Smart key panel user manual

LFZYSTKNX - Push button -V1.3

(Applicable series: Z-ERD4/ Z-RD4 switch, ED8/ ED8B switch, D89/ D8C switch, D29A switch, YT magnetic holding relay switch, etc.)

Catalogue

1. Summary

The smart key panel is developed based on KNX bus technology, which is simple and intuitive to operate and rich in functions. Users can configure corresponding functions according to their own needs.

This manual provides users with detailed technical information about the smart key panel, including installation and programming details, and links to practical examples of how to use the smart key panel.

The smart key panel series has 1-8 key switches, which can be used to control the switch, dimming, blinds, scenes, etc. Each key has a white and orange LED indicator light.

The coupler of the smart key panel is directly connected to the bus through the EIB terminal.

The smart key panel has many fsuitable for a variety of application fields. The main functions are as follows:

- Switch and dimming function
- Window curtain function
- Send value function
- Call and store scene functions
- Venetian blinds function
- Delay sending control function
- Multiplexing function
- RGB sends the dimming control value function
- Color temperature sending control value function

- LED indicator function

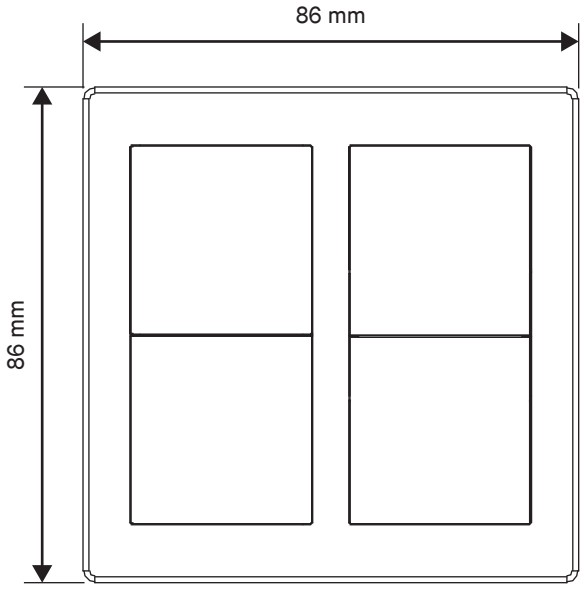
Each key on the smart button panel can use all of the functions described above, and each key is independent of each other.

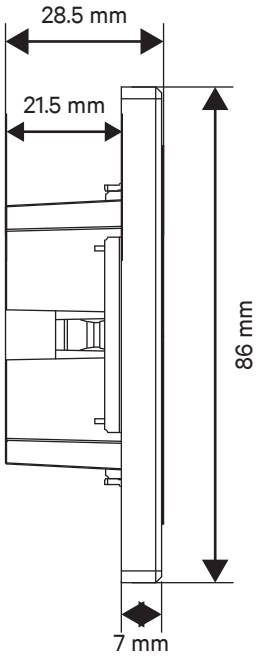
2. Technical parameters

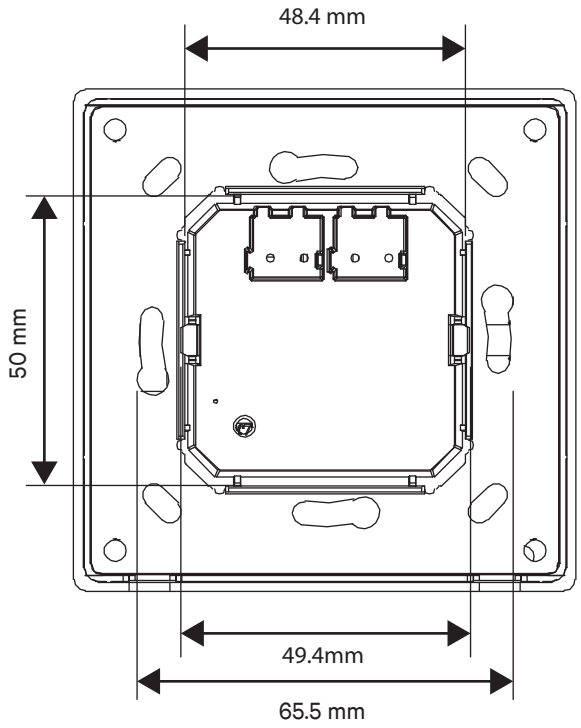
Source:	-Bus voltage	21 – 30V DC, which were obtained via the EIB bus
	-EIB / KNX, current consumption	<10mA
	-EIB / KNX, power consumption	Max.1.8W
Operation / indication:	-4 combined programmable keys, each link corresponding to one LED indicator	
	- Programming LED and buttons Assign physical address	
Number of key operation:	>20000	
Connection:	-EIB/KNX Bus connection, terminal connection	
levels of protection:	-IP 20	toDINEN 60 529
Security Classification:	-II	toDINEN 61 140
temperature range:	-move	- 5 °C - 45°C
	-memory	- 25 °C - 55 °C
	-transport	- 25 °C -70 °C
Design:	-Embedded-mounted equipment	
	-Size 90×36×67.5mm (HWD)	
Installation:	-Standard 86 box wall installation method	
Weight:	-0.1 KG	
Case / Color:	-Plastic case, gray	
Certification:	-EIB / KNX certification	
CE standard:	-Comply with the EMC standard and the low voltage standard	
Halogen-free material:	-conforming to DIN VDE 0472-815	

3. Product Information

3.1.1 Z-ERD4 size diagram

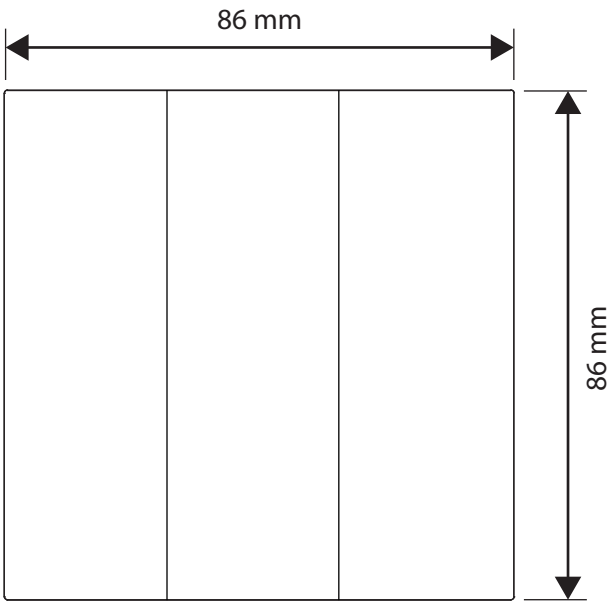


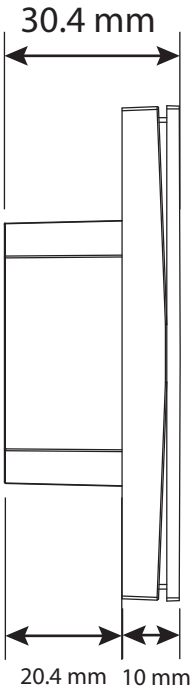


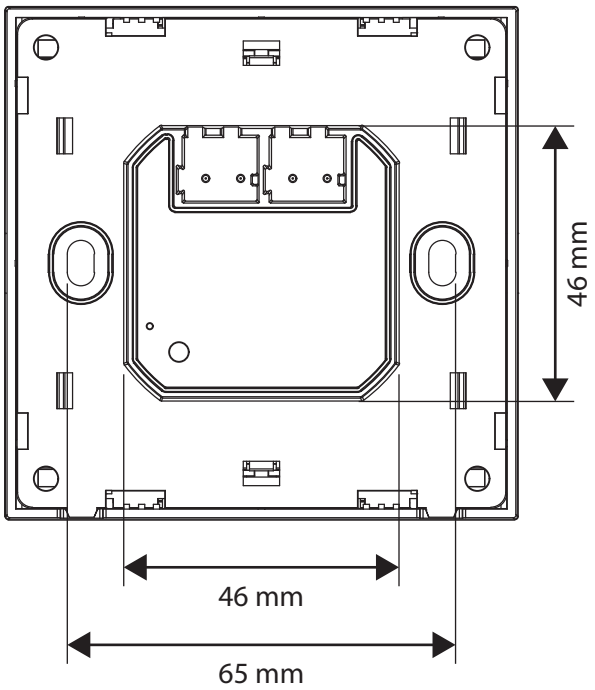


Series:	Z-ERD4
Types of Switches:	Tact Switch
Input Voltage:	24V DC
Installation Method:	86mm Wall Box
Touch Lifespan:	100,000 times
Surface Materials:	Aluminum
Product Dimensions :	W:86 H:86 D:7mm

3.1.2 ED8/ED8B size diagram

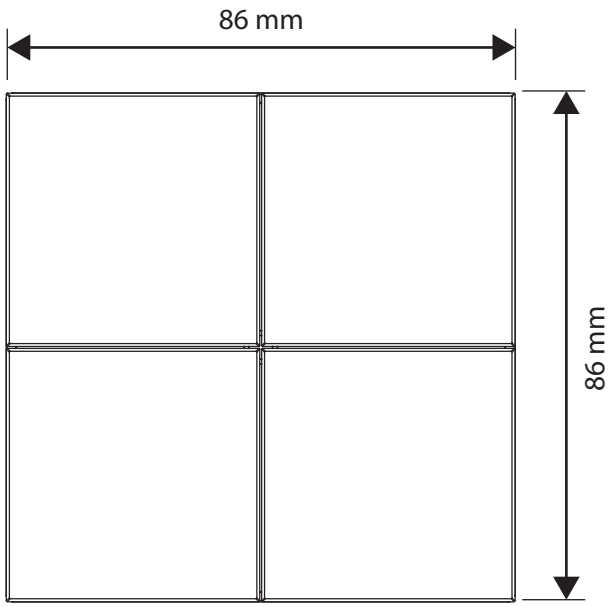


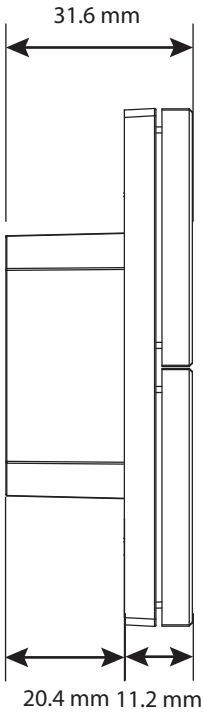


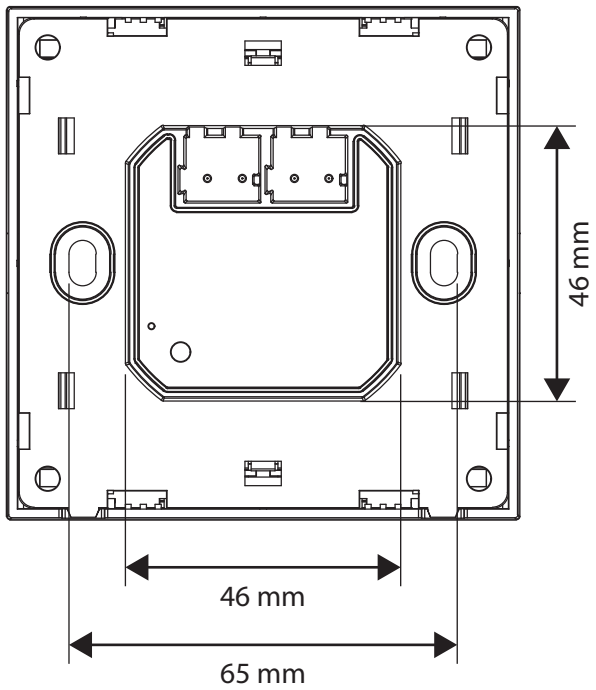


Series:	ED8/ED8B
Types of Switches:	Tact Switch
Input Voltage:	24V DC
Installation Method:	86mm Wall Box
Touch Lifespan:	100,000 times
Surface Materials:	Aluminum/Plastic
Product Dimensions :	W:86 H:86 D:9.9mm

3.1.3 D89/D8C size diagram

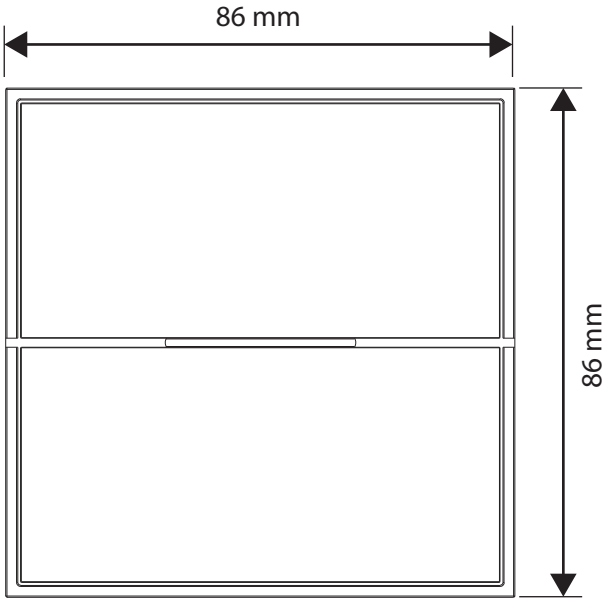


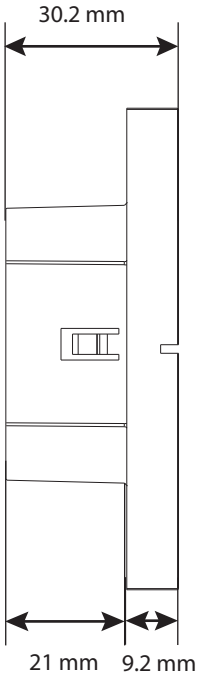


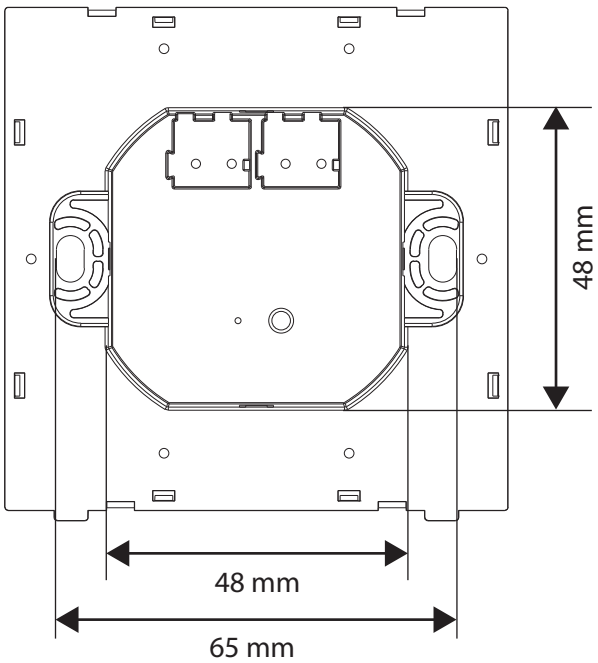


Series:	D89/D8C
Types of Switches:	Tact Switch
Input Voltage:	24V DC
Installation Method:	86mm Wall Box
Touch Lifespan:	100,000 times
Surface Materials:	Aluminum/Plastic
Product Dimensions :	W:86 H:86 D:11.2mm

3.1.4 D29A size diagram

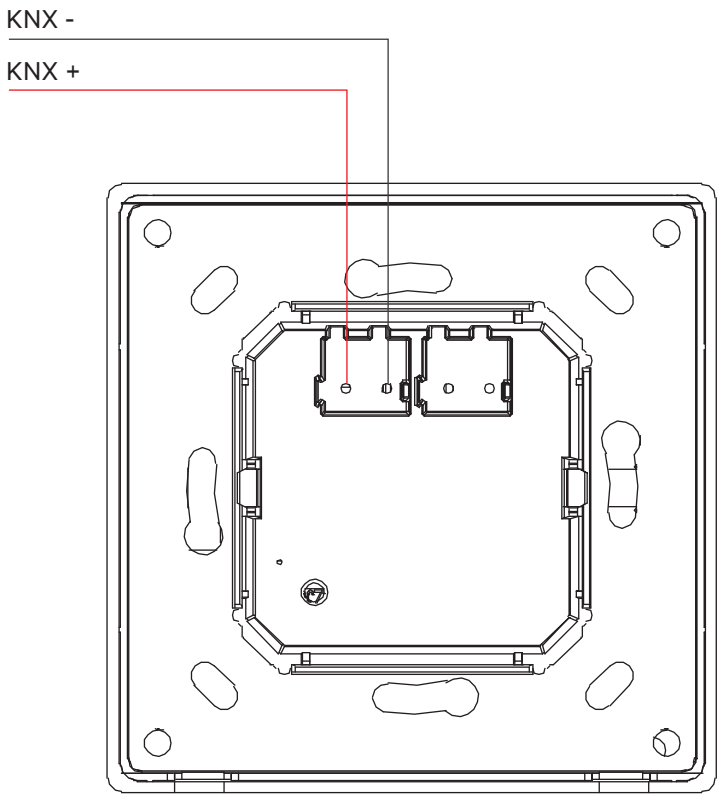






Series:	D29A
Types of Switches:	Tact Switch
Input Voltage:	24V DC
Installation Method:	86mm Wall Box
Touch Lifespan:	100,000 times
Surface Materials:	Aluminum
Product Dimensions :	W:86 H:86 D:9.2mm

3.2.1 Wiring diagram

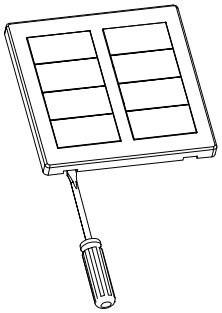


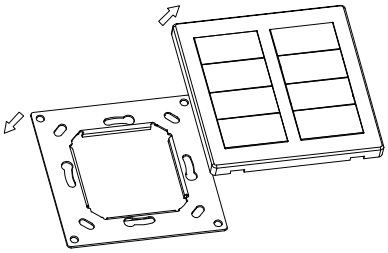
Connect the KNX bus weak current power supply via the KNX signal line.

