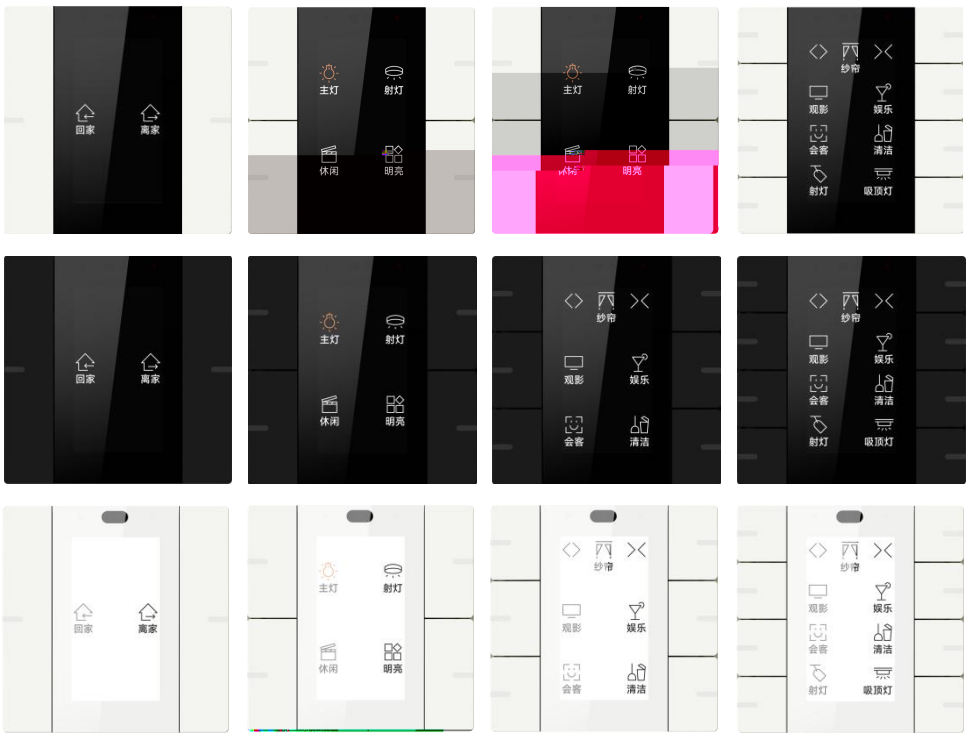
K-BUS



注意事项

1、请远离强磁场、高温、潮湿等环境；

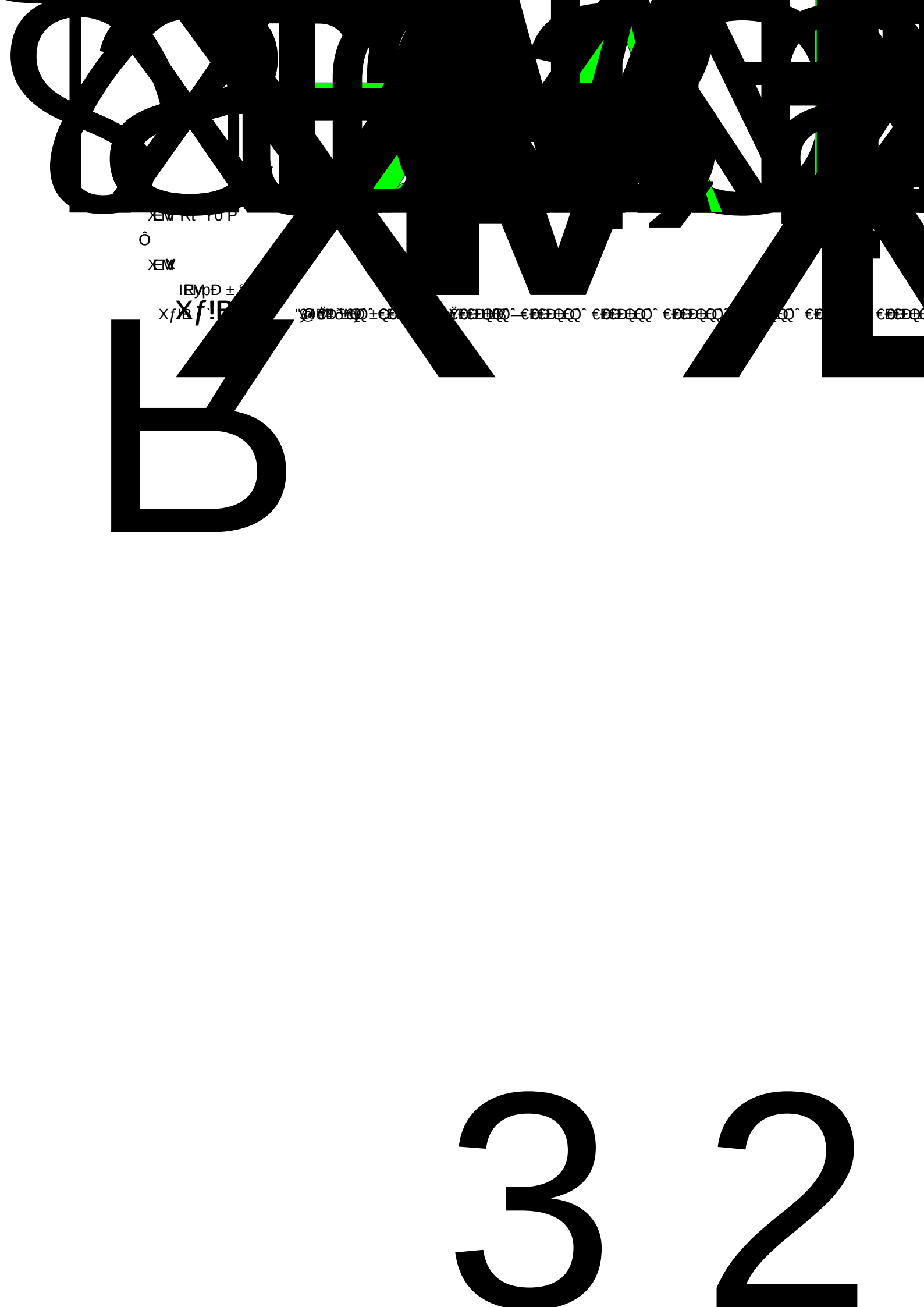
或具挥发性的试剂擦拭设备；

3、不要使用湿布

'Æ

¼

'Æ qa ™÷Ö Ÿ



32

KNX

!

k

55mm

k

