

Technical Manual

SATION Dimming Actuator



SATION-DM0101.0610

SATION-DM0102.0610

SATION-DM0103.0610

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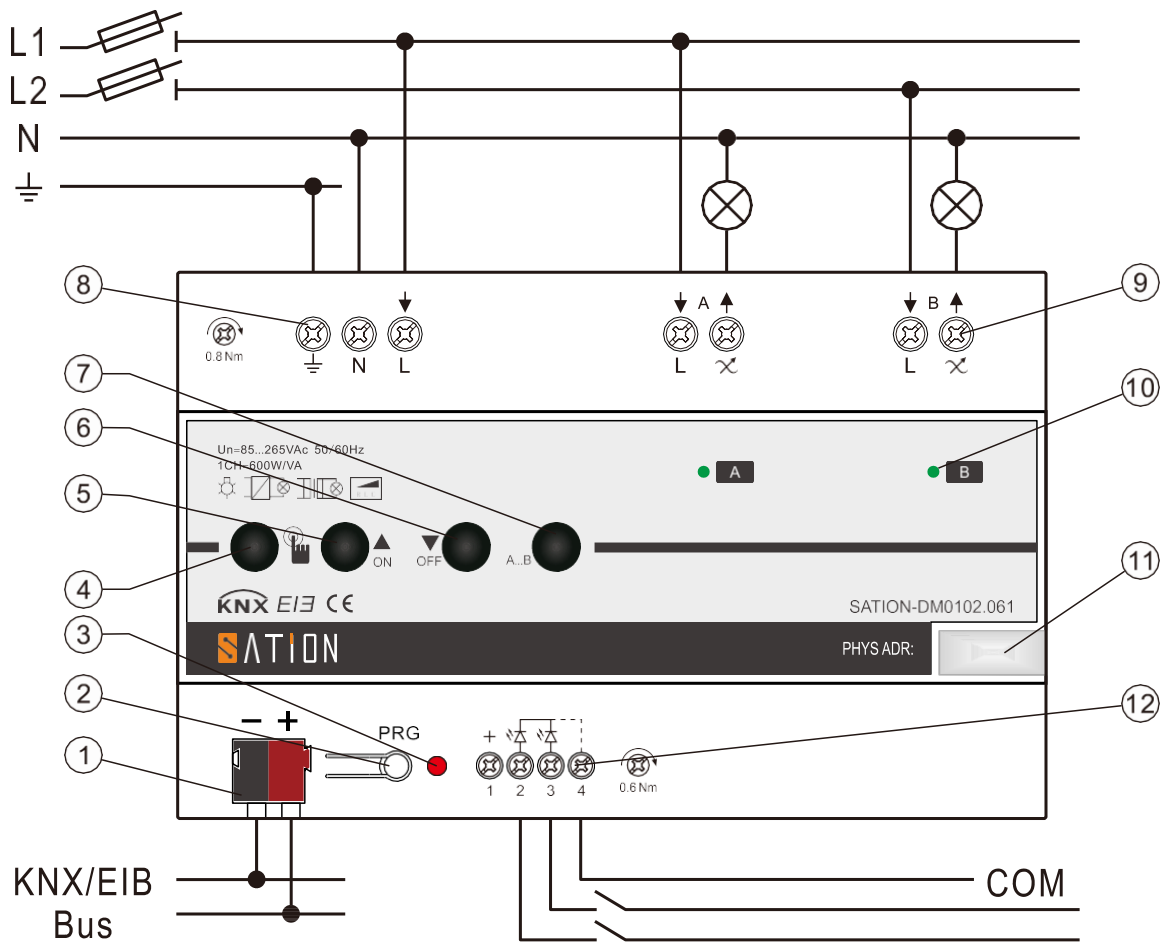
1 Overview

1.1 Device Overview

This manual refers to the following devices:

- SATION-DM0101.0610 SATION 1 Channel Dimming Actuator (600W)
- SATION-DM0102.0610 SATION 2 Channel Dimming Actuator (600W)
- SATION-DM0103.0610 SATION 3 Channel Dimming Actuator (600W)
- SATION-DM0101.2010 SATION 1 Channel Dimming Actuator (2000W)
- SATION-DM0101.3010 SATION 2 Channel Dimming Actuator (3000W)
- SATION-DM0103.1210 SATION 3 Channel Dimming Actuator (1200W)
- SATION-DM0116.0210 SATION 6 Channel Dimming Actuator (200W)

1.2 Diagram Drawing



picture 1: 2 channel wiring diagram

2.3 Use And Usage

The equipment can adjust the brightness of the light, which is suitable for all the AC driven tangent dimming lamps. According to the type of load (resistance, sensibility, capacity), choose the appropriate driving type. Three kinds of light control modes:

Switch mode (direct on / off), relative dimming mode (adding and subtracting dimming according to the current brightness), absolute dimming mode (dimming by percentage).

2.4 Structure Description

Each product includes a programming key and a programming indicator light. For 1-channel equipment, there are two manual dimming keys. For 2, 3 and 6-channel equipment, there are four manual dimming keys.



picture 2:structure description

2.5 LED Indication And Manual Operation

- The single channel device includes two manual buttons, two status indicators, one green LED and one red LED. Multichannel device, including four manual keys, green LED and red LED corresponding to the number of channels.
- For manual operation of single channel equipment, two buttons, one for on and one for off. When any button is pressed, the equipment will enter into manual mode and will no longer be controlled by external command. After pressing a button for more than 2S, the equipment will send an absolute dimming command, and the light brightness will change slowly. The dimming time is also affected by time parameters. Release the button, A stop command will be sent, and the dimming process will be stopped; if the key time is less than 2S, 100% dimming or dimming command will be executed, and the speed will be affected by the dimming speed parameter setting. When the system detects that there is no key action for more than 3S, it exits the manual mode. At this time, the device can accept the external control command.
- The manual operation of multi-channel equipment is different from that of single channel equipment. The difference is that multi-channel equipment has four buttons, one for manual mode, one for channel selection, and two for dimming. When the manual button is pressed, the equipment will enter the manual mode. At this time, it will no longer accept external commands. If the manual button is pressed again, it will exit the manual mode; Only when the device is in the manual mode, the other three keys are effective. After the device activates the manual mode, each time you press the channel selection key, one channel will be selected for manual operation, and its corresponding green LED will flash by a time ratio of 1:2. When you press the lightening button, the green LED will press 2:1 When switching to the next channel, if the previous channel is in the open state, the green LED will change from the flashing state of 2:1 to the normally on state. If the previous channel is in the off state, the green LED will change from the flashing state of 1:2 to the normally off state. The change of the green LED state of each channel follows the above rules. When the manual mode is exited, the LED will become normally on / off to indicate whether the current channel is on / off.