Precautions:

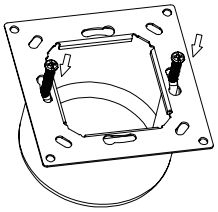
- Must be installed or disassembled by a professional electrician;
- Do not operate with wet hands to prevent electric shock;
- Do not use it with short circuit or overload;
- Installation while powered on is strictly prohibited.

3.2.2 Product installation

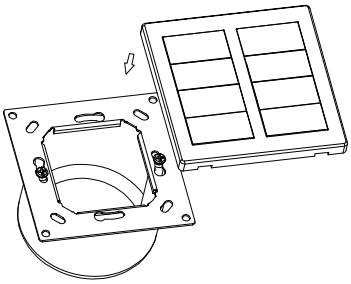


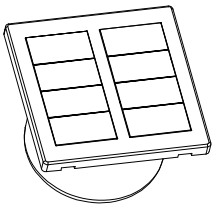


❶ Use a screwdriver to separate the mounting plate from the product



❷ Fix the mounting plate onto the bottom shell





❸ After connecting the wires, reinstall the product to the mounting plate.

4. Project design and application

4.1 Function overview

Application	Maximum number of communication objects	Maximum number of group addresses	Maximum number of combined addresses
LF/ST030PB V1.3	190	884	884

Each panel has the following functions:

- **Switches**

  You can define the rising edge (press) and falling edge (release) of a key to send the message value.

- **Dimming function**

  Supports on/off and relative dimming. Each button can set the dimming mode, such as long press action, dimming mode, etc.

- **Venetian blinds function**

  Supports blinds and openable curtains. Can define the action of long press and working mode.

- **Value sending function**

  You can define the data type of messages sent by each key rising edge (press) and falling edge (release), supporting 1bit, 1byte、 2byte data types.

- **Standard scenario control function**

  Supports calling and saving scenes. Short press is for calling scenes, long press is for saving scenes.

- **Standard delay sending control function**

  Supports delaying the value after pressing a button.

- **Multiplexing function**

  Supports multiple operations (up to 4) after pressing the button.

- **RGB dimming function**

  Supports sending RGB or RGBW dimming value commands after pressing the button.

- **Color temperature function**

  Supports pressing the button to issue a color temperature adjustment command.

- **LED indicator function**

  Each key is equipped with a red and green LED indicator, which can be used to indicate the status and support the alarm function. When there is an alarm message, the LED light will flash.

5. Description of ETS system parameter setting

5.1 "Push button general" parameter setting interface

The "General" parameter setting interface is shown in Figure 5.1, where the number of panel buttons is set.
The number of keys should correspond to the actual number of keys used, otherwise it will not work

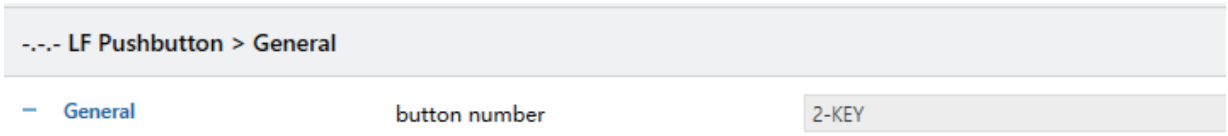


Figure 5.1 "Push button general" parameter setting interface

Parameter "button number"

Here select the number of buttons actually used. Optional:

When the corresponding number of keys is selected, the corresponding key setting page will be opened.T
The parameter "key link function" can be used to configure 1 key, 3 keys, 5 keys and 7 keys

Parameter "wake up backlight mode"

Option "always on" The backlight is always on

Option "always off" The backlight is always off

Option "press dowm or other sensor wake up" The radar and button can be awakened when the light is off

Option "press dowm wake up" single button wake up

Option "when obj1 take on/ obj 0 take off" controls the backlight on/off according to the feedback value

Parameter "backlight off delay time"

backlight off delay time(1s) 5

The backlight is off for 1-60s

Parameter "backlight and keylight dimmer brightness"

backlight and keylight dimmer brightness 100

Backlight and button light brightness 0-100%

Parameter "backlight and keylight dimmer brightness"

Power dowm or reset whether to remember the status
- (●) No memory after power dowm
- ( ) Memory after power dowm and reset reports the

Select whether the power-off reset function is enabled

Parameter "relay1-4 enable" enables the relay object

relay1 enable/disable	(●) disable	( ) enable
relay2 enable/disable	(●) disable	( ) enable
relay3 enable/disable	(●) disable	( ) enable
relay4 enable/disable	(●) disable	( ) enable

There should be a relay to match the circuit board

relay1 enable/disable	( ) disable	(●) enable
relay1 mode	(●) relay value:on(1) / off(0)	
	( ) relay value:on(0) / off(1)	

The relay switch value is switched to 0/1

5.2 Button function setting

The function of each key is the same. The following parameters are described with one key as an example.

5.2.1 "Switching" function

The "Switching" parameter setting interface is shown in Figure 5.2, where the user can set the messages sent when pressing, releasing and holding.

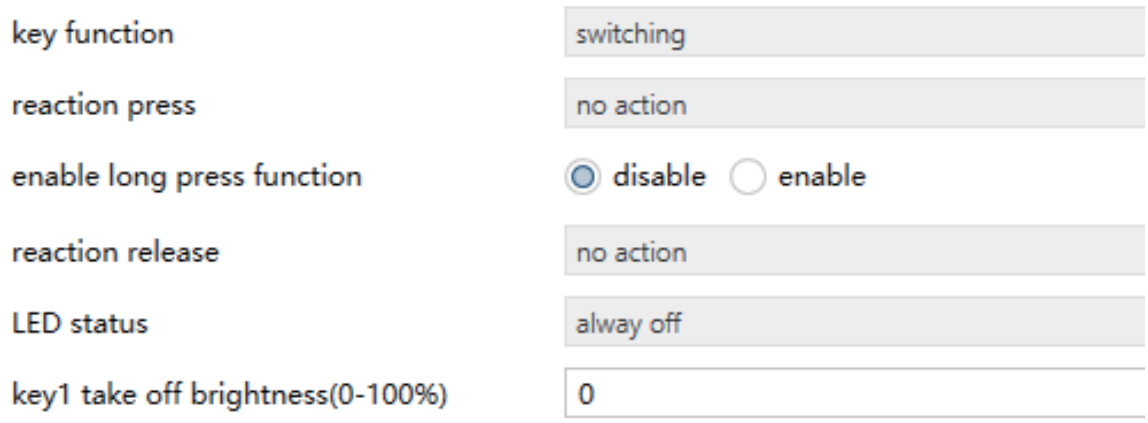


Figure 5.2 "Switching" parameter setting interface

Parameter "Reaction on pressing" / "Reaction on release"

This parameter is used to define the action of pressing and releasing a key, which can send a 1bit "on or off" message. A message can be an "ON" message or an "OFF" message. Option:

- **No reaction**
- **On**
- **Off**
- **toggle**

When the option is "No reaction", no action will be performed.
When the option is "toggle", the message of "ON/OFF" is alternately sent.
When the long press enable function and the release function cannot be used together, "LED status" is enabled

This parameter is used for the function of the button light. It can be configured to turn on and off the light, or it can be linked to the state group object of the light according to the pressing and bouncing of the button. Options:

- **alway on** Always on
- **alway off** Always off
- **toggle** On/off switch
- **Press/on release/off** Press to light and release to turn off
- **Press/off release/on** to turn off and press on to turn on

- **when feedback 0/on when feedback 1off (bit)** The key light object is on when it is 0 and off when it is 1
- **when feedback 1/on when feedback 0off (bit)** The key light object is on when it is 1 and off when it is 0
- **when feedback preset value on or off (1byte)** When the key light object is 1byte, you can configure the corresponding data
- **when feedback scene number** When using the scene, the light state can be obtained through the object
- **take on brightness 0-100%** The percentage of lights that are on
- **take on brightness 0-100%** The percentage of lights out 100%
- **delay take off led time (100ms)** Time for the lamp to go out

Parameter "key link function"

This function can link two keys together. When KEY2 Link to KEY1 is selected, KEY1 and KEY2 are linked at the same time, which can be applied to 1 consecutive 2 keys, 2 consecutive 4 keys, 3 consecutive 6 keys and 4 consecutive 8 keys.

5.2.2 "dimming" function

The "dimming" parameter settings interface is shown in Figure 5.3. The panel supports on/off and dimming functions, with two communication objects that can be used for both on/off and dimming operations. On/off actions are distinguished between long press and short press; a short press will perform the on/off action, while a long press will perform the dimming action. It supports two dimming modes: relative dimming and initial dimming.

- **dimmer mode** Stepping dimming and start-stop dimming are optional
- **reaction on short press** Short press the switch
- **reaction on long press** Long press the switch
- **Interval for telegram repetitions (100ms)** The interval time for sending dimming messages
- **KEY1 dimmer action mode** Relative and absolute dimming can be selected

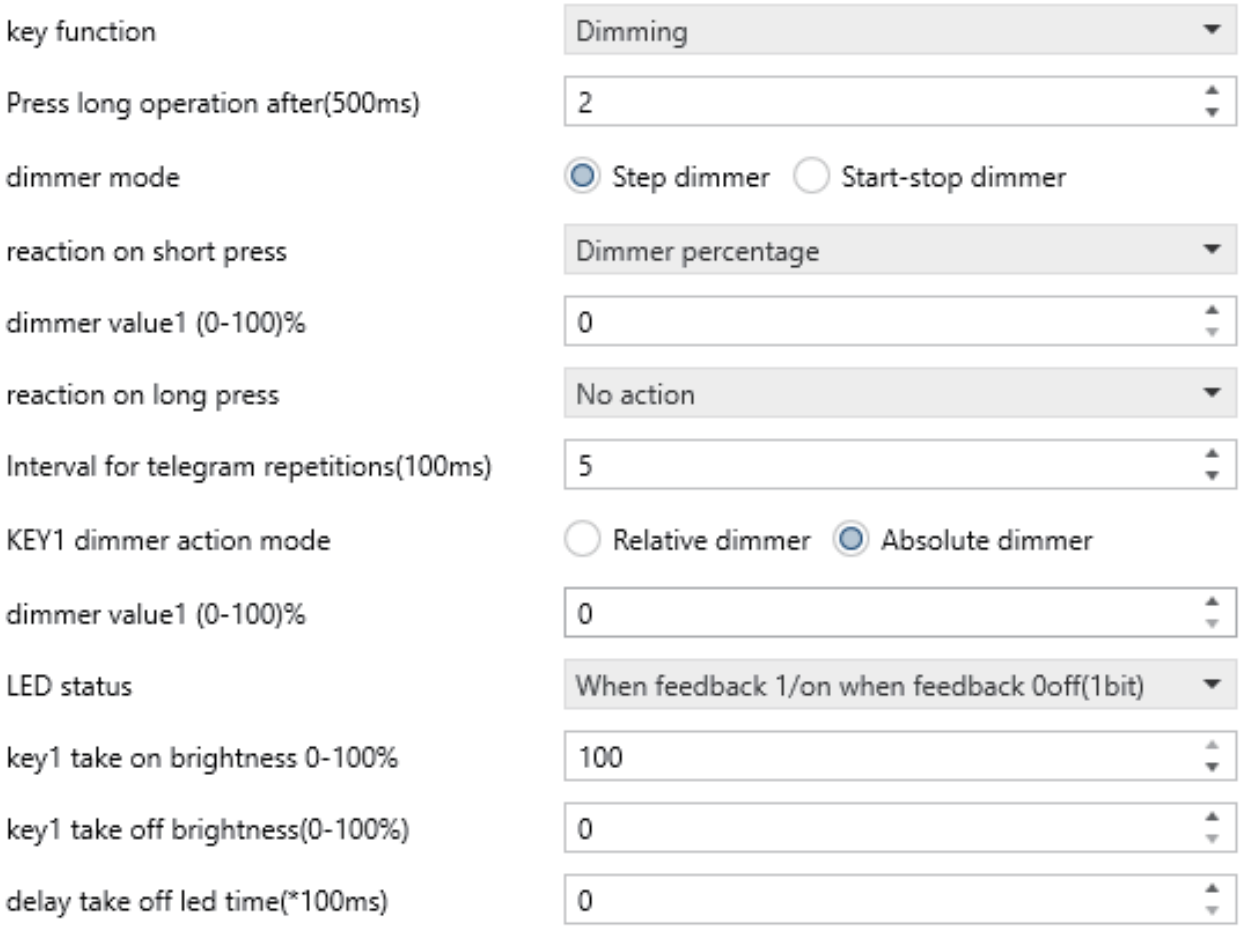


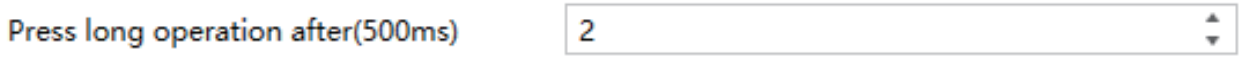
Figure 5.3 "Dimming" parameter setting interface

Parameter "key function"

Select dimming

Parameter "press long operation after (500ms)"

This parameter is used to define the time that distinguishes between long press and short press. If the key press time exceeds the set value, the key press operation i s determined as long press. Optional:



500ms-7500ms

Parameter "dimmer mode"

This parameter is used to set the dimming mode. Each button supports two modes:

- **Step dimming**
- **Start-stop dimming**

When "Step dimming" is selected as the relative dimming mode, "start-stop dimming" is selected as the start and stop dimming mode

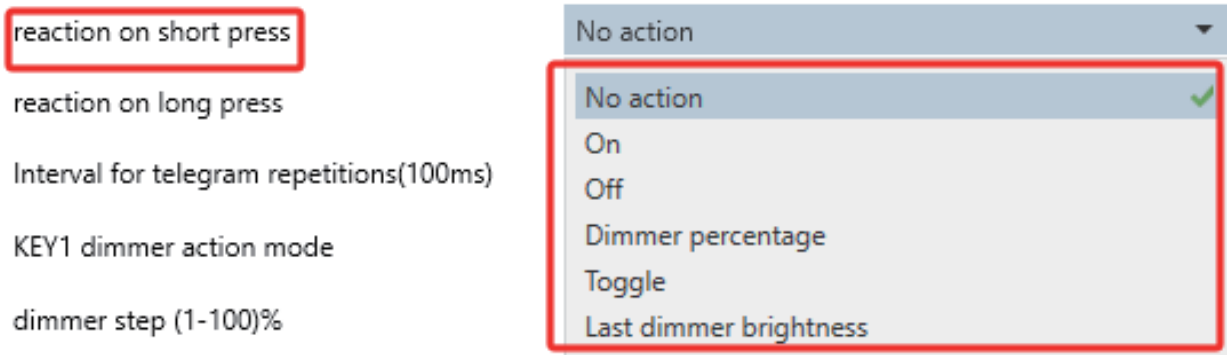
Parameter "dimmer step (1-100%)"

dimmer step (1-100%), this parameter can select the dimming step number option: the adjustment range is 1-100%.