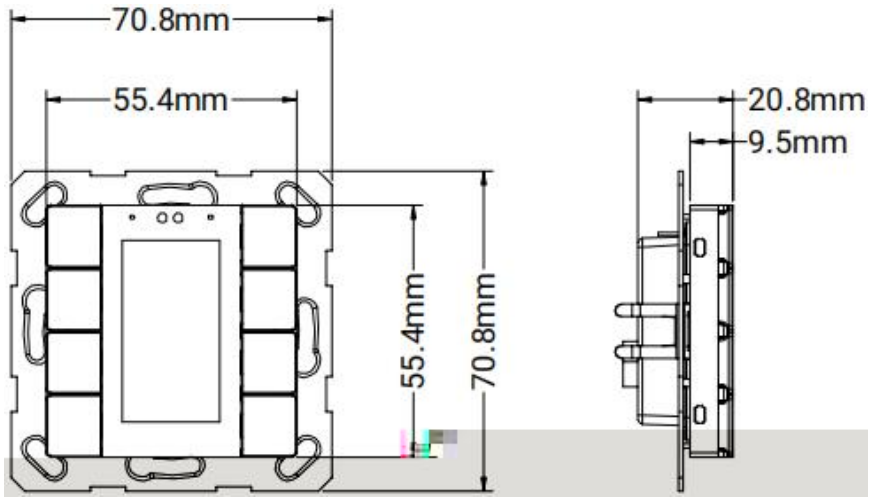
k

KNX 80 86

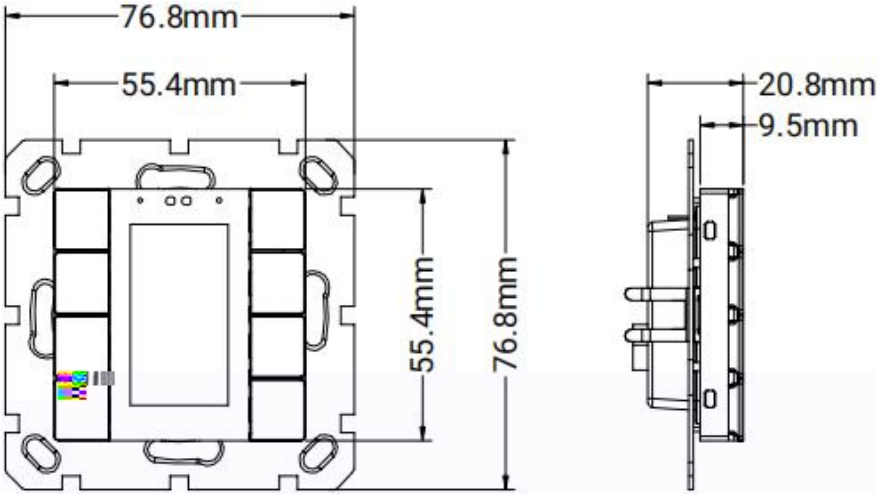
.knxprod ETS ETS5.7 k

-
- ! ! RGB ! RGBW ! ! ! ! ! ! !
  !
- ! ! ! !
- ! !
- ! ! !
- /
- HVAC 2 PI
  2 4
- 2 NTC
- 8 8
- 8 ! !
  !

