutters,
- A long press on push button 4 lowers the shutters.

5. Main characteristics

Product	8565 51 xx / 52 xx	8565 61 xx / 62 xx
Max. number of group addresses	86	79
Max. number of links	95	95

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