Parameter "reaction on short press"

This parameter is a short press function, which can be selected to turn on, off, dim by percentage, and alternate between on and off

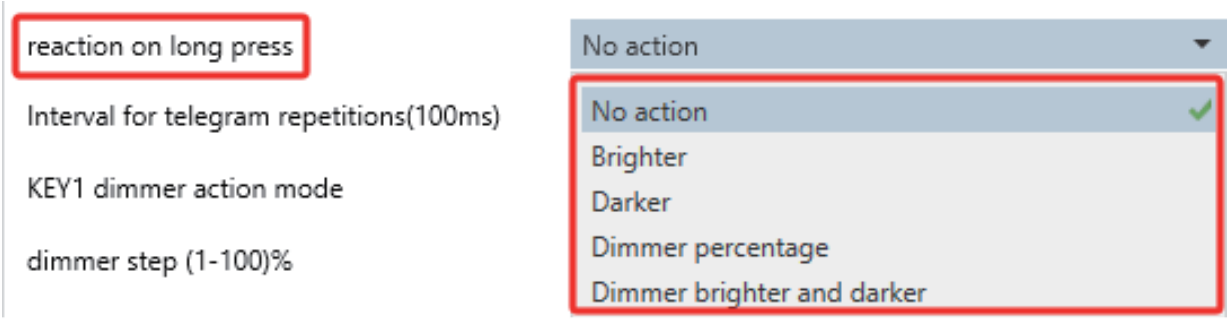
- **no action** No action
- **On** Press the start button
- **Off** Press to turn it off
- **dimmer percentage** Percentage dimming
- **toggle** On-off alternation
- **Last dimmer brightness** Adjust the final brightness



Parameter "reaction on short press"

Long press to adjust the relative dimming of brightening and extinguishing. Options:

- **No action** No action
- **Brighter** Full brightness
- **Darker** Total darkness
- **Dimmer percentage** Adjust the light percentage
- **Dimmer brighter and darker** Brighten and dim switch

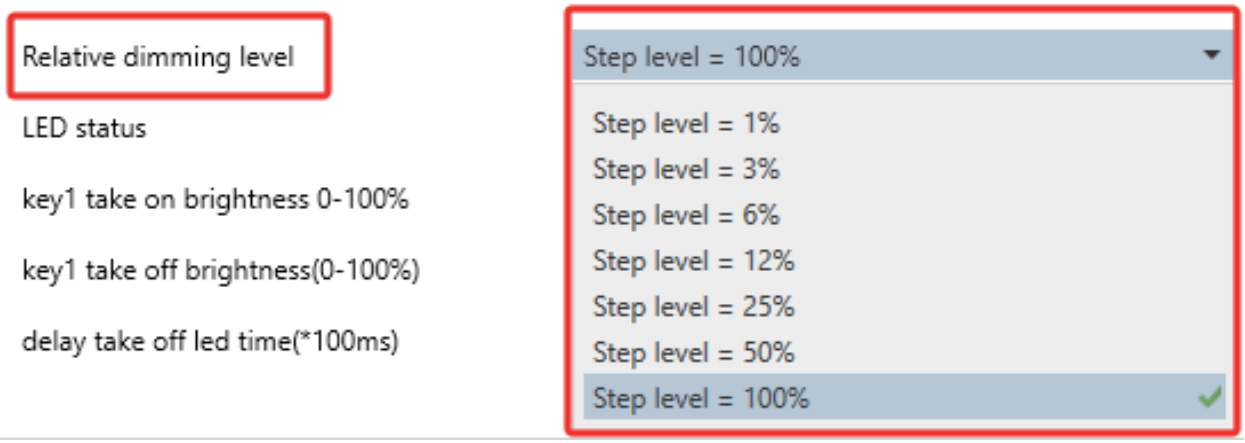


Parameter "Interval for telegram repetitions100ms (0-255)"

This function sends messages at intervals of long press, with a base of 100ms

Parameter "KEY1 dimmer action mode": button dimming mode

Option "relative dimmer": Percentage dimming, including the "Relative dimming level" percentage dimming level option as shown in the following figure:



Option "absolute dimmer": Absolute dimming, including the "dimmer step" absolute dimming value option, range "1-100"

5.2.3 "Shutter control" function

- The "Blind" parameter settings interface is shown in Figure 5.4.
- This function supports both louvers and sliding curtains. In the case of louvers, pressing the switch sends a curtain movement command or an angle adjustment command;
- Short-pressing always triggers a curtain movement command, while long-pressing always triggers an angle adjustment command. You can specify whether the louver control is triggered through two 1-bit communication objects "travel" and "adjust," or two 1-byte communication objects.
- If the communication object "adjust" is set to 1-bit, it can send angle adjustment commands cyclically. For blackout curtains, short-pressing triggers a movement command, and long-pressing triggers an angle adjustment command To trigger a stop command, the light-blocking curtain control is triggered by two 1bit communication objects "move" and "stop"

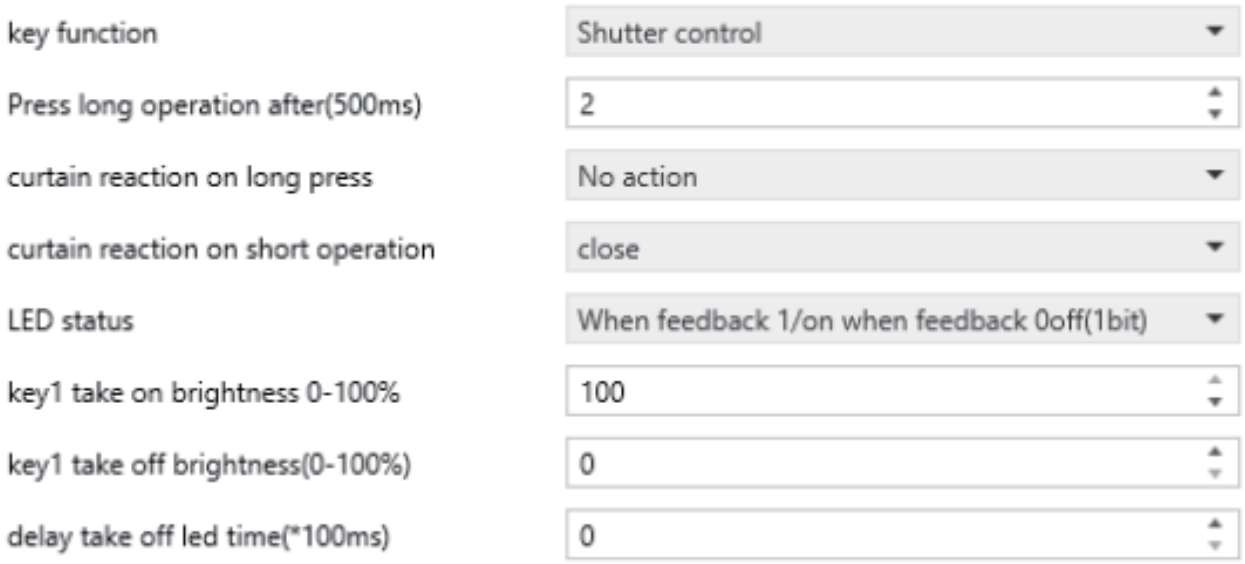
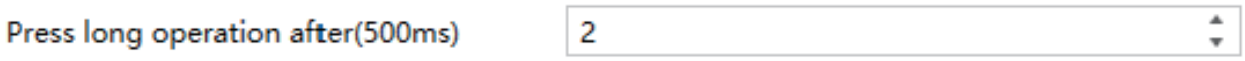


Figure 5.4 "Blind" parameter Settings interface

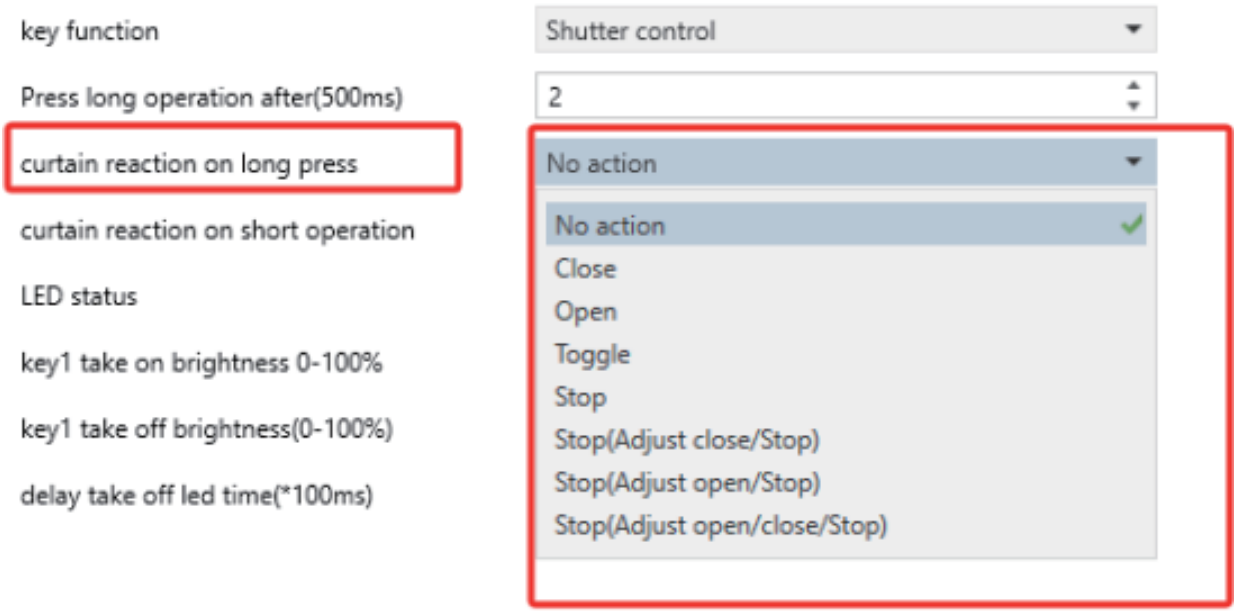
Parameter "Press long operation after (500ms)"

This parameter is used to define the time that distinguishes between long press and short press. If the key press time exceeds the set value, the key press operation is determined as long press. The base time is 500ms, and the option is:



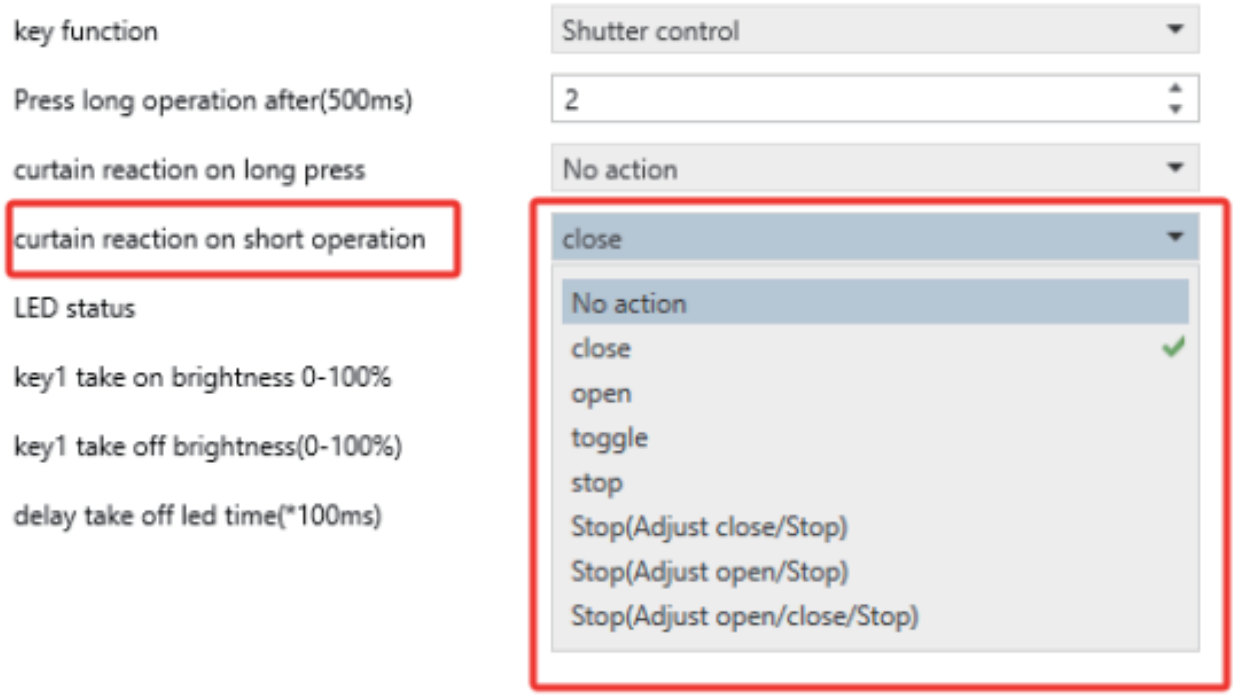
Parameter "curtain reaction on long press" is optional (long press)

- **No action** No operation
- **Close** Close the curtains
- **Open** Open the curtains
- **Toggle** Switch the curtains
- **Stop** Turn off the curtains
- **Stop (Adjust close/Stop)** To close the curtains-stop the curtains alternating
- **Stop (Adjust open/Stop)** Open the curtains-stop the curtains alternately
- **Stop (Adjust open/close/Stop)** Open the curtain-close the curtain-stop the curtain alternately



Parameter "curtain reaction on short operation" is optional (short press)

- **No action** No operation
- **Close** Close the curtains
- **Open** Open the curtains
- **Toggle** Switch the curtains
- **Stop (Adjust close/Stop)** To close the curtains-stop the curtains alternating
- **Stop (Adjust open/Stop)** Open the curtains-stop the curtains alternately
- **Stop (Adjust open/close/Stop)** Open the curtain-close the curtain-stop the curtain alternately



5.2.4 "Value send" function

The "value send" parameter setting interface is shown in Figure 5.5. Through this application panel, users can trigger two different objects to send preset values by operating the switch or releasing the switch.