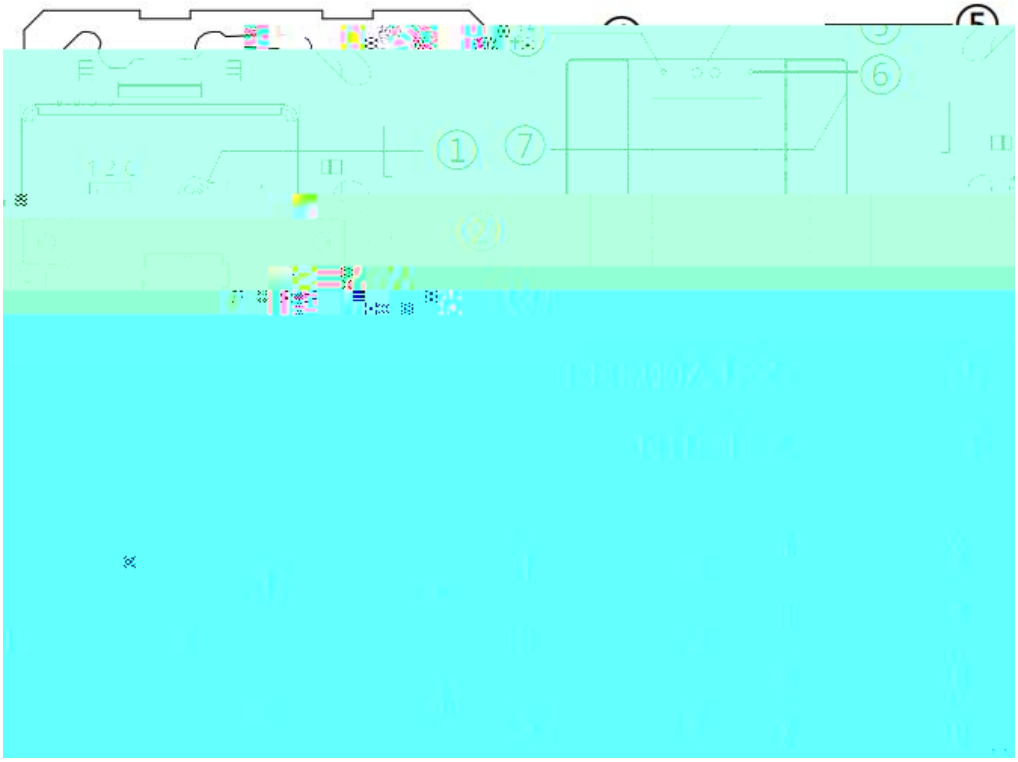
	21-30V DC, KNX
	<23mA/24V <18.5mA/30V <0.55W
2	10K NTC
KNX	(/)
	1 3 <5m
	LED
	LED LED
	15cm 30cm
	– 5 °C ... 45 °C
	– 25 °C ... 55 °C – 25 °C ... 70 °C
	<93%
70.8 x 70.8 x 20.8 mm 80 76.8 x 76.8 x 20.8 mm 86	
80 86	
0.06kg	


70.8mm
55.4mm
55.4mm
70.8mm
20.8mm
9.5mm

80


76.8mm
55.4mm
55.4mm
76.8mm
20.8mm
9.5mm

86



LED

KNX LED

LED

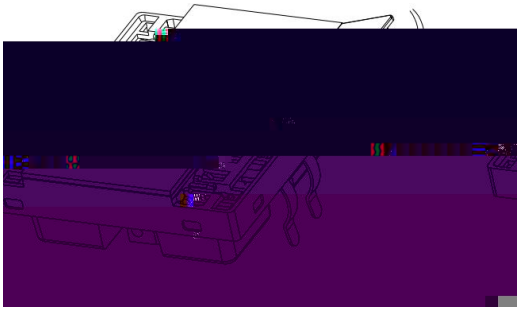
/

CHPBD-0x/55.1.0y CHKAM-0x/55.2.0y CHKAG-0x/55.2.0y

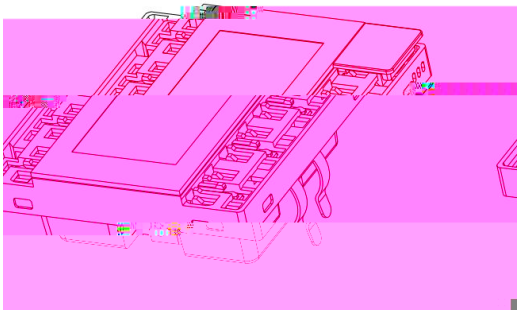
4

1.

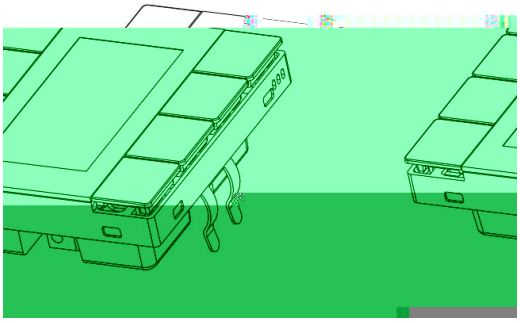
2.



3.



4.



! / ! k

! ! ! k

k

k

2 / k

! ! / /

k

B k

k ! !

k

! ! RGB / ! RGBW / ! /

! ! ! ! ! ! ! RGB ! RGBW ! !

k

! ! ! ! k

! 2/4 / ! 4 ! !