The following describes the green LED status:

Green LED Status	Channel status
Not Bright	Channel is in auto mode and is closed
Normal Bright	The channel is in auto mode and is turned on
1:2 Twinkle	The channel is in manual mode and is closed
2:1 Twinkle	The channel is in manual mode and is turned on

Form 1: LED status

The red LED corresponding to each channel is used to indicate the error status. When the channel is over power or over temperature, the red LED is always on, indicating that the current channel is in error, which must be handled:

1. When the power is over, the red LED will be on and the channel will be closed; until the channel is normal, the red LED will be off.
2. In case of overtemperature, the channel is first dimmed to 75%. If it is still over power, it will be dimmed to 50%. If it is still over power, the channel will be closed until the channel is normal, and the red LED will be off.

2.6 Function

A device can activate up to 6 channels, each channel has the same parameter options, and each channel function can be flexibly configured as required.

2.6.1 Function Overview

Dimming Functions	Load type	<ul style="list-style-type: none"> ● omic/capac. load / electronic transform.(trailing edge) ● inductive loads / conventional transform.(leading edge) ● ESL/LED without transformer(leading edge) ● ESL/LED with electronic transform.(trailing edge) ● ESL without transform.(leading edge)100% start
	Characteristic curve	<ul style="list-style-type: none"> ● Linear(bulb, LED, halogen lamp) ● Quadrate (esl, fluorescent lamp) ● Half logarithmically(optional) ● Logarithmically(optional)
	Time functions	<ul style="list-style-type: none"> ● Staircase lights ● on delay ● off delay
	Turn-on behavior	<ul style="list-style-type: none"> ● Absolute brightness level ● Last value(memory-function)
	Absolute values	<ul style="list-style-type: none"> ● Minimum value ● Maximum value
	Dimming behavior	<ul style="list-style-type: none"> ● Dimming speed ● Start up speed ● Switch off speed
	Alarm functions	<ul style="list-style-type: none"> ● Temperature ● Electric load alarm
	Central functions	<ul style="list-style-type: none"> ● Central switching ● Central dimming
	Scene functions	For every channel activatable/deactivatable
	Automatic functions	For every channel activatable/deactivatable
Additional Functions	Blocking objects	<ul style="list-style-type: none"> ● 2 blocking objects available ● Behavior for blocking and unblocking independent
	Behaviour after power off/after reset	<ul style="list-style-type: none"> ● No reaction ● Off/on ● Absolute value ● Last value

form 2: Function overview

3 Communication object

3.1 Objects Corresponding To The Channel

Communication between devices depends on group objects, which are associated by group address.

A dimmer actuator contains three global objects and objects corresponding to each channel. When a channel is activated, parameter configuration can be carried out. Some objects appear in the object window according to the configuration of parameters. Each channel occupies 15 object positions. Therefore, the object coding range of channel a is 0-14, the object coding range of channel B is 15-29, the object coding range of channel C is 30-44, and the three global object coding ranges are 60, 61, 62. 90, 91, 92 for 6 channels.

The following figure is the object diagram of channel A:

Number	Name	Object Function	Description	Group...	Length	C	R	W	T	U	Data Type	Priority
0	Channel A	Switch			1 bit	C	-	W	-	-	1 bit DPT_Switch	Low
2	Channel A	Dim relatively			4 bit	C	-	W	-	-	3 bit controlled DPT_Control...	Low
3	Channel A	Dim absolutely			1 Byte	C	-	W	-	-	8 bit unsigned value DPT_Scali...	Low
4	Channel A	State On/Off			1 bit	C	R	-	T	-		Low
5	Channel A	State dim value			1 Byte	C	R	-	T	-	8 bit unsigned value DPT_Scali...	Low
6	Channel A	Block I			1 bit	C	-	W	-	-	1 bit DPT_Enable	Low
7	Channel A	Block II			1 bit	C	-	W	-	-	1 bit DPT_Enable	Low
8	Channel A	Scene			1 Byte	C	-	W	-	-		Low
9	Channel A	Electrical load alarm			1 bit	C	R	-	T	-		Low
10	Channel A	Overtemperature alarm			1 bit	C	R	-	T	-		Low
11	Channel A	Automatic 1			1 bit	C	-	W	-	-	1 bit DPT_Switch	Low
12	Channel A	Automatic 2			1 bit	C	-	W	-	-	1 bit DPT_Switch	Low
13	Channel A	Automatic 3			1 bit	C	-	W	-	-	1 bit DPT_Switch	Low
14	Channel A	Automatic 4			1 bit	C	-	W	-	-	1 bit DPT_Switch	Low
60	Central	Switch			1 bit	C	-	W	-	-	1 bit DPT_Switch	Low

picture 3: Channel object configuration

The global object acts on all channels. When the channel opens the global function, it will be controlled by the global object. This means that when multiple channels open the global function, a global object command will control multiple channels at the same time. This is very helpful for the general control and can reduce the bus load.

The following figure shows the global object description:

60	Central	Switch			1 bit	C	-	W	-	-	switch	Low
61	Central	Dim absolutely			1 Byte	C	-	W	-	-	percentage (0..100%)	Low

Picture 4: Global object

3.2 Channel Object

If a group of channels is disabled, the corresponding channel object will not be displayed, and the corresponding parameters are also not configurable. The following table shows the objects corresponding to a channel:

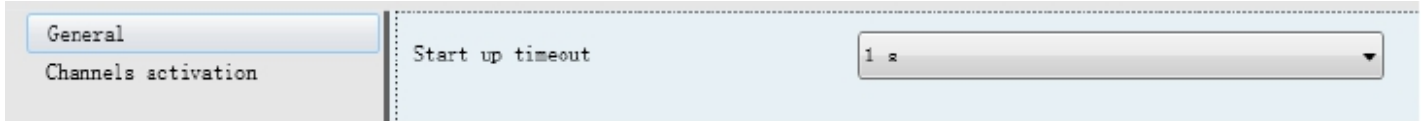
NO.	Functions	Usage	Length	Data point type	Read and write
0	Switch	Switch function	1 unit	DPT 1.001	write
1	Staircaselight	Delay off function	1 unit	DPT 1.001	write
2	Dim relatively	Relative dimming	4 unit	DPT 3.007	write
3	Dim absolutely	Absolute dimming	1 byte	DPT 5.001	write
4	State On/Off	Channel state	1 unit	DPT 1.001	read
5	State dim value	Dimming value	1 byte	DPT 5.005	read
6	Block i	Block 1	1 unit	DPT 1.001	write
7	Block ii	Block 2	1 unit	DPT 1.001	write
8	Scene	Scene	1 byte	DPT 18.001	write
9	Electric load alarm	Over current alarm	1 unit	DPT 3.007	Read
10	Over temperature alarm	Over temperature alarm	1 unit	DPT 1.001	read
11	Automatic 1	Auto function 1	1 unit	DPT 1.001	write
12	Automatic 2	Auto function 2	1 unit	DPT 1.001	write
13	Automatic 3	Auto function 3	1 unit	DPT 1.001	write
14	Automatic 4	Auto function 4	1 unit	DPT 1.001	write
+15	Next channel				
60/90	Switch	Global on / off	1 unit	DPT 1.001	write
61/91	Dim absolutely	Global dimming	1 byte	DPT 5.001	write