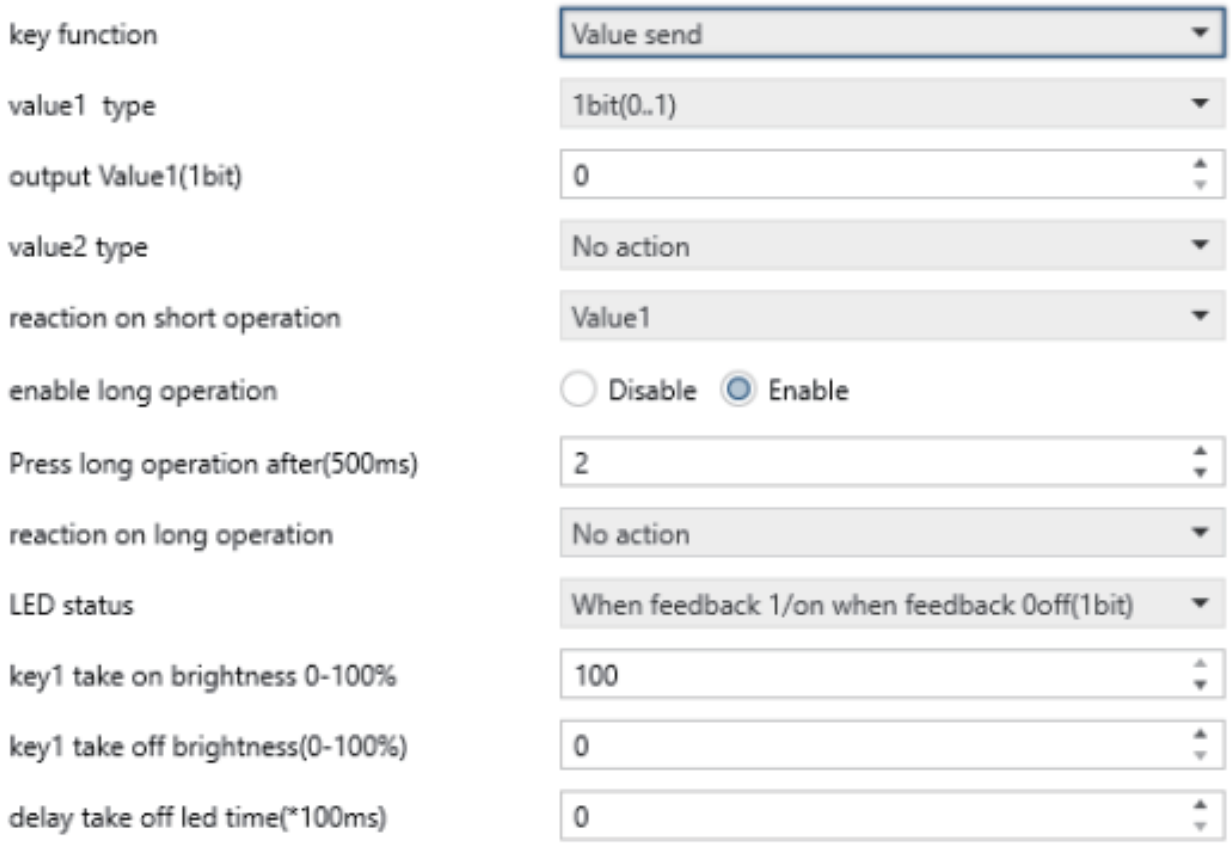


Figure 5.5 "value send" parameter setting interface

Parameter "value1 type"

The data type selection option for the parameter sending value 1:

- **1bit**
- **1byte0..255**
- **2byte0-65535**

Parameter "output value1"

This parameter can be configured to send the output value of 1. When 1bit is selected, the value range is 0-1; when 1byte is selected, the value range is 0-255; and when 2byte is selected, the value range is 0-65535.

Parameter "value2 type"

Dimmer step (1-100%), this parameter can select the dimming step number option: the adjustment range is 1-100%.

The data type selection option for the parameter sending value 2 is:

- **1bit**
- **1byte0..255**
- **2byte0-65535**

Parameter "output value2"

This parameter can be configured to send the output value of 2. When 1bit is selected, the value range is 0-1; when 1byte is selected, the value range is 0-255; and when 2byte is selected, the value range is 0-65535.

Parameter "Reaction on short operation"

This parameter can be configured to send the value option when pressed briefly:

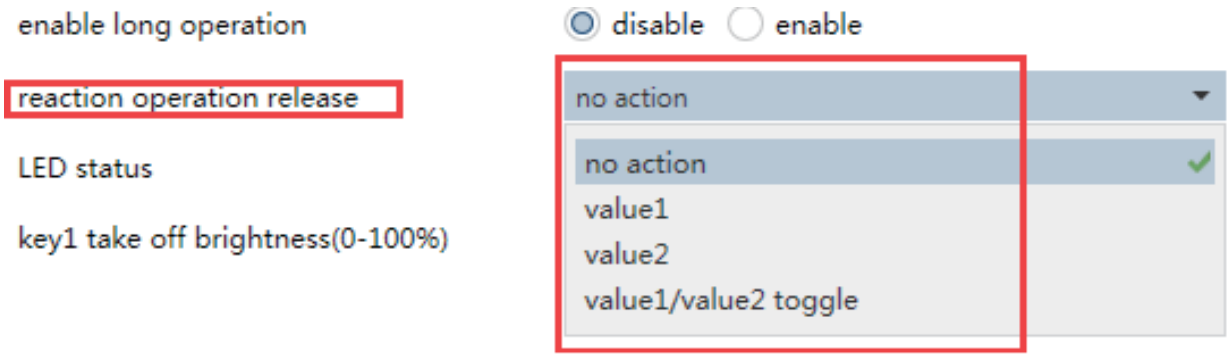
- **No action**
- **Value1**
- **Value2**
- **Value1/value2 toggle**

Parameter "enable long operation" Whether this parameter enables long pressT

Select "disable" to close the package containing "reaction operation release" and press release (Short press) option

This parameter can be configured to send the value option when pressed briefly:

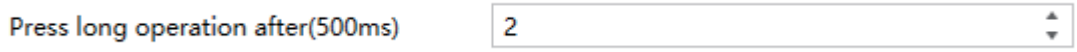
- **No action**
- **Value1**
- **Value2**
- **Value1/value2 toggle**



Option "enable" enables (default option)

Parameter "press long operation after (500ms)"

This parameter can be configured for the duration of a long press, with a base time of 500ms.



Parameter "reaction on long operation"

This parameter is the value selected when the output is selected during long press.

- **No action**
- **Value1**
- **Value2**

5.2.5 "Scene" function

The "Scene" parameter setting interface is shown in Figure 5.6. Through this application, users can call a preset scene number by operating the panel switch. Users can enable the scene save function and trigger a scene save command through a long press operation.

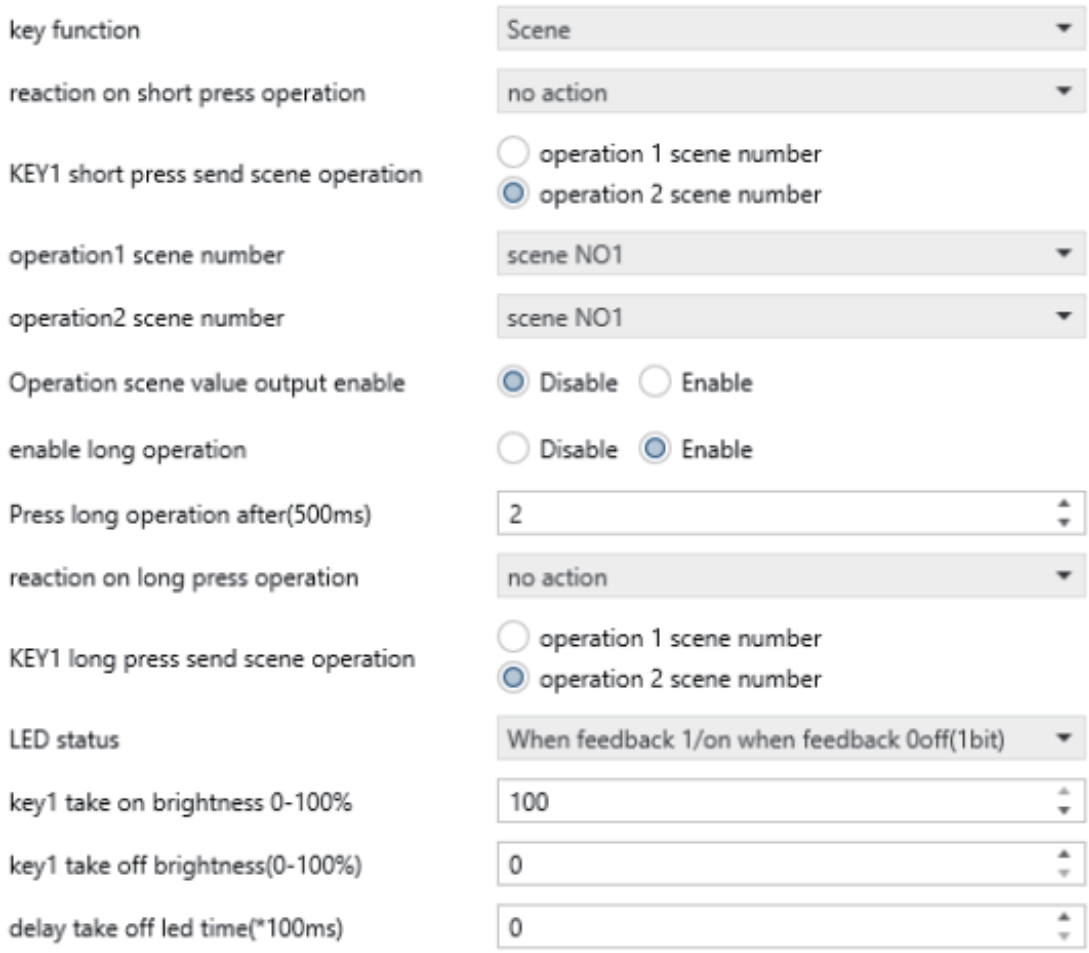


Figure 5.6 "Scene" parameter Settings interface

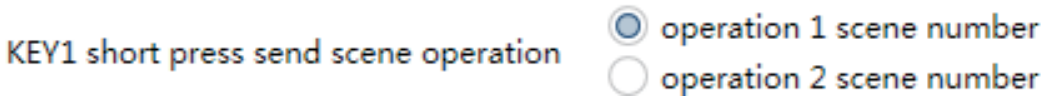
Parameter "reaction on short press operation"

Short press of this parameter can save the scene and call the scene options:

- **No action** No action
- **Recall single scene** Call the preset scene
- **Save single scene** Save the scene
- **Recall toggle scene** Call alternate scenes

Parameter "KEY1 short press send scene operation"

KEY1 Short press operation scenario, this parameter can select scene 1 or scene 2.

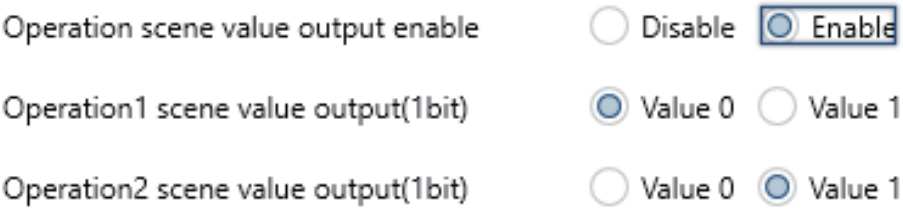


Parameter "operation1 sence number"

This parameter is the scene number (1-64) called by short press.

Parameter "Operation sence value output enable"

Whether this parameter enables the operation of the scene output value.



After enabling, you can select the output value of operation 1 and operation 2.

Parameter "enable long operation"

Whether this parameter enables the long press function.

Parameter "press long operation after (500ms)"

This parameter can be configured to hold the button for a long time.

Parameter "enable long operation" enables long press

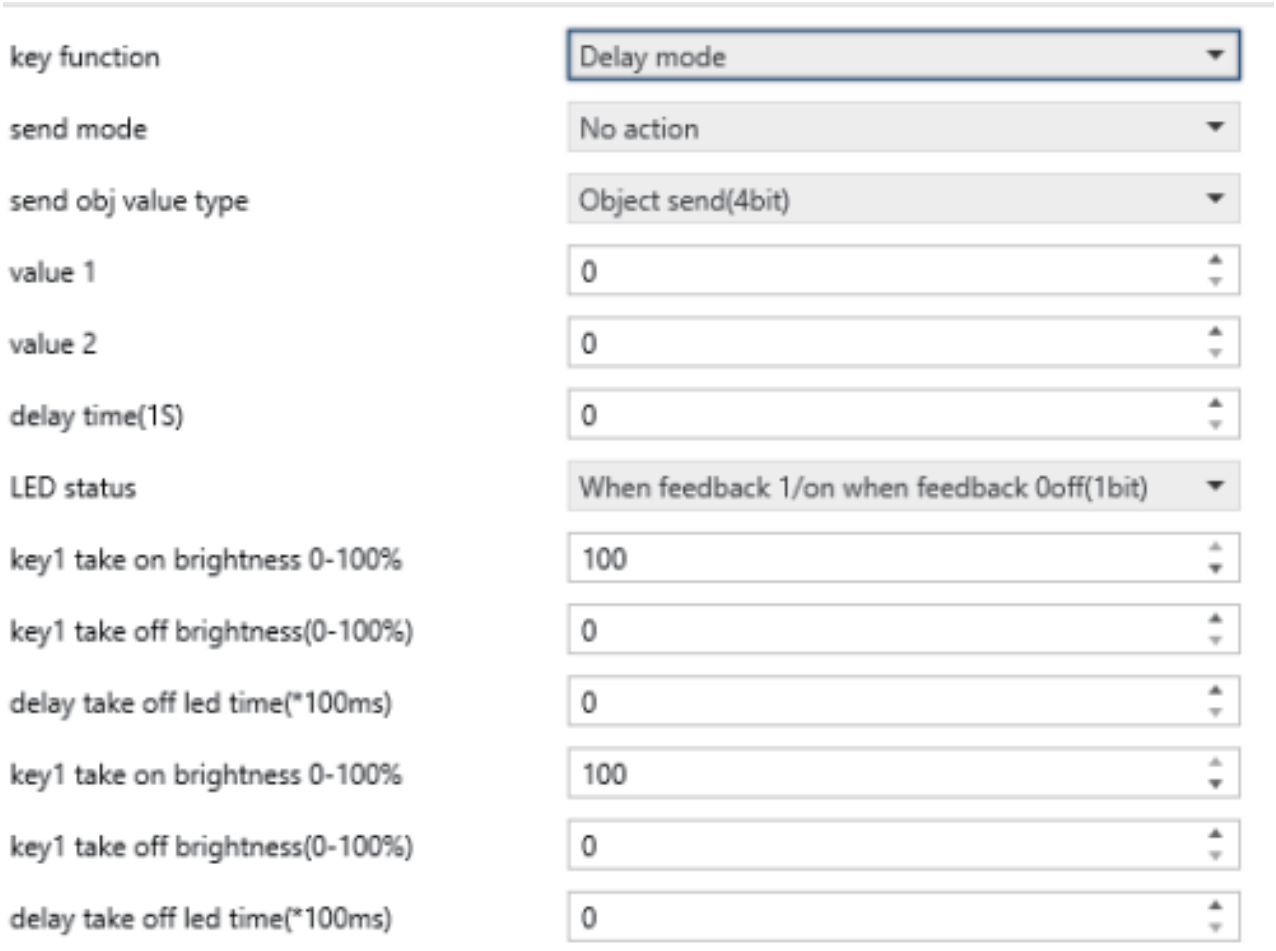
If you want to hold down:
Parameter "reaction on long press operation"
Long press this parameter to save the scene and call the scene options:

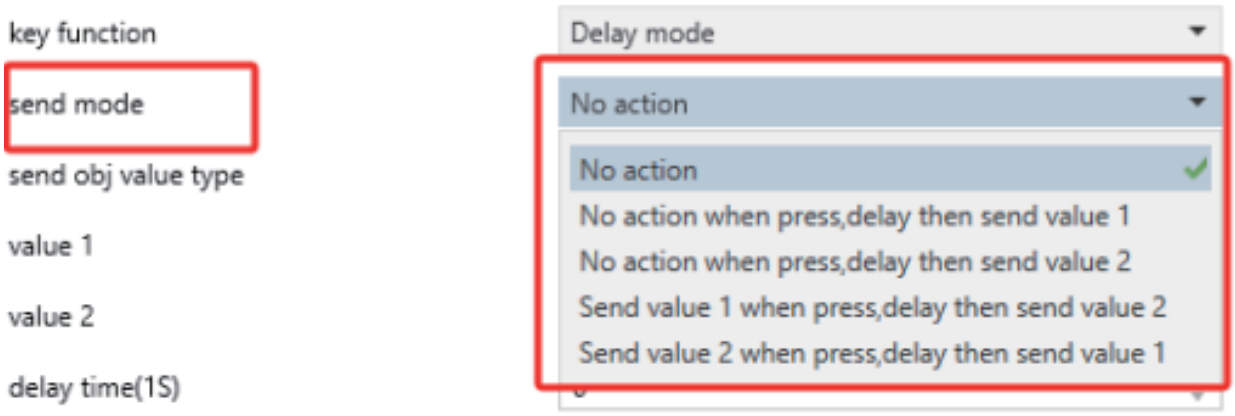
- **No action** No action
- **Recall single scene** Restore the preset scene
- **Save single scene** Save the scene
- **Recall toggle scene** Switch scenes

Parameter "KEY1 long press send scene operation"

KEY1 Long press the operation scene, this parameter can select scene 1 or scene 2.