! ! ! ! ! 2 PI

-10~10°C

k

8 8 1 k

! ! ! ! ! ! ! k

8 8

1bit/1byte/2byte/3byte/6byte k

KNX KNX k k

ETS

❖ KNX k

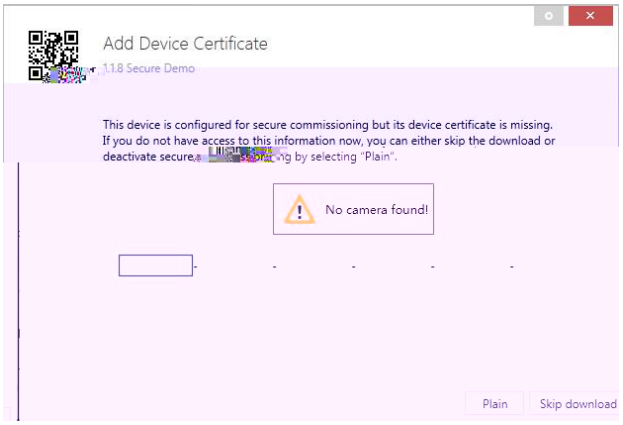
k

❖ KNX k FDSK =

ETS

✧ ETS 5.1 (2) k

QR k

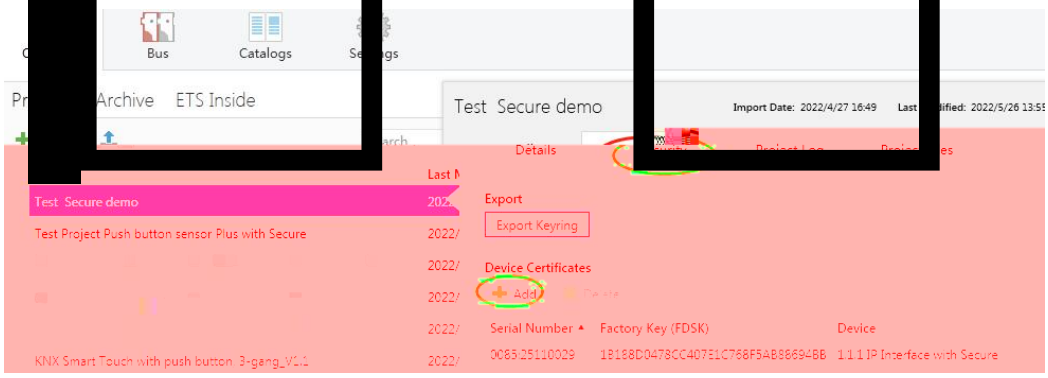


5.1(2) Add Device Certificate

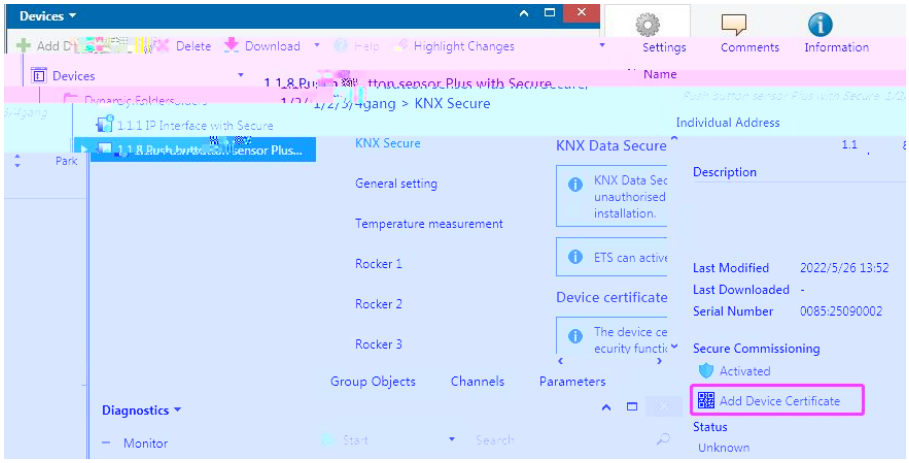
✧ ETS k

“Security” 5.1(3) k

“Add Device Certificate” 5.1(4) k



5.1(3) Add Device Certificate



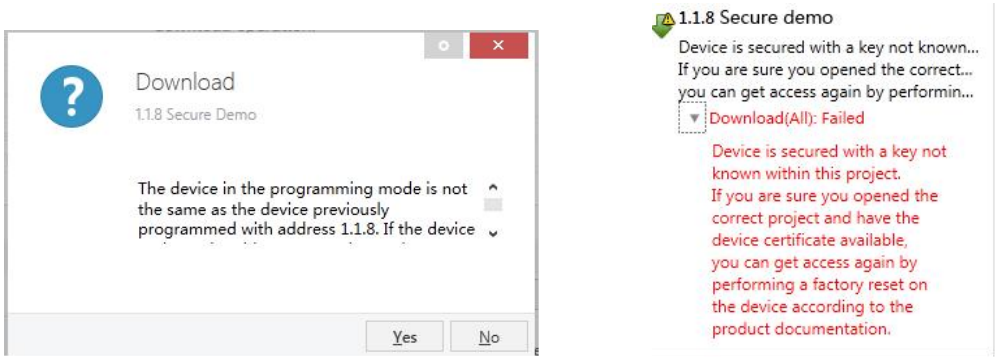
5.1(4) Add Device Certificate

✧ FDSK ᵏ

k

5.1(6) “Yes” “Add Device Certificate” FDSK

5.1(6) k



5.1(6)