form 3: Single channel object

4 ETS Parameter

4.1 General Settings

A start-up time setting for setting the start-up delay of the device. General parameter diagram:

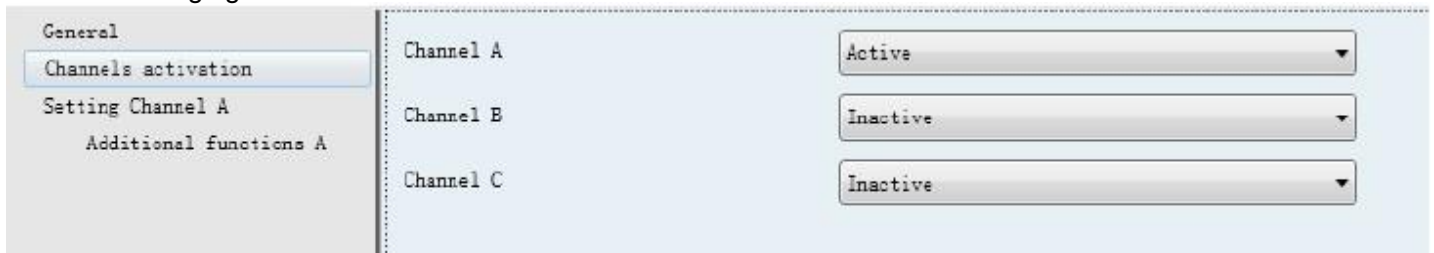


picture 5 :general settings

4.2 Channel

Each channel has the same parameter options, which can be configured according to different needs, so that the channel can complete specific functions .

The following figure shows the channel mode selection:



picture 4: channel mode

Function Description:

Parameter name	Range [default value]	Remarks
Channel A	<ul style="list-style-type: none"> ● inactive ● active 	Inactive means forbidden channel, active means enabled channel, and then channel parameters can be configured.

picture 5: channel mode

If a channel is not used, select inactive. When active is selected, channel related parameters will appear for configuration. After some parameters are selected, more other parameters and group objects can appear. All parameters can be configured as required.

4.3 Function

There are three working modes for a channel: switching (on / off), dim relative (relative dimming), dim absolute (absolute dimming). When the channel is activated, all three objects will appear, which means that the channel can switch the working mode at any time.

4.3.1 Switching

A channel can work in on / off mode, that is to say, the channel only needs 0 / 1 signal for on / off operation. Unlike ordinary on / off operation, the on / off time can still be set, and the state on / off object is used to feedback the channel state. When the channel is controlled by an external single key, the object needs to be connected to the toggle object of the external single key to ensure the state rotation.

The following is the object description:

NO.	Name	Length	Usage
0	Switch	1bit	A value of 1 opens the channel and a value of 0 closes the channel
4	State On/Off	1bit	Indicates the current channel status (on / off)

Picture 6: switching objects

4.3.2 Dim relatively

The relative dimming is carried out continuously on the basis of the current brightness. The dimming step is 100%, that is to say, the dimming operation is from 0% to 100% or from 100% to 0%. The dimming process can be stopped at any time and the dimming speed can be set.

Object description:

NO.	Name	Length	Usage
2	Dim relatively	4 unit	Turn on / off continuously

picture 7:Relative dimming object

4.3.3 Dim absolutely

Different from the relative dimming, the absolute dimming does not consider the current brightness value, but adjusts the light according to a percentage, dividing the brightness into 100 equal parts, and a percentage value corresponds to a brightness setting.

object description:

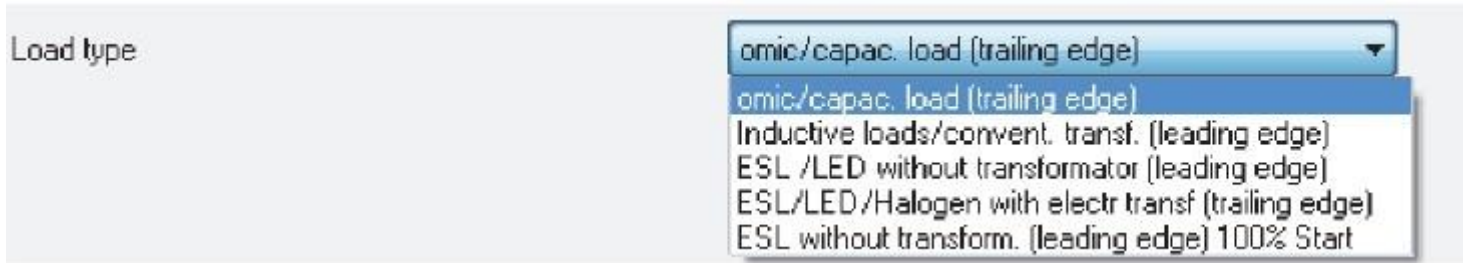
NO.	Name	Length	Usage
3	Dim absolutely	1 bit	Adjust the brightness to a specified value.

picture 8: dimming absolutely

5 Parameter

5.1. Load type

The proper load type can ensure the normal operation of the equipment. Two dimming modes, trailing edge and leading edge, are very important.



Picture 8 : load type

The following describes the parameters:

Name	option [default]	Reamrks
Load type	omic/capacitive load(trailing edge) inductive loads/conventional transf.(leading edge) ESL/LED without transformer(leading edge) ESL/LED/Halogen with electronic transf.(trailing edge) ESL without transf(leading edge),100%Start.	Resistive / capacitive load (delay dimming) Inductive load (forward delay dimming) Energy saving lamp without transformer / LED lamp (forward delay dimming) Energy saving lamp / LED lamp / halogen lamp with electronic transformer (delay dimming) Energy saving lamp without transformer (forward delay dimming)

picture 9: load type

5.2. Time functions

The dimming process can be set with two times: one is on / off time, which is used for switching / dim absolutely two ways, the other is dimming time, which is used for dim relativity. In addition, the channel can also be configured to work in staircase mode, so that it will be automatically closed after the channel is opened for a period of time.