5.2.6 "Delay mode" function

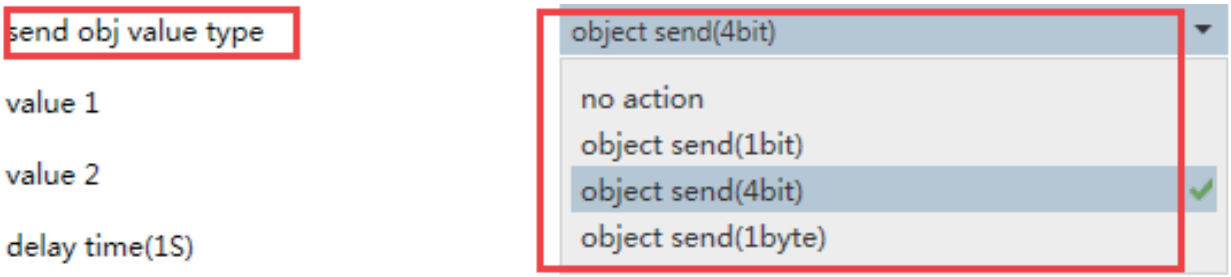




Include options:

- **No action** No operation
- **No action when press, delay then send value1** press without action, delay sending value1
- **No action when press, delay then send value2** press without action, delay sending value2
- **Send value1 when press, delay then send value2** press send value1, delay send value2
- **Send value2 when press, delay then send value1** press send value2, delay send value1

Parameter "send obj value type" is the type of sending object



Include options:

- **No action** No operation
- **Object send (1 bit)** Object sent (1 byte)
- **Object send (4 bits)** Object sent (4 bytes)
- **Object send (1 Bytet)** Object sent (1 bit)t

Parameter "value 1" and "value 2" values range from 0 to 15
Parameter "delay time (1s)" Delay time 1s Range 0-65535

Parameter "LED status" function

Each LED function is the same, and the following parameter description takes one of them as an example.

The "LED status" function parameter setting interface is shown in Figure 5.9. Each button corresponds to an LED, which can be used for status indication, and can also be used for different colors of indication, as well as flashing alarm indication. LED function and

The key operation is independent of each other, and their parameters and communication objects are set separately.

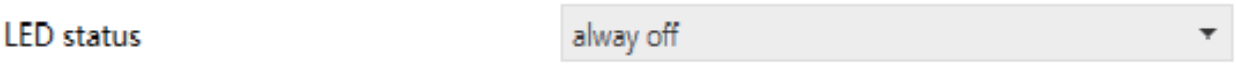
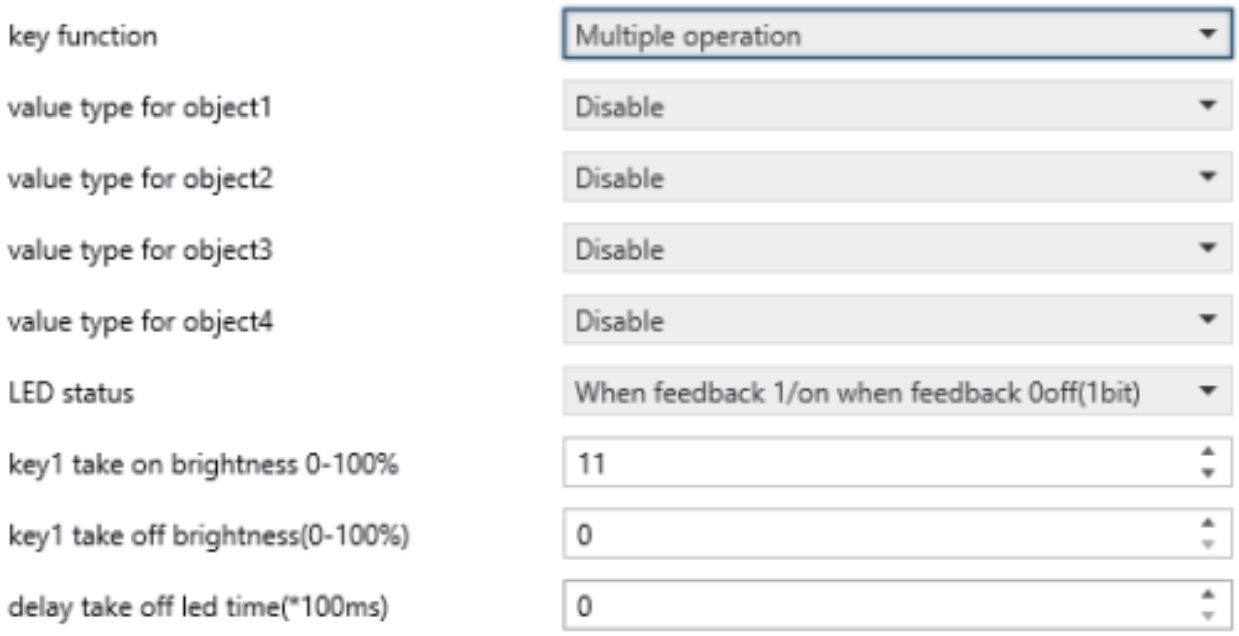


Figure 5.9 "LEDstatus" parameter Settings interface

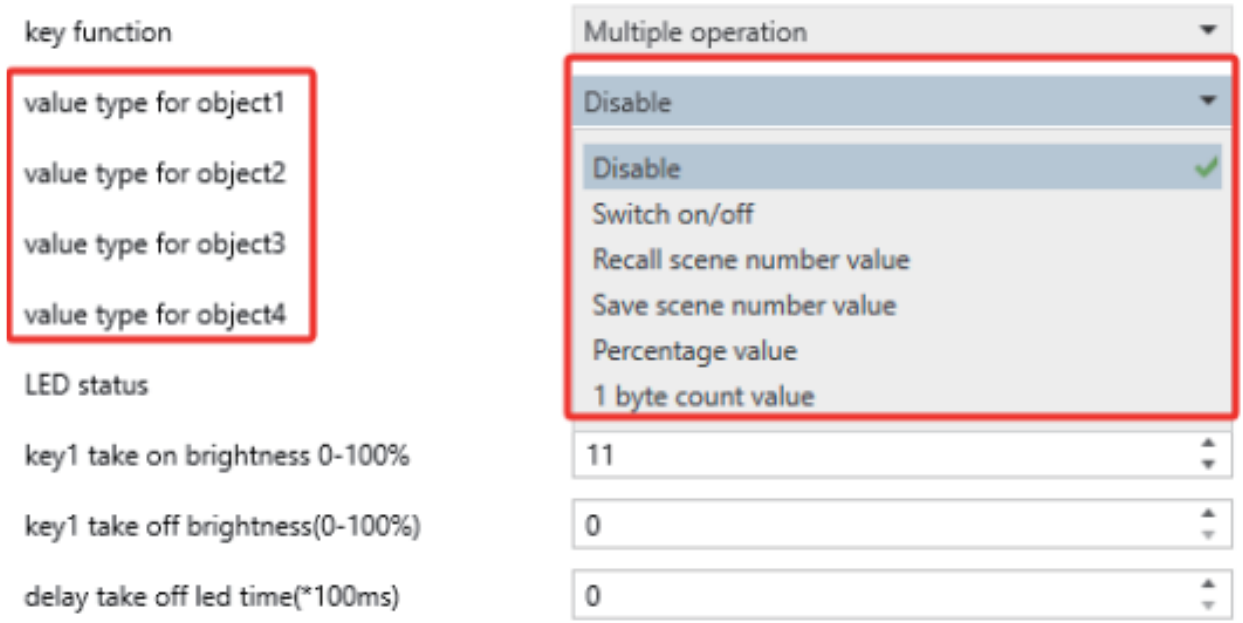
LED status Optional

- **Alway off** Always off
- **Alway on** Always on
- **Toggle** supersede
- **Press/on release off** Press the light to turn on, release the light to turn off
- **Press/off release on** Press to turn off the light, release to turn on the light
- **When feedback 0/on when feedback 1/off** controlled by the light object. When the object receives 0, the light is on
- **When feedback 1/on when feedback 0/off** controlled by the light object. When the object receives 1, the light is on

5.2.7 "Multiple operation" function

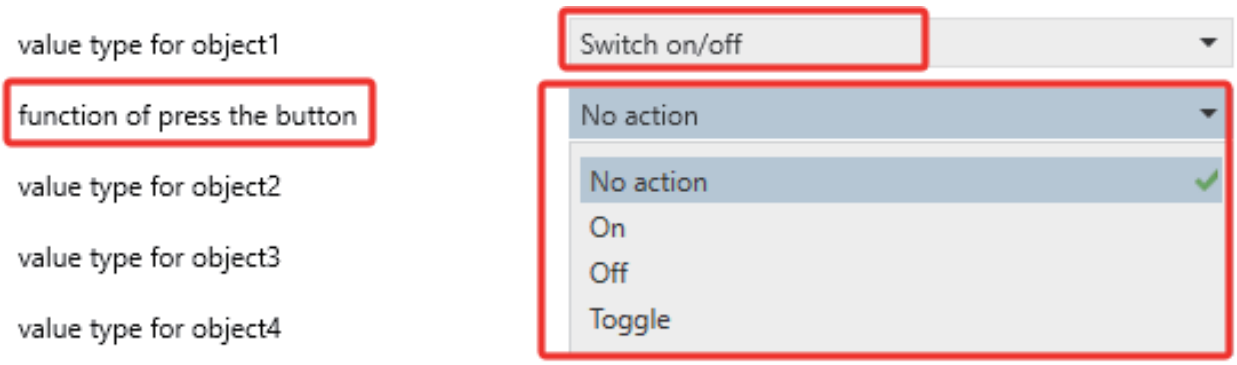


Parameter "value type for object" function

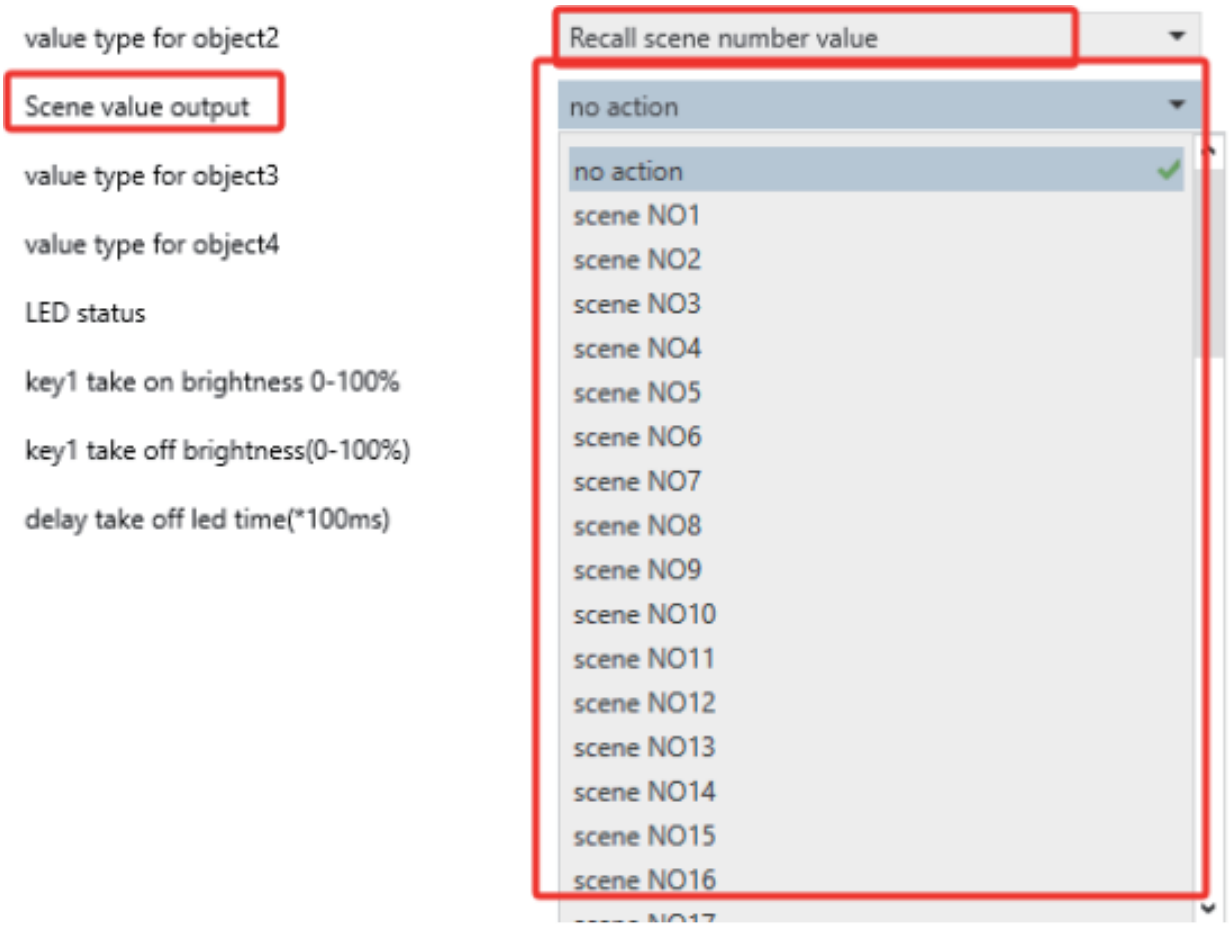


LED status Optional

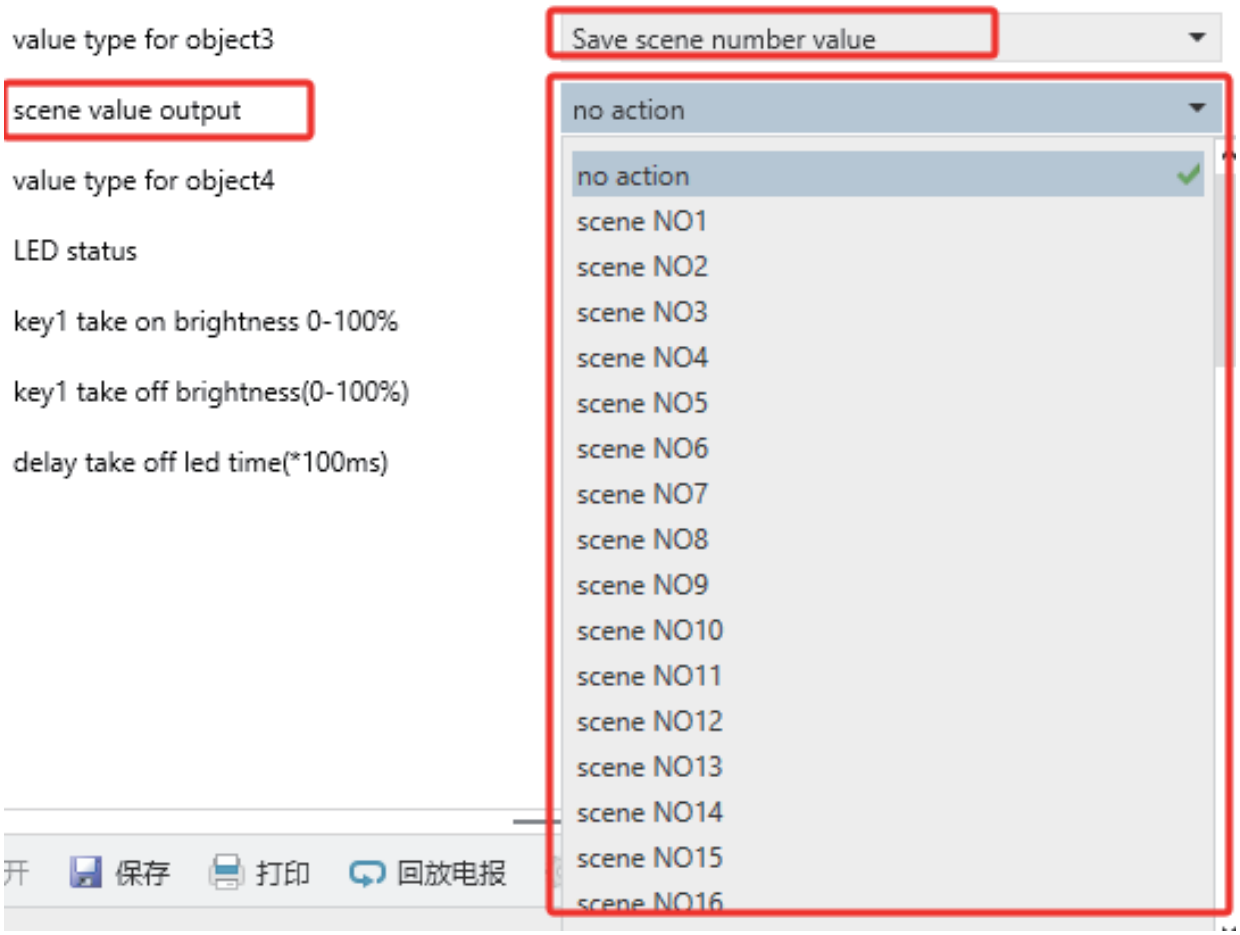
- **Disable** Not enabled
- **Switch on/off** Press no action, send on, off or alternate on, off