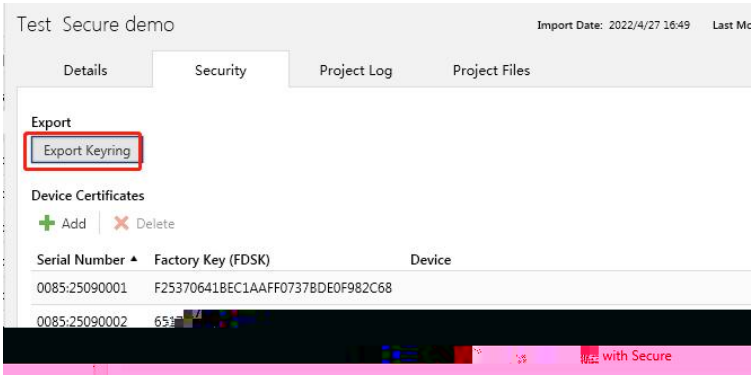
k

“Add Device Certificate” k

5.1(7)

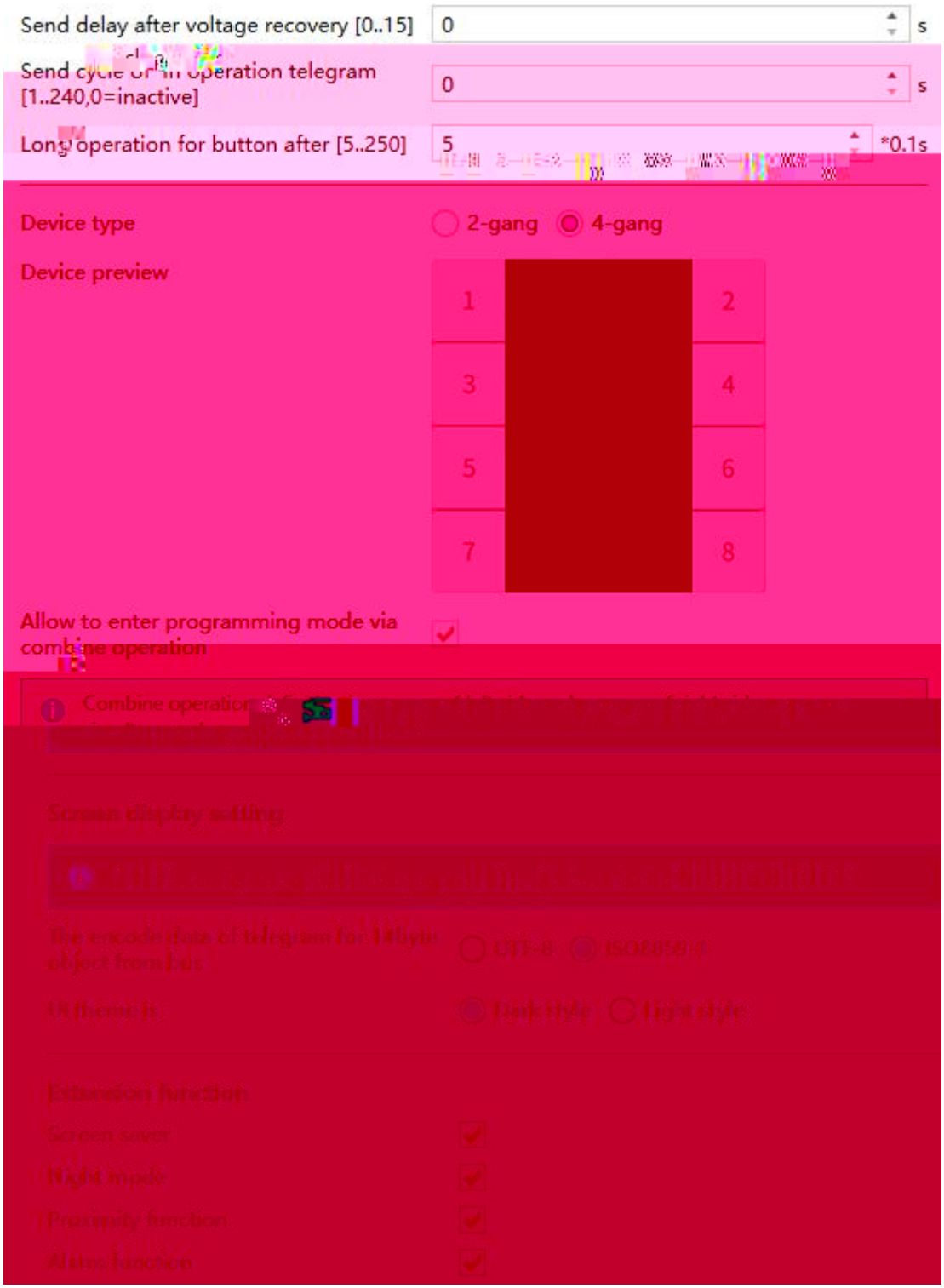
ETS

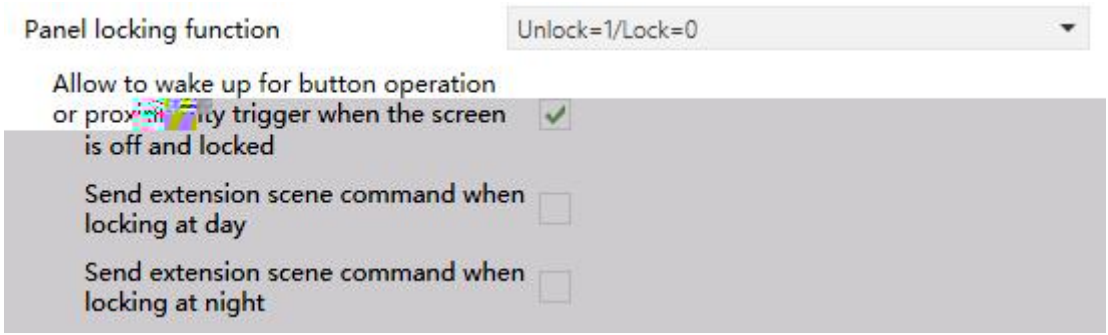
5.1(8) .knxkeys k


Test Secure demo
Import Date: 2022/4/27 16:49
Last Mo
Details
Security
Project Log
Project Files
Export
Export Keyring
Device Certificates
Add
Delete
Serial Number
Factory Key (FDSK)
Device
0085:25090001
F25370641BEC1AAFF0737BDE0F982C68
0085:25090002
with Secure

5.1(8)

k


Send delay after voltage recovery [0..15]
0
s
Send cycle of in operation telegram [1..240,0=inactive]