5.2.1. On/Off delay

The on / off object is used for the delay before the channel is turned on / off.

Delay parameter:

The image shows a user interface for setting delay parameters. It consists of two rows. The first row is labeled 'On delay' and has a dropdown menu currently showing '10 s'. The second row is labeled 'Off delay' and has a dropdown menu currently showing 'no delay'. Both dropdown menus have a small downward-pointing triangle on the right side.

Picture 10: on/off delay

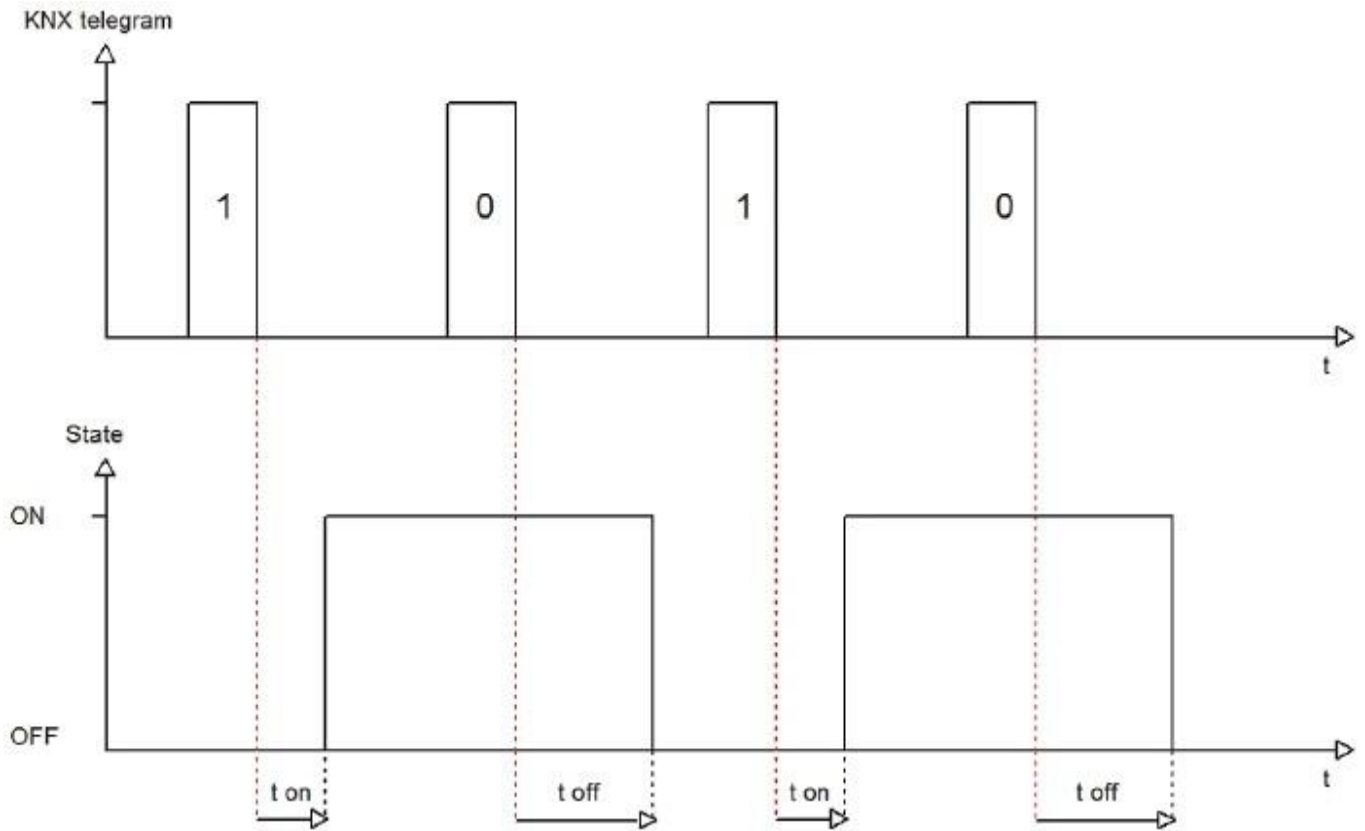
Parameter description:

Name	option [default]	Usage
On/Off delay	no delay, 1s, 5s, 10s, 15s, 20s, 30s, 45s, 60s, 2min, 3min, 4min, 6min, 7min, 8min, 9min, 10min, 15min, 20min, 30min, 45min, 60min	Set an on / off delay value

picture 11: delay parameter

The parameter on delay is used for open operation and off delay is used for close operation.

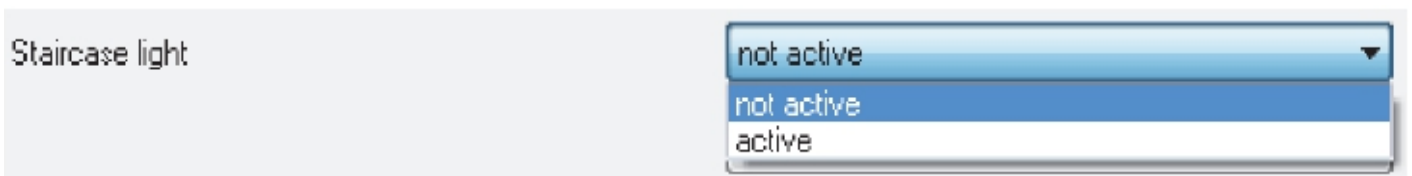
The figure shows the delay Description:



picture 12: Delay parameter diagram

6. Staircase light

Corridor lighting mode can be configured to automatically close the channel when the delay time is used up. To use this function, you must select the parameter to activate.