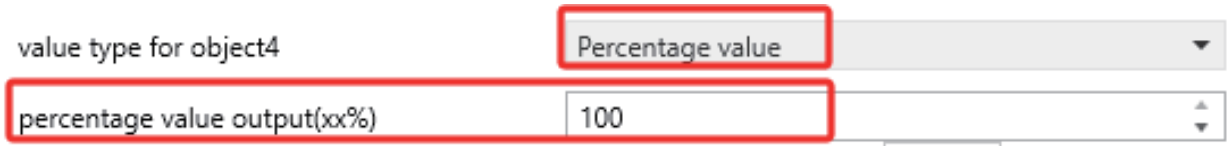
- **Recall scene number value** Use the downgraded scenario



- **Save scene number value** Press Save Scene

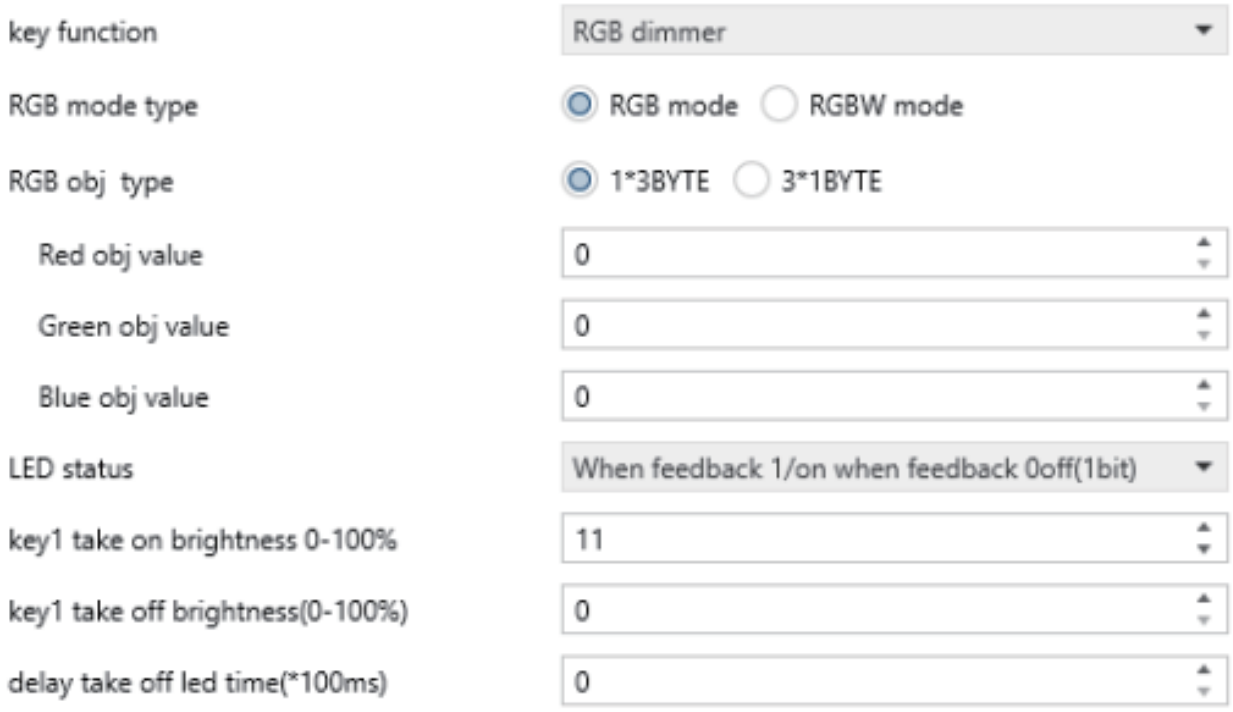


- **Percentage value** Press Send percentage



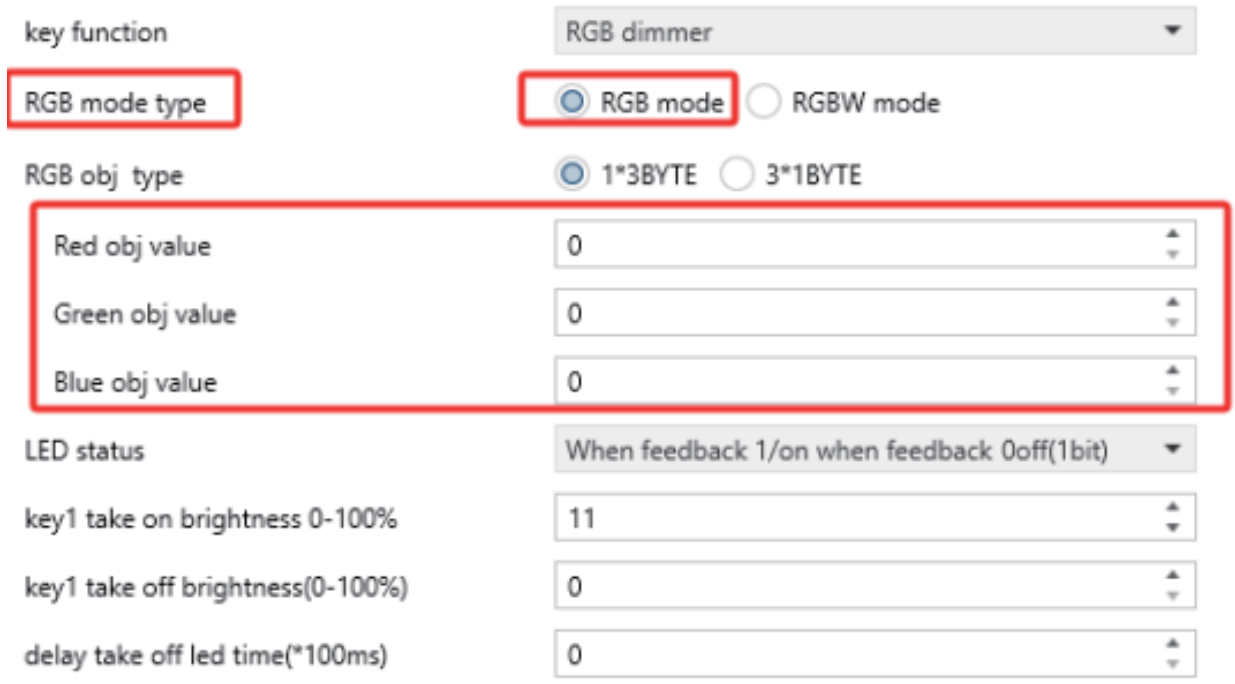
- **1 byte count value** Press the send count value

5.2.8 "RGB dimmer" function

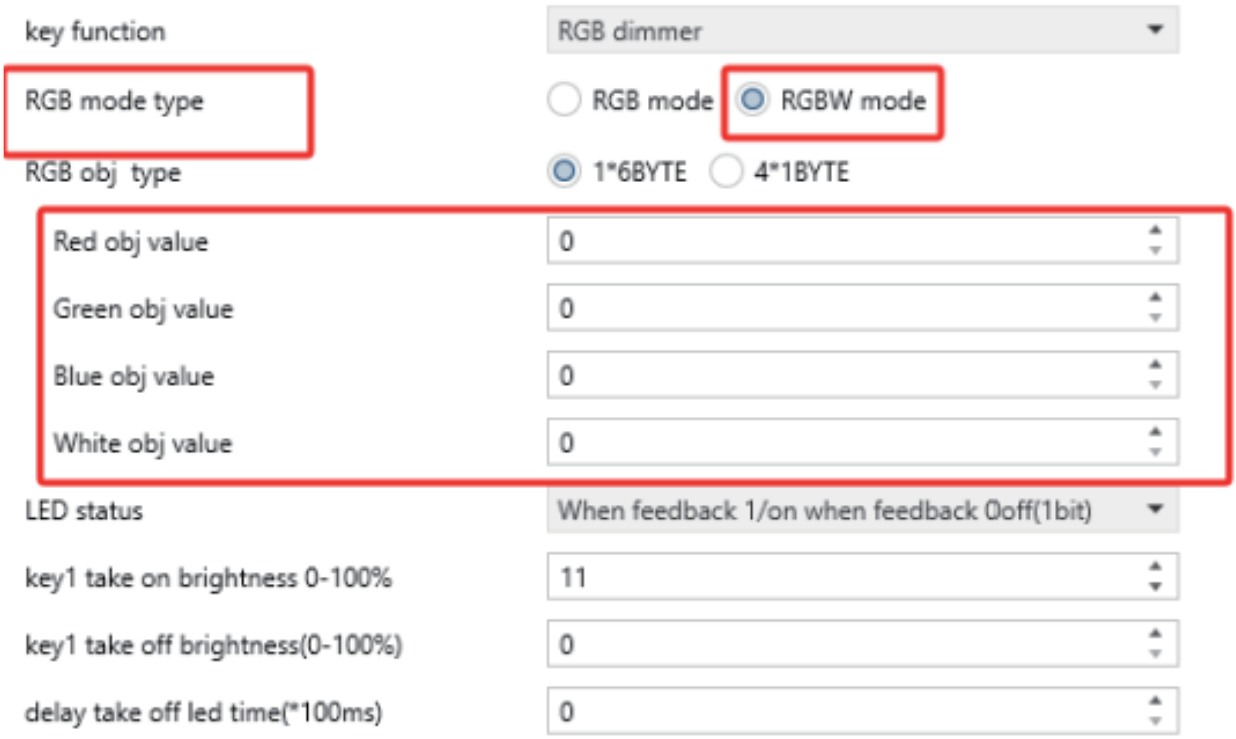


Parameter "value type for object" function

Select RGB mode to fill in the red, green and blue values

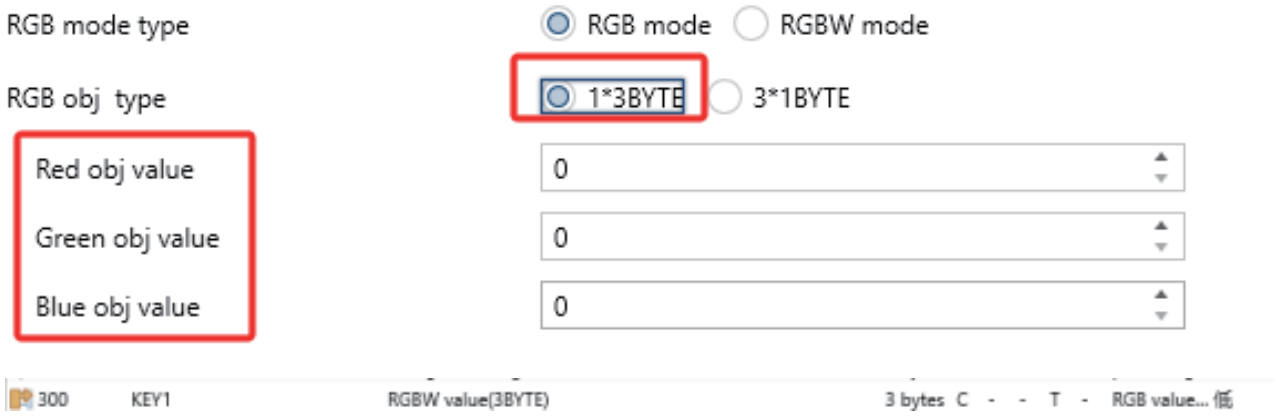


Select RGBW mode to fill in red, green, blue and white values



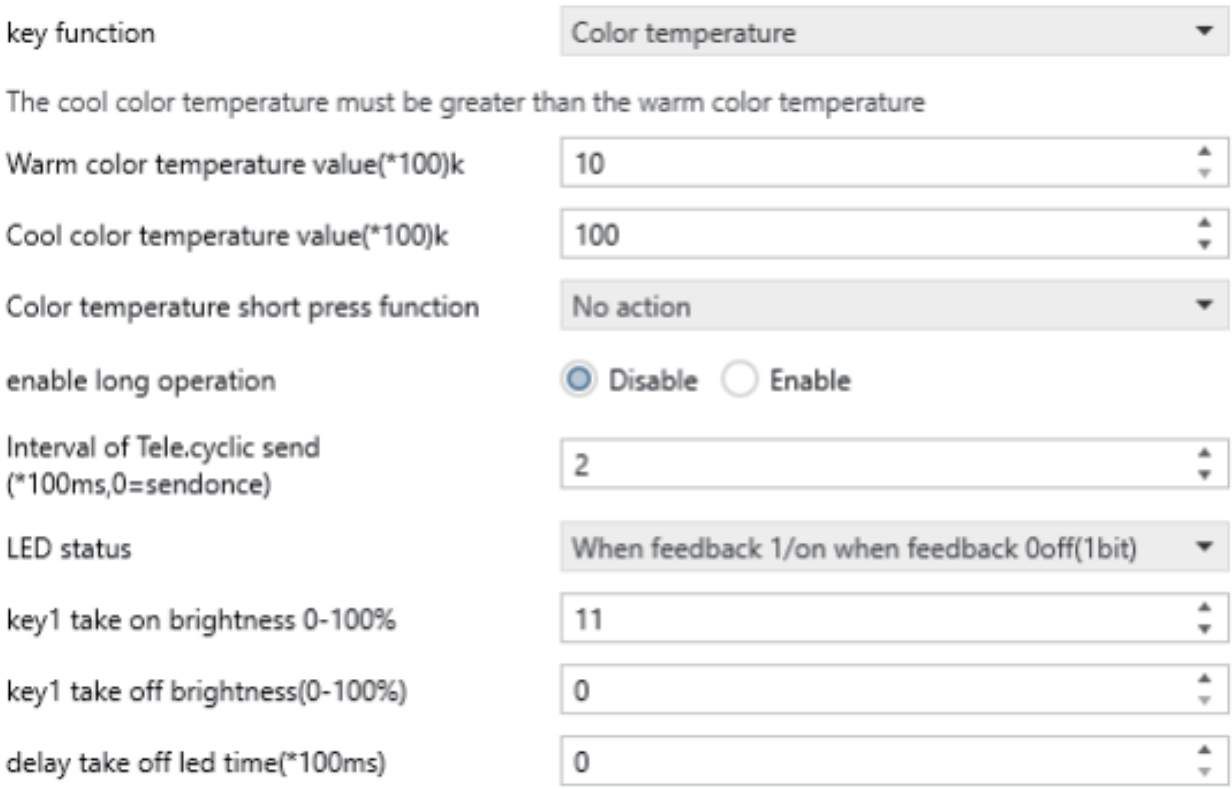
Parameter "RGB mode type" function

Select 1*3BYTE (RGB mode) or 1*6BYTE (RGBW mode), and the RGB or RGBW values in the group object are output in 3BYTE (RGB mode) or 6BYTE (RGBW mode) format.

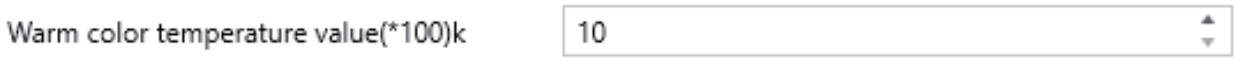


Select 3*1BYTE (RGB mode) or 4*1BYTE (RGBW mode) to output RGB or RGBW values separately in the group object.