0
s
Long operation for button after [5..250]
5
*0.1s
Device type
2-gang
4-gang
Device preview
1
2
3
4
5
6
7
8
Allow to enter programming mode via combine operation
Combine operation
Screen display setting
Extension function
Screen saver
Night mode
Proximity function
Alarm function



5.2.1 “General setting”

k

k

k “0” “In operation” k “0” “In operation” “1”

k

k

k

k

1 3 3-gang

2 4 4-gang

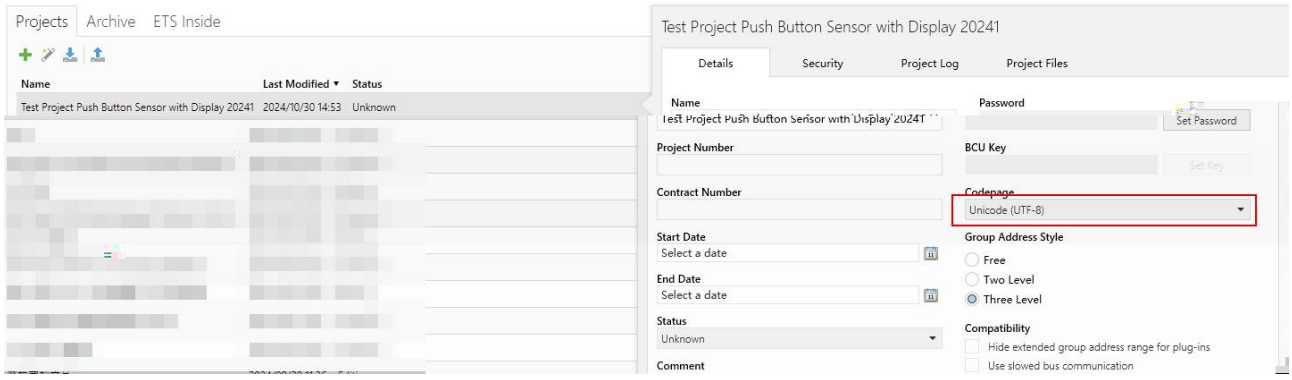
k 5

k k

Note:The codepage option in the property of project must select the Unicode(UTF-8)