Picture13: Corridor activation parameters

After the corridor function is activated, a new parameter selection menu will appear. Please set the corridor function in detail.

picture14: Corridor parameters

Parameter Description:

Name	Option [Default]	Remarks
Duration staircase	0-30000s [90s]	After the channel is open for a duration, it will automatically close.
Prewarning	active not active	Activate the alert function. If the function is not turned on, the channel will not give an alert instruction before it is turned off.
Prewarning Duration in[s]	0-30000s [0s]	Warning time, indicating that the channel is about to close.
Value of dimming down	1-100% [20%]	Warning behavior, you can set the brightness to a certain proportion to indicate that the channel is about to close.
Extension	active not active	Extension option: after the function is activated, when the channel is in the open state and the open command is received, the opening duration of the channel will be counted again, so that the channel can be in the uninterrupted open state; If this parameter is not selected, other open commands received during channel opening are ignored, that is, external commands cannot be received again until the channel is automatically closed.
Deactivation	active not active	This option is used to activate the external close function. When this function is selected, if a close command is received, the channel will be closed. Otherwise, if this function is not activated, the channel will ignore all the close commands received, that is, the channel can only be closed automatically, but not through the external command.

picture 15: Corridor parameters

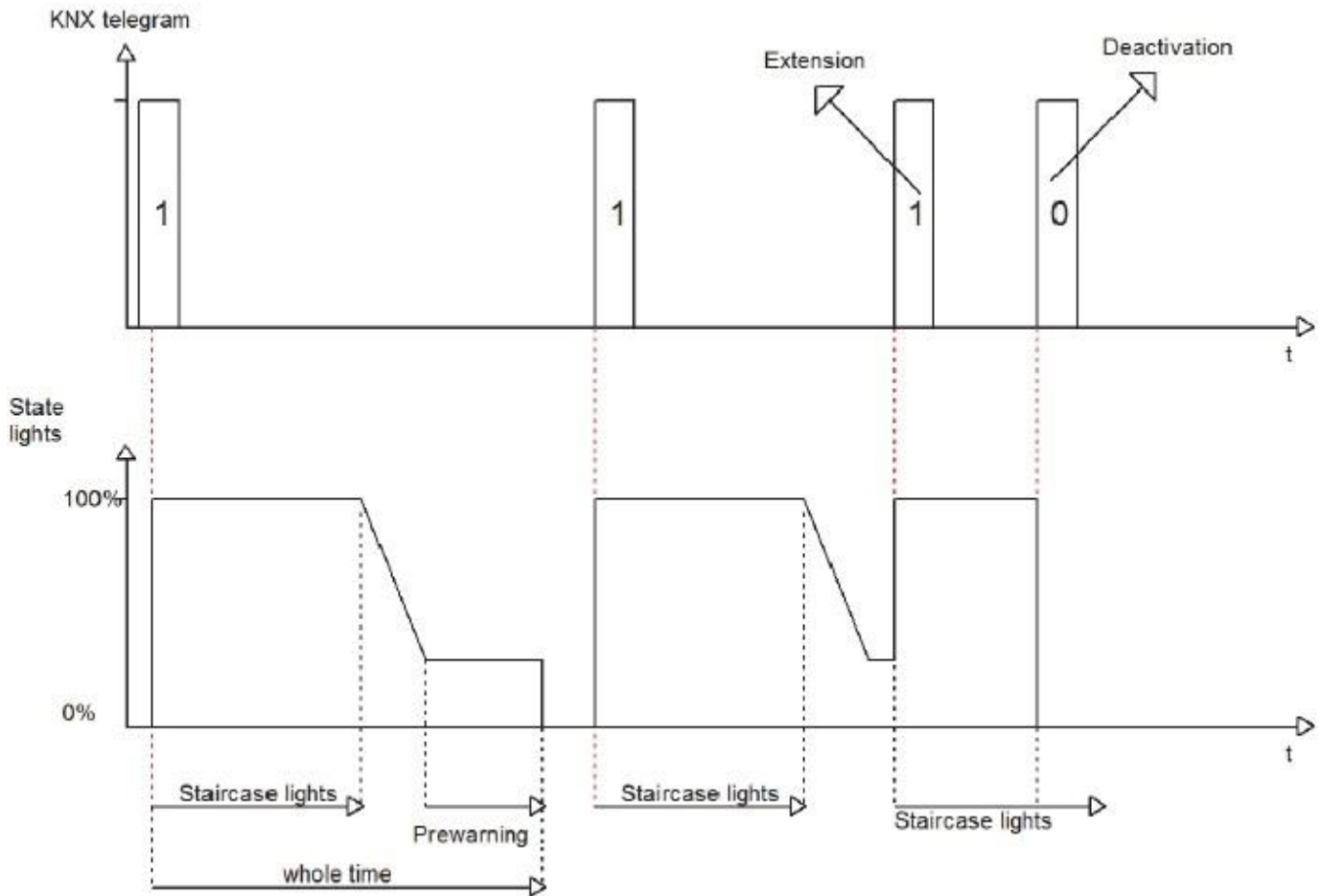
When the corridor function is activated, a stair case light object will replace the original switch object:

NO.	Name	Length	Usage
1	Staircaselight	1 Unit	For receiving corridor function command

Picture16: Corridor object

The corridor function does not respond to the dim relative and dim absolute commands. Therefore, the channel will not automatically close after processing the dimming commands received by these two objects, but needs to receive external commands to close.

The following figure is the schematic diagram of corridor function. The channel warning brightness is set to 20%, and the extension and deactivation functions are activated.



Picture 17: Early warning

7. Absolute values

The dimming area can be limited to a certain range.

7.1.Starting behavior

This parameter is used to set the channel on / off behavior, which is valid for switch / dim absolute two objects:

picture18: Starting behavior

Parameter Description:

Name	Option [Default]	Remarks
On-value setting	Sub-function: value of start up 1-100% [100%]	This parameter sets the brightness value when the channel receives the open command of the switch object.
Last light value(Memory)		This parameter indicates that the last luminance value before the last channel close is used after the channel receives the open command of the switch object
Start up speed /Switch off speed	1s-240s [1s]	Set the dimming time for channel on / off. Valid for switch / dim absolute.

Picture18: Start behavior parameters

Although the parameter value for startup You can set the brightness value when the channel is opened, but this parameter is still limited by the dimming area. If the value set by this parameter is greater than the maximum value set by the dimming area, then the actual brightness value set after the channel is opened is the maximum value set by the dimming area. If the value set by this parameter is less than the minimum value set by the dimming area, then the actual brightness value set after the channel is opened is the minimum value of dimming area.

For the parameter last light value, it means that when the channel changes from off state to on state, the brightness value to be set is the value of the last open state, for example:
When the channel is dimmed to 60% brightness, and then it is closed, then when it is opened again, the channel brightness will be set to 60%, which is the brightness value when it was last opened.

All the above parameters are valid for the switch object, but the dim absolute object is only affected by the parameter start up speed / switch off speed. The object dim relativity is not affected by these parameters.