5.2.9 "Color temperature" function



Parameter "Warm color temperature value (* 100) k" function, set warm color temperature value

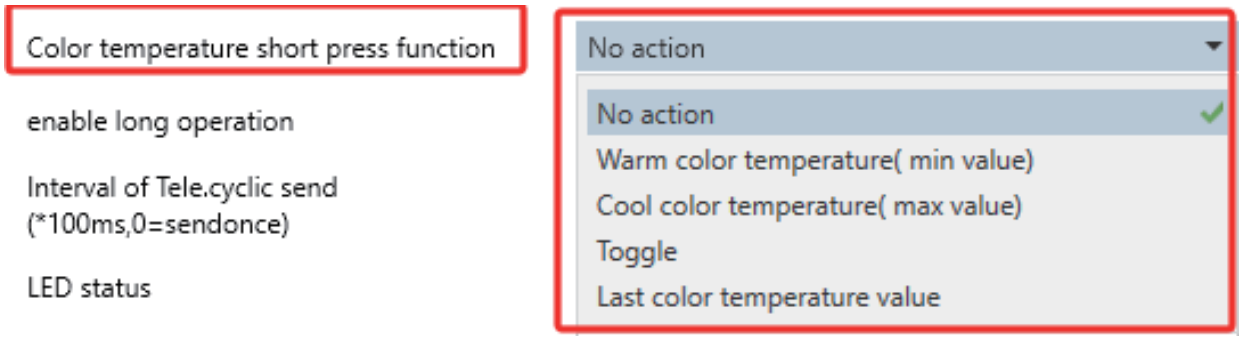


Parameter "Cool color temperature value (* 100) k" function, set the cold color temperature value

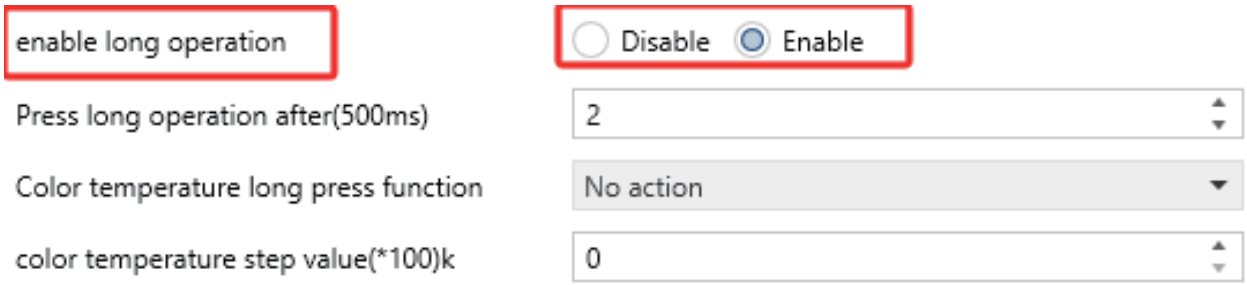
Parameter "Cool temperature short press function" function, set the function corresponding to pressing the button

Include options:

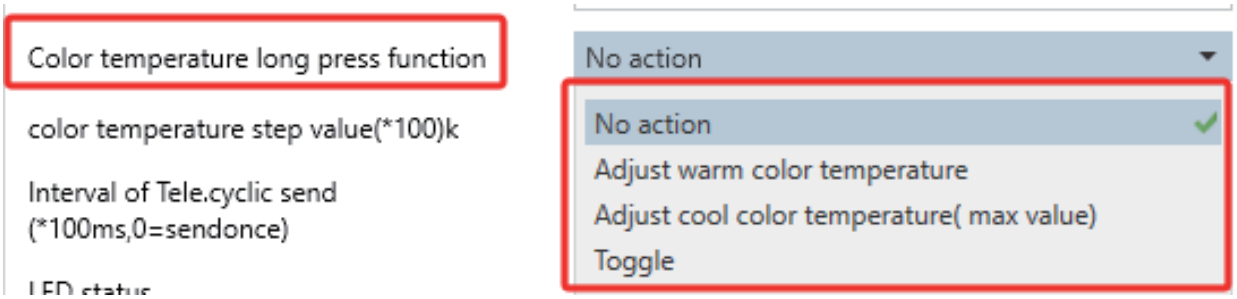
- **No action** No operation
- **Warm color temperature (min value)** Press to send warm color temperature value (minimum value)
- **Cool color temperature (min value)** Press to send the cold color temperature value (maximum)
- **Toggle** Press to alternate sending warm color temperature value (minimum) and cold color temperature value (maximum)
- **Last color temperature value** Send the final color temperature value



Parameter "Cool temperature short press function" function, set whether to enable long press operation



Parameter "Cool temperature short press function" function, set whether to enable long press operation

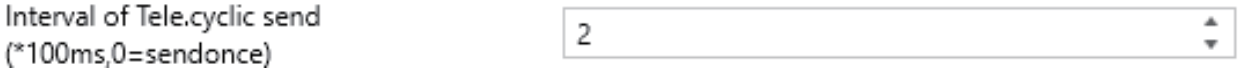


Include options:

- **No action** No operation
- **Adjust warm color temperature** Press to send the warm color temperature value
- **Adjust cool color temperature (min value)** Press to send the cold color temperature value (maximum)
- **Toggle** Press to alternate between warm and cool color temperature values

Parameter "color temperature step value(* 100) k" function, set the color temperature step value

Parameter "Interval of Tele.cyclic send" function, set the interval time of cyclic transmission



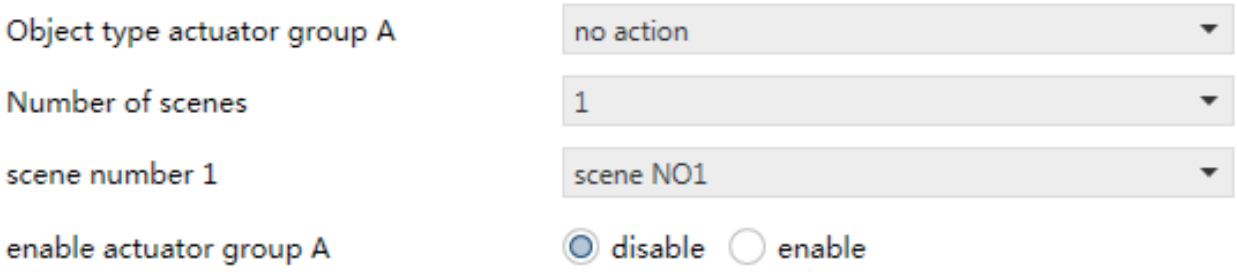
"channel1 scene function" function

Parameter "number of scene" Enable the scene number default disable

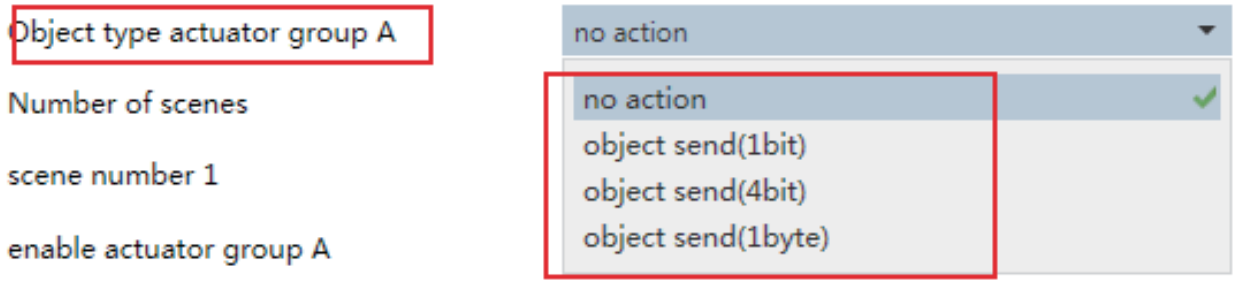
If enabled, the following parameters are available

Parameter "Number of actuator groups", number of execution groups range 1-8 If no actuator is selected, there are no groups

If there are groups, the following options are available



Parameter "object type actuator group A" object data type



There are the following options:

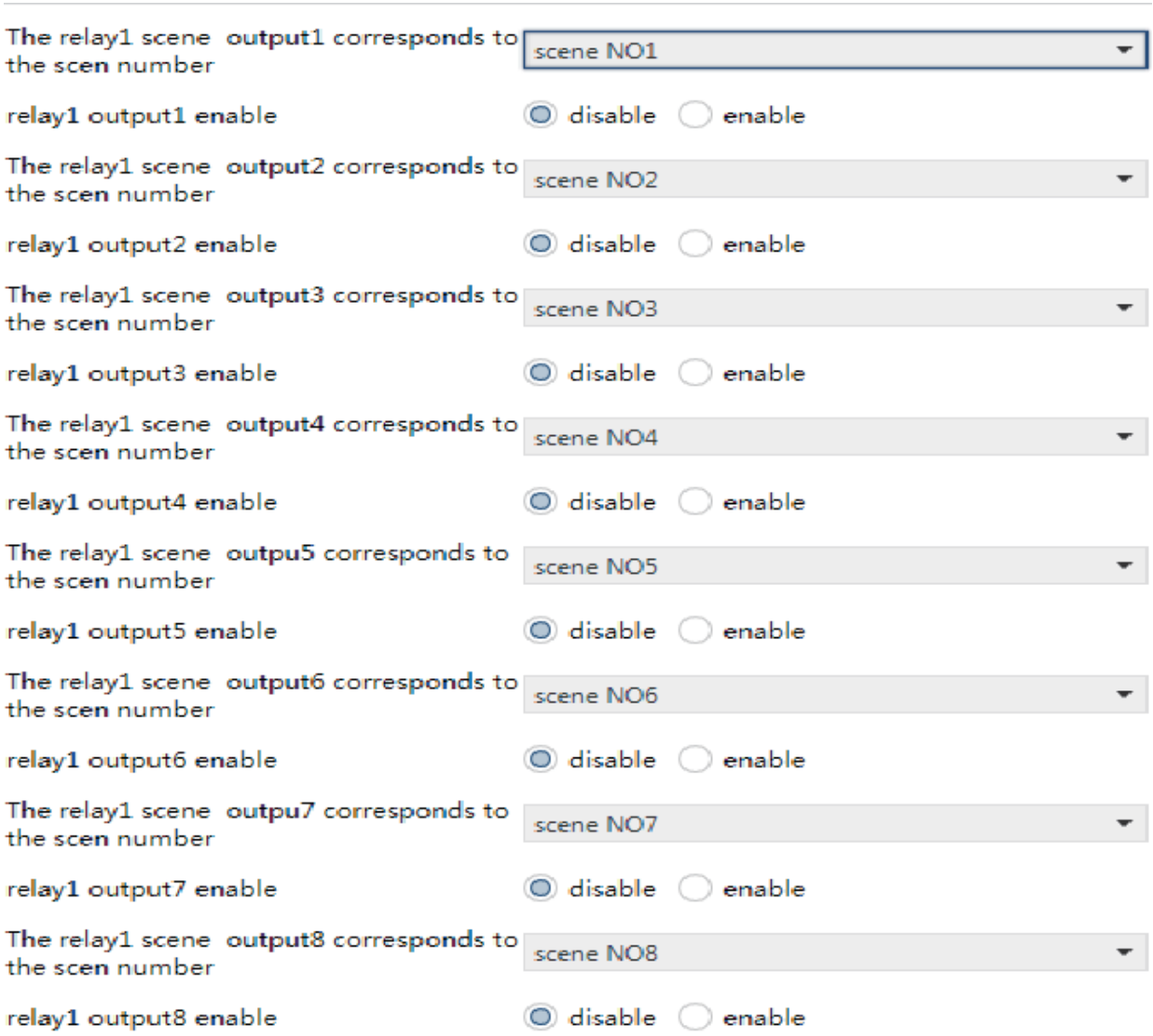
- **No action No operation**
- **Object send (1bit) Object data type 1bit**
- **Object send (4bit) Object data type 4bit**
- **Object send (1byte) Object data type 1byte**

Parameter "number of scenes" Number of scenarios ranges from 1 to 4

Parameter "scene number 1" Scene number Range 1-64 Select option no action then no

Parameter "enable actuator group A" enables group A option disable to turn off enable enabled

"relay1 scene function"



Parameter "the realy1 scene output1 corresponds to the scene number" realy1 scene corresponds to the scene number range 1-64 Select option no action then there is none.

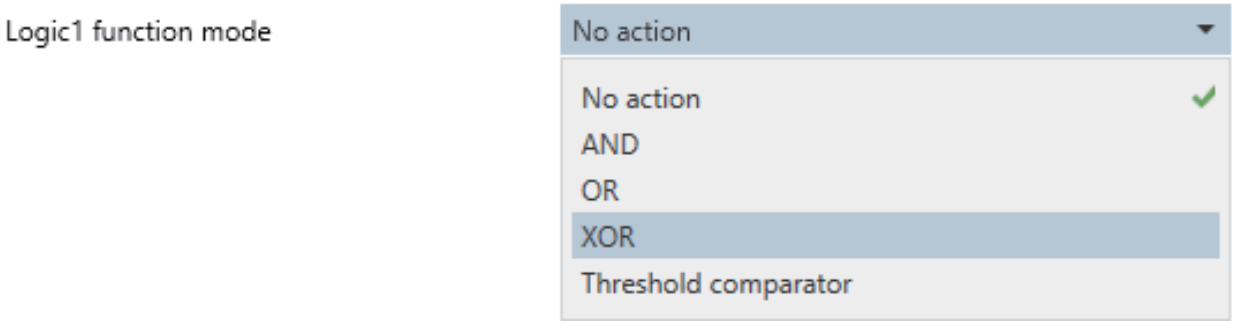
Parameter "relay1 output1 enable" Relay 1 enabled Option: disable off enable enabled

The following functions follow the same pattern.

"Logic function" function

Parameter "function enable" logical function enabled by default disable

If enabled, the following parameters are available



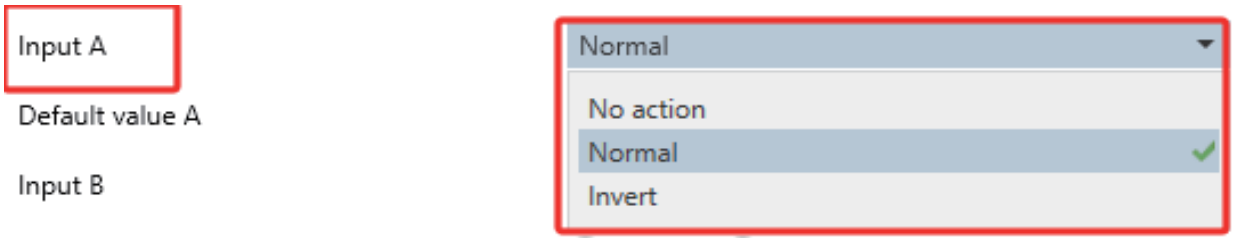
Parameter "Logic function mode" selects the logical function mode

Include options:

- **No action** no-operation
- **AND** logical AND
- **OR** logic OR
- **XOR** Logical XOR
- **Threshold comparator** Threshold comparison

"AND, OR, XOR" functions

Parameter "Input x"



Include options:

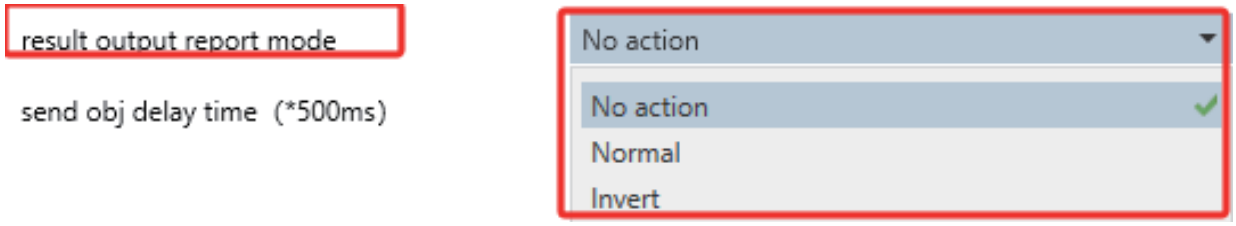
- **No action** no-operation
- **Normal** normal
- **Invert** Take the opposite