k

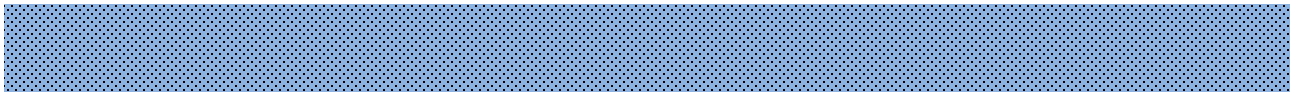
UTF-8



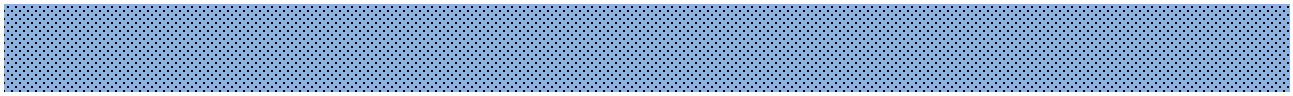
14byte k

(UI) k

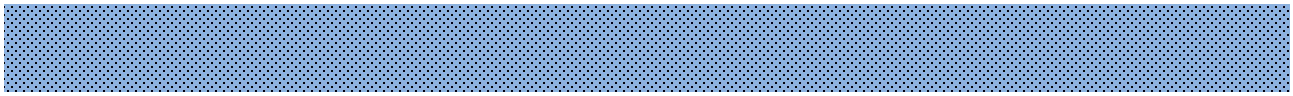
k



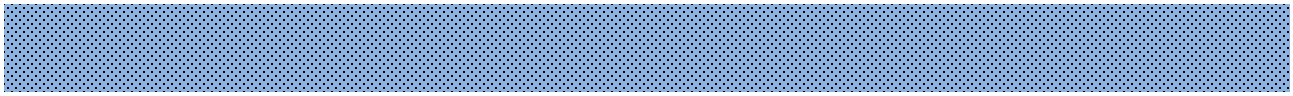
k



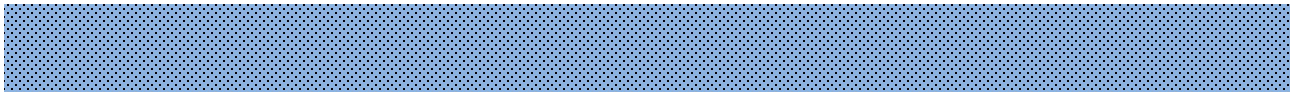
k



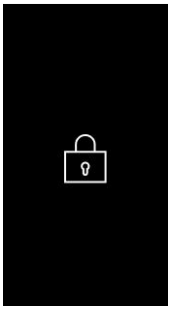
k



k



k



k

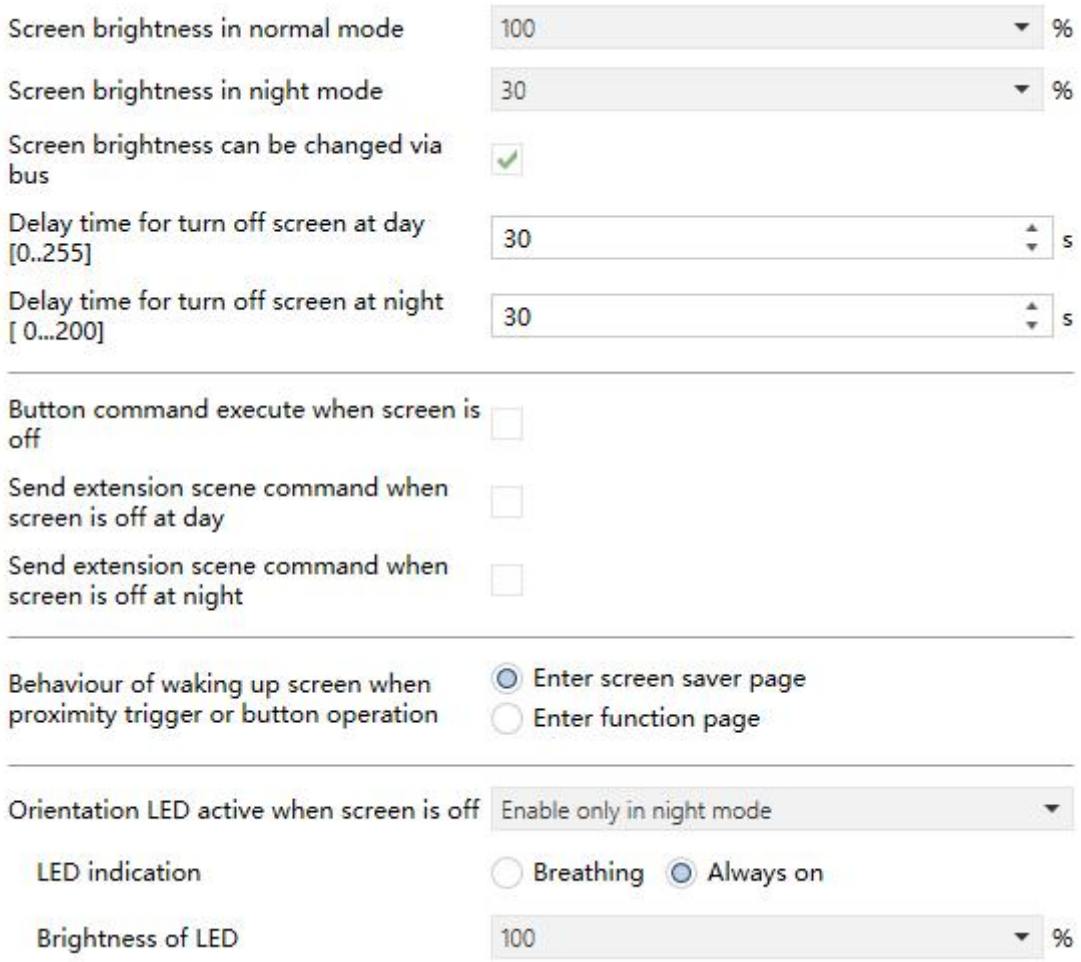
k

k

/ k

k

0~63 k



5.2.2 “Brightness setting”