8. Dimming area

Set the dimming area with the parameters minimum light and maximum light. In this way, the brightness will only change within the specified range.

Minimum light

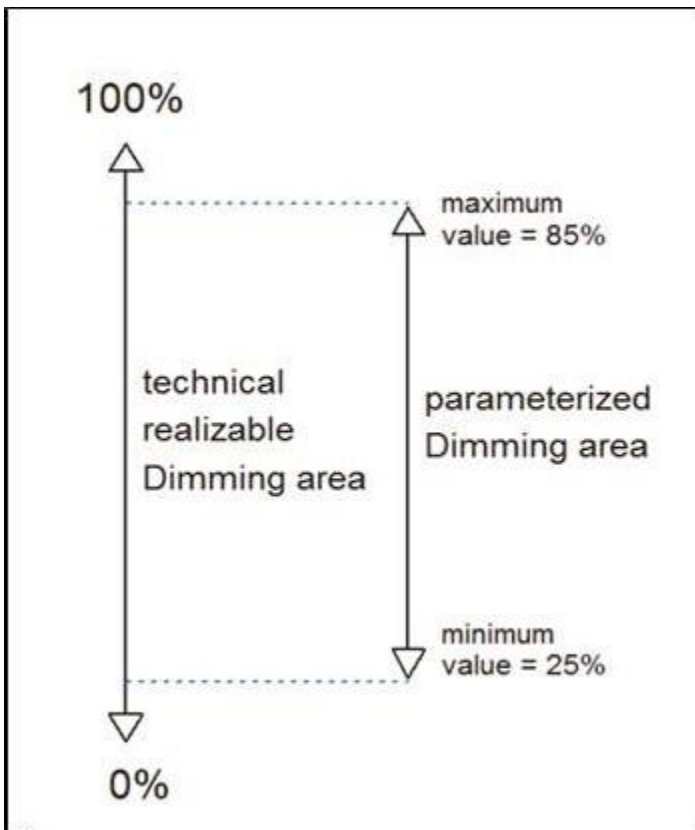
Maximum light

picture 19: dimming area

Parameter Description:

Name	Option [Default]	Remarks
Minimum light	1-100% [1%]	Minimum allowable brightness value
Maximum light	1-100% [100%]	Maximum allowed brightness value

Picture 20: Regional restriction



If you want to limit the brightness in a certain area, you can set the parameters minimum light and maximum light to achieve. Each channel can be set with different restriction areas to adapt to different lamps. When the limited area is set for the channel, the dimming brightness will only change within the limited area.

As shown in the figure on the left, when the maximum brightness is set to 85% and the minimum brightness is set to 25%, the channel brightness will not be 100% but 85% when an open command is received through the switch object, because it is limited by the maximum brightness parameter. When the brightness is reduced by relative dimming or absolute dimming objects, the minimum brightness will be 25%, not 1%, or other values. However, when the channel is closed by the switch object, the channel brightness will be 0%. Reducing the maximum brightness of the lamp can effectively improve the lamp life. Therefore, this parameter can be modified when the luminance requirement is not high.

8.1. specific dimming settings

You can set the dimming behavior, state feedback and so on, and select the appropriate parameters according to the actual situation.

The screenshot shows a user interface with two settings. The first is 'Dimming speed [s]' with a numeric input field containing the value '5' and up/down arrow buttons. The second is 'Send dimming value after change (min. 2%)' with a dropdown menu currently showing 'active'.

Picture 21: Specific parameters

8.2. Dimming speed

Through the setting of dimming speed, the speed of brightness change can be controlled to make the dimming more smooth.

Name	Range [Default]	Remarks
Dimming speed[s]	1-120s [5s]	Set the time when the brightness is adjusted from 0% to 100%

Picture 22: dimming speed

Each channel can set different dimming time separately. The longer the time, the higher the dimming accuracy, because almost every scale can be processed, on the contrary, the time is too short, multiple scales may be skipped. Generally, 5-8s is suitable. Note that this parameter only has an effect on relative dimming, and is not affected by this parameter for switch objects or absolute dimming objects.

8.2.1. Send dimming value after change

Dimming value feedback can display the current brightness in real time, activate parameters, and turn on the function.

Name	Range [Default]	Remarks
Send dimming value after change(min. 2%)	<ul style="list-style-type: none"> ● not active ● active 	When the dimming value changes by at least 2%, the actual dimming value is sent

Picture 23: dimmign value

After activating the send dimming value function, a state object reflecting the dimming value will appear. When the condition is satisfied (change at least 2%), the state object will send the actual dimming value. Dimming object size is 1 byte.

NO.	Name	Length	Usage
5	State dim value	1 byte	Send actual dimming value as a percentage

Picture24: Dimming value object

9. Alarm functions

Some alarm functions can be activated, such as: temperature alarm, overload alarm.

The image shows a user interface for configuring alarm functions. There are two rows of controls. The first row is for 'Overtemperature alarm' and has a dropdown menu currently showing 'not active'. The second row is for 'Electrical load alarm' and has a dropdown menu currently showing 'active'.

Picture 25: alarm

Alarm function can be used as an auxiliary function of background monitoring, which is convenient for better management and monitoring of equipment status.

9.1. Over temperature alarm

Name	Range [Default]	Remarks
Over temperature alarm	not active active	When the temperature is too high, the over temperature alarm will be triggered and the red LED corresponding to the channel will be on

Picture 26: over temperature alarm

When the over temperature alarm function is activated, a new communication object will appear to indicate the alarm status. The size of the communication object is 1 bit.

NO.	Name	Length	Usage
10	Over temperature alarm	1 unit	Send value 1 on alarm

Picture 27: Overheated object

In order to avoid equipment damage due to high temperature, each channel is equipped with temperature detection. When the temperature exceeds the internal threshold, the corresponding channel will generate an alarm, and the channel brightness will be reduced to 50%. After 30 seconds, if the temperature is still too high, the channel will be closed. After the temperature returns to normal, the brightness of the channel will not return to the previous brightness value, that is to say, the brightness of the channel is reduced to 50%, and after the temperature returns to normal, the brightness will remain at 50%. The dimming value must be changed by sending a new command. If the temperature returns to normal after the channel is closed, a new command is also needed to modify the dimming brightness.

9.2. Electric load alarm

Overload alarm includes two situations: excessive load power and short circuit. When an alarm is generated, like the temperature alarm, the red LED light of the corresponding channel will be on. If it is still overloaded after 30 seconds, the alarm will continue until the fault is handled.