Parameter "Default Input x", select value 0 and 1

Parameter "result output", result output mode

- **"Receiving a new obj"** Output after receiving a new object
- **"Every change of output object"** Output is generated after the output object changes

Parameter "result output report mode", the result output and reporting method

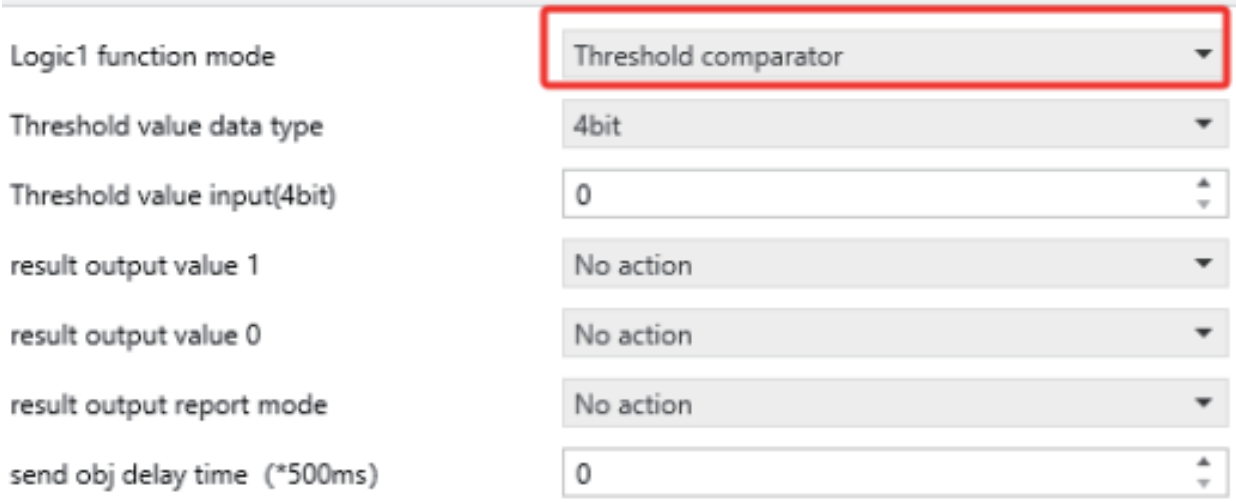


Include options:

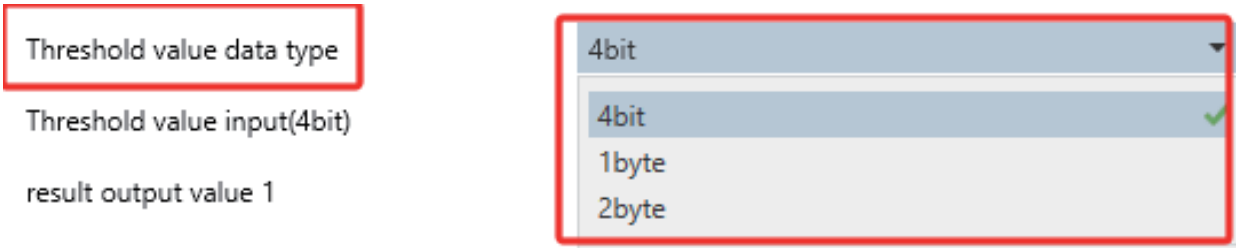
- **No action** no-operation
- **Normal** normal
- **Invert** Take the opposite

Parameter "send obj delay time (*500ms)" sets the delay sending value time

"Threshold comparator" function

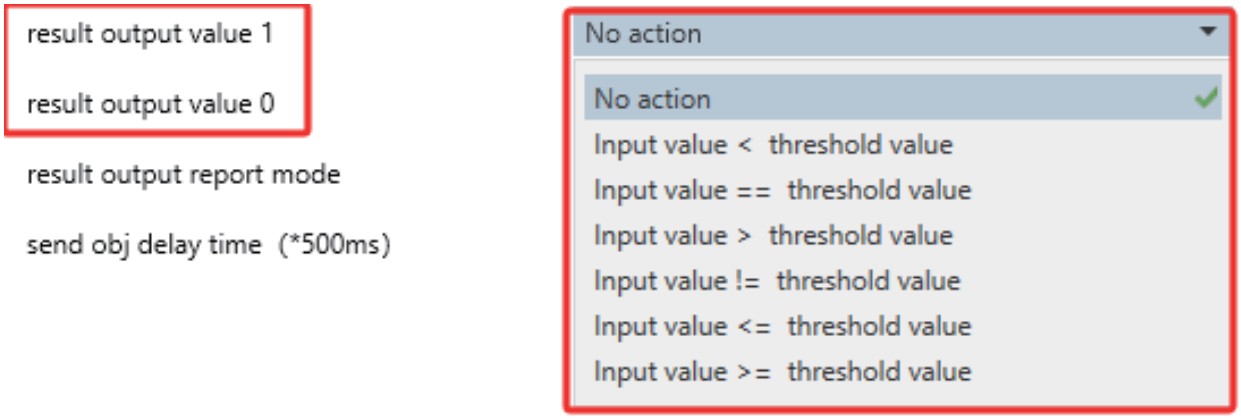


Parameter "Threshold value data type" sets the threshold data type



Parameter "Threshold value input" sets the input threshold (0-15)

Parameter "result output value x" sets the output value mode



Include options:

- **Input value < threshold value**
  Output when the input value is less than the threshold
- **Input value == threshold value**
  Output when the input value is equal to the threshold
- **Input value > threshold value**
  Output when the input value is greater than the threshold
- **Input value != threshold value**
  Output when the input value is not equal to the threshold
- **Input value <= threshold value**
  Output when the input value is less than or equal to the threshold
- **Input value >= threshold value**
  Output when the input value is greater than or equal to the threshold

6. Description of communication objects

The communication object is the medium for devices to communicate with other devices on the bus. That is, only the communication object can communicate with the bus. The communication object of each key on the panel is the same. The following is a detailed introduction to the function of each communication object with the first key as an example.

6.1 "Disable function" communication object

Note: In the following table, "C" in the column of property 1 represents that the communication function of the communication object is enabled, "W" represents that the communication object can rewrite the values of other devices, "R" represents that the values of the communication object can be read by other devices, and "T" represents that the communication object has

For transmission, "U" means that the value of the communication object can be rewritten by the read response of other objects.

Figure 6.1 "Disable function" communication object

Number	Function	Name of the communication recipient	Type	Attribute
182,10,20,30,40,50, 60,70	Function enable	KEY1-8,disable	884	C,W,T
The communication object is used to disable the key function. When "1" is received, the key function will be disabled; when "0" is received, the key function will be enabled. The key function is enabled by default when power is on.				

Table 1 "Disable function" Communication object table

6.2 "Switching" communication object

This function is a switch function, which can control the on and off of the light

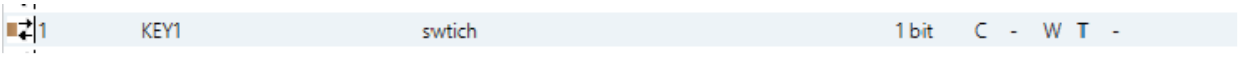


Figure 6.2 "Switching" communication object

Number	Function	Name of the communication recipient	Type	Attribute
1,11,21,31,41,51,61,71	Switching	Button1-8, switching	1bit	C,W,T
After the key is triggered, the communication object sends the message "1" to open the switch and sends the message "0" to close the switch.				

Table 2 "Switching" Communication object table

6.3 "Dimming" communication object

This function is the dimming function, which can be adjusted by pressing the button for a long time

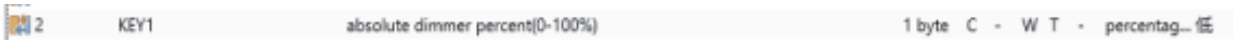


Figure 6.3 "Dimming" communication object

Number	Function	Name of the communication recipient	Type	Attribute
2,12,22,32,42,52, 62,72	Dimmer	KEY1-8, absolute dimmer percent(0-100%)	1byte	C,W,T
The communication object is visible when the dimming function is selected relative to the dimming, and is used for short press switch operation.				

Table 3 "Dimming" Communication object table

6.4 "shutter control" communication object

This function is for the stop and start of the curtain, forward and reverse

Figure 6.4 "Blind" communication object

Number	Function	Name of the communication recipient	Type	Attribute
3,13,23,33,43,53, 63,73	Move	KEY1-8,short press curtain move	1bit	C,W,T
Used to control the opening and closing of the curtain. When the communication object sends a message of "1", it moves down; when it sends a message of "0", it moves up.				
100,101,102,103, 104,105,106,107	STOP	KEY1-8,STOP	1bit	C,W,T
Used to control the stop of the curtain and to send the stop object.				
80,81,82,83,84,85, 86,87	Move	KEY1-8,long press curtain move	1bit	C,W,T
Used to control the opening and closing of the curtain. When the communication object sends a message of "1", it moves down; when it sends a message of "0", it moves up.				

Table 4 "Blind" communication object table

6.5 "Value send" communication object

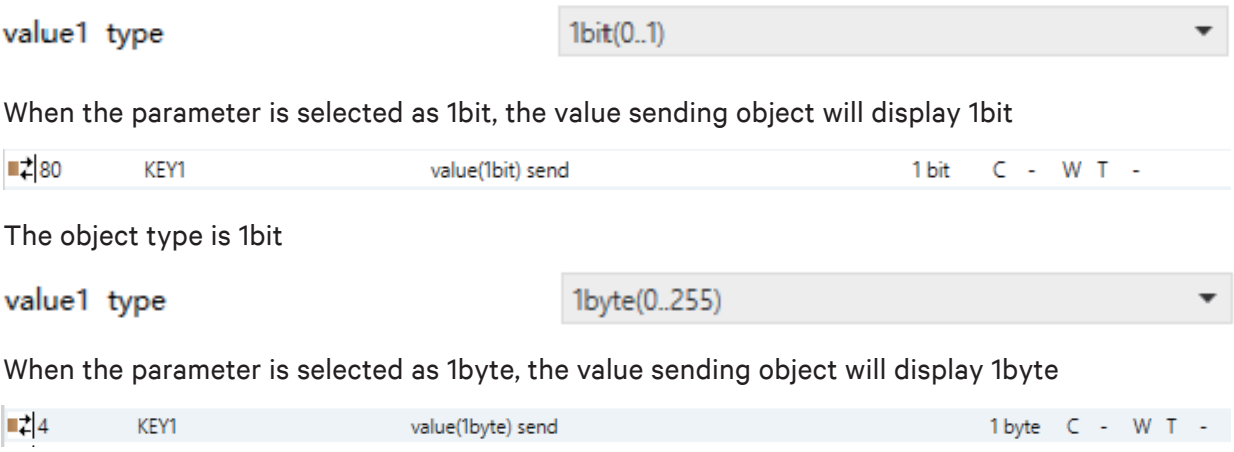


Figure 6.8 "value (1bit) send" communication object

Number	Function	Name of the communication recipient	Type	Attribute
80,81,82,83,84,85, 86,87	Value send	KEY1-8, value(1bit) send	1bit	C,W,T
The communication object is used for key press, release and long press, and 1bit value is sent.				
4,14,24,34,44,54, 64,74	Value send	KEY1-8, value(1byte) send	1byte	C,W,T
The communication object is used for key press, release and long press, and 1byte value is sent.				
8,18,28,38,48,58, 68,78	Value send	KEY1-8, value(2byte)send	2byte	C,W,T
The communication object is used for button press, release and long press, and 2byte values are sent.				

Table 5 "Value sender" Communication object table

6.6 "Scene" communication object

Figure 6.12 "Scene" communication object

Number	Function	Name of the communication recipient	Type	Attribute
5,15,25,35,45,55, 65,75	Short press sence recall	Scene callbacks	1byte	C,T
The communication object is used to control the scene. An 8bit instruction can be sent through the communication object to call or store the scene. The meaning of the 8bit instruction is explained in detail below. The parameter setting scene number is 1~64, and the actual scene message sent by the communication object "Number of light scene" corresponds to 0~63. For example, if the parameter setting scene number is 1, then the scene sent by the communication object "Number of light scene" is 0.				
100, 101, 102, 103,104, 105, 106, 107	Sence value output	Scene value output	1bit	C,W,T
7,17,27,37,47,57,67,77	Short press sence save	Scene preservation	1byte	C,T

Table 6 "Scene" communication object table

6.7 "Delay mode" communication object

Number	Function	Name of the communication recipient	Type	Attribute
90,91,92,93,94,95, 96,97	Delay mode value output	Delays the send value	Multiplexing	C,R,W,T

Table 7 "Delay mode" Communication object table

6.8 "Multiple operation" communication object

Number	Function	Name of the communication recipient	Type	Attribute
187-190(KEY1) 191-194 ..... 215-218(KEY8)	Multiple operation output	Multiplexed function output	1bit、1byte	C,W,T

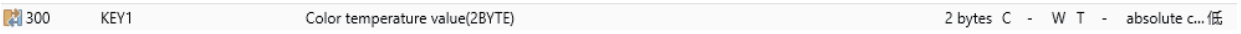
Table 8 "Multiple operation" Communication object table

6.9 "RGB Dimmer" communication object

Number	Function	Name of the communication recipient	Type	Attribute
300,301,302,303,304, 305,306,307	RGB mode (1*3/6Byte)	RGB aiming	3byte、6byte	C,T
187-218	RGB dimmer (3/4*1Byte)	RGB aiming	1byte	C,T

Table 9 "RGB mode" Communication object table

6.10 "Color temperature" communication object



Number	Function	Name of the communication recipient	Type	Attribute
300-307	Color temperature value (2BYTE)	Color temperature adjustment	2byte	C,W,T

Table 10 "Color temperature" communication object table

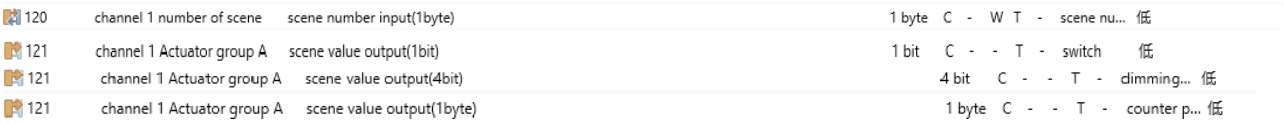
6.11 "LED function" communication object

Figure 6.9 "LED function" communication object

Number	Function	Name of the communication recipient	Type	Attribute
6,16,26,36,46,56, 66,76	Status	KEY1-8,led status	1bit	C,R,W,T
When the LED function is enabled, the communication object is enabled to receive status feedback to light up the LED indicator.				

Table 11 "LED function" Communication object table

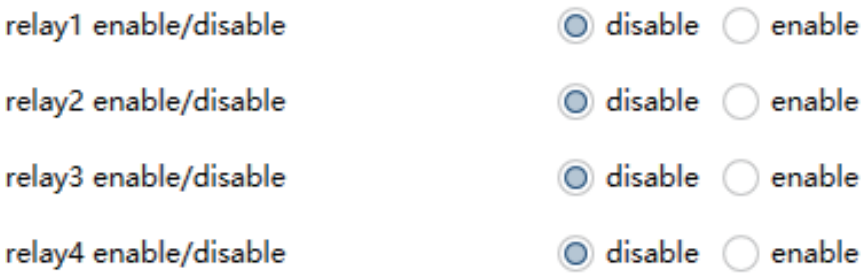
6.12 "channel x scene number" communication object



Number	Function	Name of the communication recipient	Type	Attribute
120,130,140,150		Scene number input	1byte	C,W,T
121-128(channel1 A-H) ..... 151-158(channel4 A-H)		Scene number output (1byte)	1bit、 4bit、 1byte	C,T

Table 12 "LED function" Communication object table

6.13 "relay" communication object



The parameters enable the relay function, which requires that the hardware supports the relay output.

This parameter is the value obtained by the relay to control the closing of the relay. When received as 1, it closes; when received as 0, it opens.

Figure 6.9 "relay function" communication object

Number	Function	Name of the communication recipient	Type	Attribute
110 111 112 113	Status	relay1-4 switchs	1bit	C,R,W,T,U
114 115 116 117	Status	relay1-4 status	1bit	C,R,W,T,U
When enabled, it is used to control the on and off of the relay				

Table 13 "relay function" communication object table