Name	Range [Default]	Remarks
Electric load alarm	not active active	Overload alarm must be activated to be effective

Picture 28: Overload alarm

No.	Name	Lenth	Usage
9	Electric load alarm	1 unit	A 1 signal will be sent in case of alarm

Picture 29: Overload alarm object

10. Central objects

The main control function is to process multiple channels of the same device together. The advantage of this is that it does not need to send commands to each channel separately, which can save the operation amount and reduce the messages on the bus. Each channel can choose whether to join the master control operation. Only the channel with the master control function activated can be controlled by the master control object.



Picture 30: central parameter

Parameter description:

Name	Range [Default]	Remarks
Central objects	not active active	When active is selected, the channel will respond to the command of the main control object

Picture 31: central objects

There are two master objects: switch and dim absolutely. The switch object can control the opening and closing of channels that activate the main control function. The absolute dimming object controls the channel to a specified dimming value.

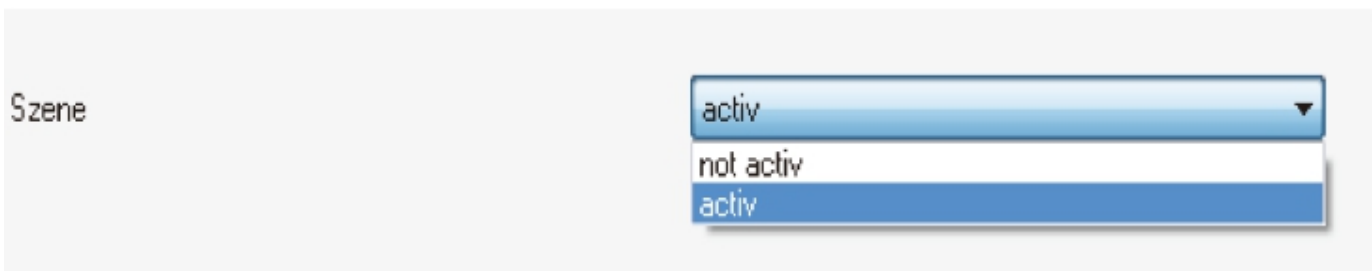
Although the main controller can control multiple channels to act together, the behavior of each channel is affected by its own parameters. For example, channel a limits the maximum dimming brightness to 90%, while channel B limits the maximum dimming value to 70%. When the master control object receives the opening command, the opening brightness of channel a will be 90%, and the opening brightness of channel B will be 70%.

No.	Name	Length	Usage
60	Switch	1 unit	Turn on / off all channels that activate the function
61	Dim absolutely	1 byte	Dimming all channels that have activated the function

Picture 32 : central objects

11. Scene function

When you want to achieve multiple functions (such as lighting, air conditioning, curtains) at the same time through one key, the simplest way is to use the scene function. In general, in order to turn on the lights, air conditioning and refrigeration, it needs at least three commands to open the curtains, that is to press at least three different buttons. It would be tedious to do so. Then, the benefits of the scene are reflected. It only needs one press to make each device act automatically to achieve a certain state. Each channel of each actuator type device can be configured with up to eight scenarios. After activating the scene function of the channel, the channel can respond to the scene command. The scene can also be configured with learning functions. After activating the learning function of the channel, when receiving the learning command through the scene object, the channel will save the current value to replace the previously configured value, which can flexibly modify the scene function of the channel.



Picture 33: scene function

No.	Name	Length	Usage
8	Scene	1 byte	Scene call object

Picture 34 : scene object

Scene call is realized by scene number. The range of scene number is 1-64, but the corresponding actual scene value is 0-63. That is to say, when the scene number is set to 1, the actual sending value of the object is 0, and when the scene number is 64, the actual value of the object is 63. This conversion is automatically converted by the internal program of the device. When configuring through ETS, you only need to select one of the 1-64 numbers as the scene number.

11.1.Submenu scene

One channel can be configured with 8 scenes, that is, one channel can realize up to 8 scene modes, which is enough for general applications.

The following figure is a screenshot of a scene configuration: scene a No. 44, dimming value 30%, scene B No. 41, dimming value 40%. Scene C is not activated and learning function is turned on

Scene Channel A

Save scene	enabled ▼
Scene Nr. A	44 ▼
Light value scene A	30% light ▼
Scene Nr. B	41 ▼
Light value scene B	40% light ▼
Scene Nr. C	inactive ▼
Light value scene C	Off ▼

Picture 35 : Scene menu

Parameter Description:

Name	Range [Default]	Remarks
Save scene	<ul style="list-style-type: none"> ● disabled ● enabled 	Activate the learning function. If the function is not activated, the received learning command will be ignored
Scene Nr.A-[H]	1-64,inactive [inactive]	Scenario number, used to determine which of the eight scenarios to call
Light value scene A-[H]	Off,10%,20%,30%,40%,50%,60%,70%,80%,90%,100% [off]	Behavior of scenario execution

Picture 36: scene parameter

The execution of the scene is also affected by the channel parameters, and the execution of the scene is limited by the same parameters as the absolute dimming. A channel can configure up to 8 scene patterns, so the scene number is used to distinguish which scene mode is currently invoked. The number of different scene mode configurations of the same channel should be unique.

Scene calling function and learning function use the same scene object, but the values are different, as shown in the following table:

Scene number	Call		Learn	
	Hexadecimal	Decimal system	Hexadecimal	Decimal system
1	0x00	0	0x80	128
2	0x01	1	0x81	129
3	0x02	2	0x82	130
4	0x03	3	0x83	131
5	0x04	4	0x84	132
6	0x05	5	0x85	133
7	0x06	6	0x86	134
8	0x07	7	0x87	135
9	0x08	8	0x88	136
10	0x09	9	0x89	137
11	0x0A	10	0x8A	138
12	0x0B	11	0x8B	139
13	0x0C	12	0x8C	140
14	0x0D	13	0x8D	141
15	0x0E	14	0x8E	142
16	0x0F	15	0x8F	143
17	0x10	16	0x90	144
18	0x11	17	0x91	145
19	0x12	18	0x92	146
20	0x13	19	0x93	147
21	0x14	20	0x94	148
22	0x15	21	0x95	149
23	0x16	22	0x96	150
24	0x17	23	0x97	151
25	0x18	24	0x98	152
26	0x19	25	0x99	153
27	0x1A	26	0x9A	154
28	0x1B	27	0x9B	155
29	0x1C	28	0x9C	156
30	0x1D	29	0x9D	157
31	0x1E	30	0x9E	158
32	0x1F	31	0x9F	159

Picture 37 : Scene calling and saving

12. Automatic Function

Each channel can activate 4 automatic function objects, and each object can set a dimming value. Different from the scene function, the scene object is 1 byte in size, while the automatic function object is 1 bit in size.

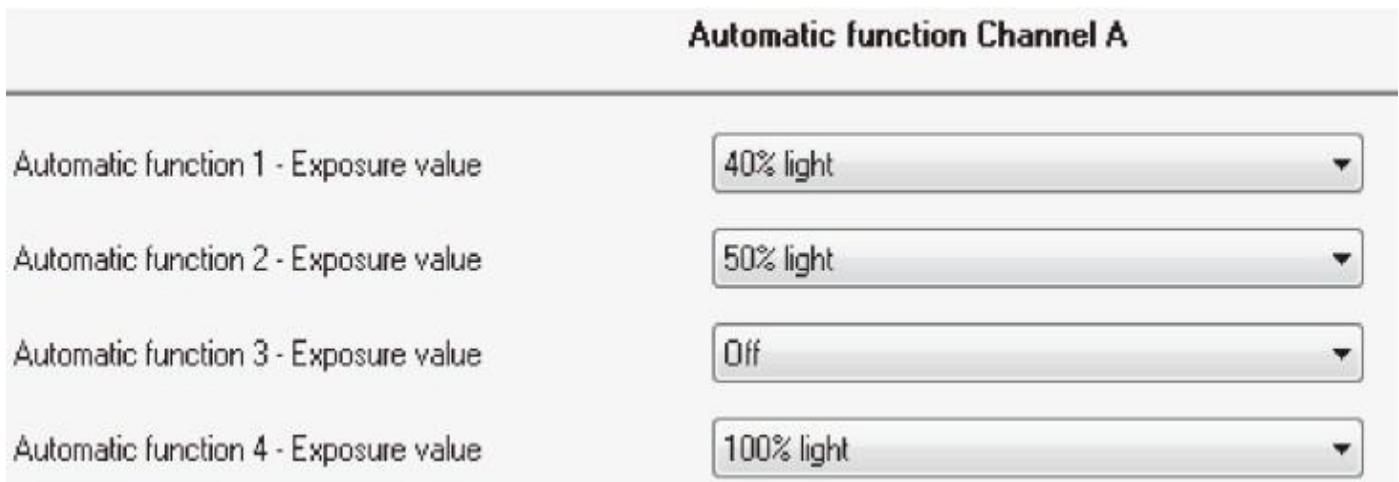


Picture 38: automatic function

NO.	Name	Length	Usage
11	Automatic 1	1 unit	Call auto function object 1
12	Automatic 2	1 unit	Call auto function object 2
13	Automatic 3	1 unit	Call auto function object 3
14	Automatic 4	1 unit	Call auto function object 4

Picture 39 : Automatic function object

The following figure is the screenshot of automatic object configuration: object 1 dimming value is 40%, object 2 is 0%, object 3 is off, and object 4 is 100%



Picture 40: Automatic function parameters

Name	Range [Default]	Remarks
Automatic function1-[4]-Exposure value	Off,10%,20%,30%,40%,50%,60%,70%,80%,90%,100%	Define the output value of the automatic object

Picture 41 : Auto object value

13. Additional Functions

Each channel also has some additional functions, such as blocking function, power up / down behavior, etc. Some special uses can be realized through additional functions.

The following figure is a screenshot of the additional function configuration of channel A: when blocking object 1 is blocked, the brightness of the channel is set to 100%, and when it is not blocked, it is still 100%. When the blocking object 2 is blocked, the brightness remains unchanged; when it is not blocked, the brightness is set to 100%. When the bus is powered off, set the brightness to 35%. When the bus is powered on, the brightness is restored to the value when the power is off

Additional functions A	
Behavior at Block I = value 1	Light value
Light value	100% light
Behavior at Block I = value 0	Light value
Light value	100% light
Behavior at Block II = value 1	no change
Behavior at Block II = value 0	Light value
Light value	100% light
Behavior after power off	35%
Behavior after reset	Last value

Picture 42 :additional function

13.1. Blocking Objects

Name	Range [Default]	Remarks
Behavior at Block 1 = value 1	Off,nochange,Lightvalue(10%,20%,30%,40%,50%,60%,70%,80%,90%,100%) [no change]	Defines dimming behavior when blocked by the object
Behavior at Block 1 = value 0	Off,nochange,Lightvalue(10%,20%,30%,40%,50%,60%,70%,80%,90%,100%) [no change]	Defines dimming behavior when returning to normal through this object
Behavior at Block 2 = value 1	Off,nochange,Lightvalue(10%,20%,30%,40%,50%,60%,70%,80%,90%,100%) [no change]	Defines dimming behavior when blocked by the object
Behavior at Block 2 = value 0	Off,nochange,Lightvalue(10%,20%,30%,40%,50%,60%,70%,80%,90%,100%) [no change]	Defines dimming behavior when returning to normal through this object

Picture 43 : Blocking parameter

When the channel is blocked, the channel no longer responds to normal object commands. Each channel has two blocking objects, object 1 and object 2. When the channel is blocked, you can configure what operations should be performed, such as turning to a certain brightness value, or turning off the channel.

Blocking object 1 takes precedence over blocking object 2. When the blocking object 2 receives the blocking command, the channel performs the operation corresponding to the blocking object 2, and then the blocking object 1 also receives the blocking command. Then the channel will perform the operation corresponding to the object 1. At this time, if the blocking object 2 receives the 0 value (greying) command, the command will not be executed, because the blocking object 1 is still blocked, only when the blocking object 1 The operation on object 2 will not be performed until the 0 value (recover) command is received. That is, as long as block object 1 is blocked, all operations of block object 2 will not be performed unless block object 1 is in a non blocking state.

NO.	Name	length	Usage
6	Block 1	1 unit	Activate / lazy block object 1
7	Block 2	1 unit	Activate / lazy block object 2

Picture 44 : Blocking object

13.2 Behavior after power off/after reset

When the bus is powered on or powered off, the behavior of the channel can be configured to better control the state of the lamps.

Name	Range [Default]	Remarks
Behavior after power off	No reaction, off, 20%,35%,50%,65%,80%,100% [no reaction]	Define channel behavior when bus is powered down
Behavior after reset	Off,On,last value, Light value(10%,20%,30%,40%,...,100%) [last value]	Define the channel behavior when the bus is powered on

Picture45 : Bus up / down behavior

The precondition for the bus up / down behavior to be executed is that the strong wire of the device is powered. Each channel can independently configure the power on / off behavior.