(/) k

“Screen brightness” k

k (/) k

“Screen brightness” k

“Unchanged”

k

k

“Screen brightness” k

k k

k

k

0 1 “Screen on/off” / k

k

k / k

k

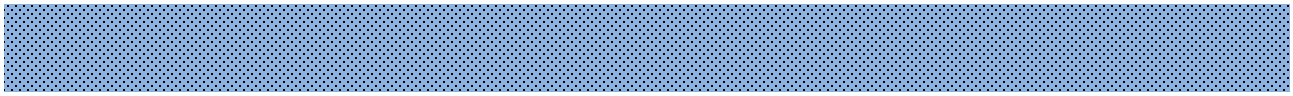
0~63 k

0 k k

k 0 k

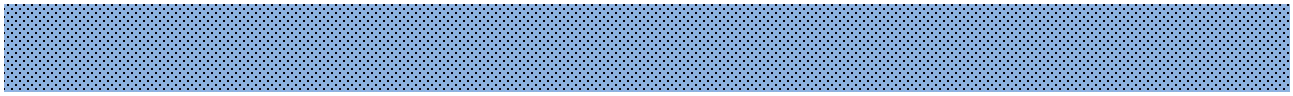
k

In this case,then the screen will recover only after receiving a screen on telegram,please check to avoid discussion



k

“Enter screen saver page” k



LED k

“Enable only in night mode” k

“Disable” k LED k

“Enable only in night mode” “Enable always” k LED

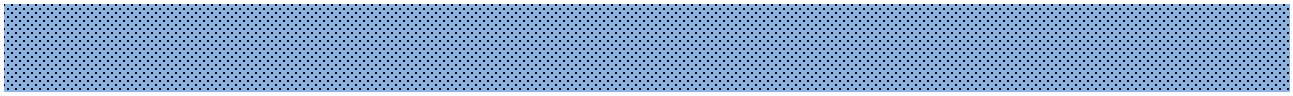
k

5.2.3 “Screen saver setting”

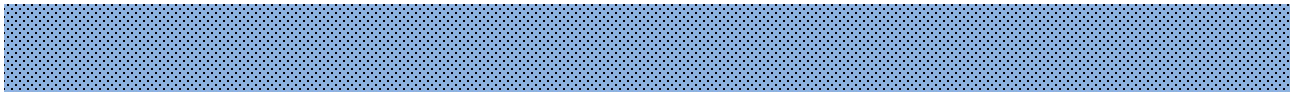
k

k

k

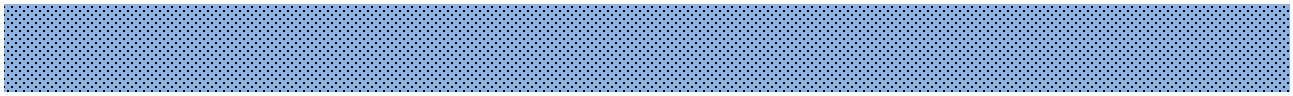


k



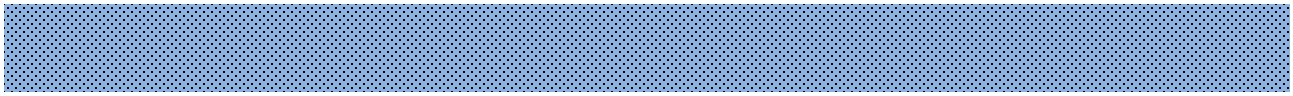
4 k

“None” k Item 1 “None” k

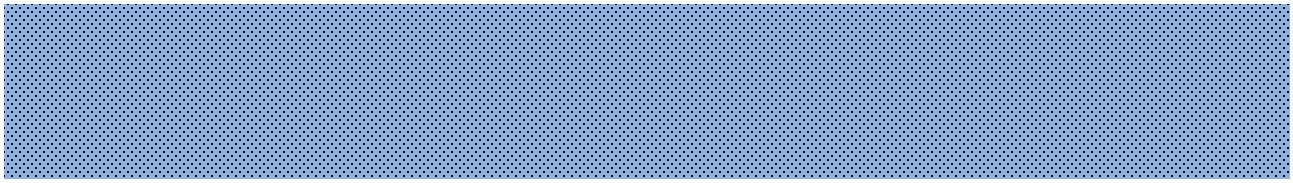


k

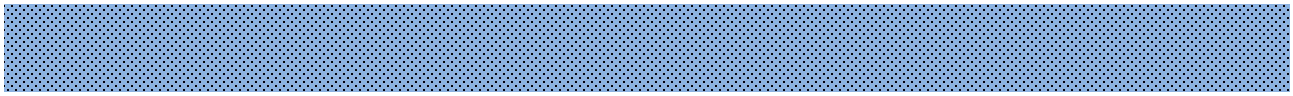
7 k



k

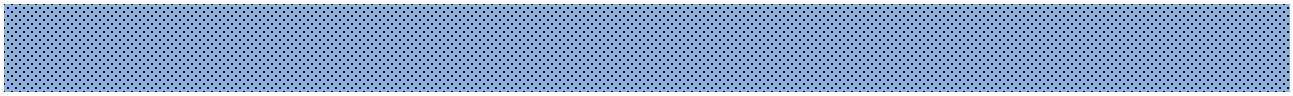


1bit k 0 ! 1 k



k -C % 1byte/2byte/4byte

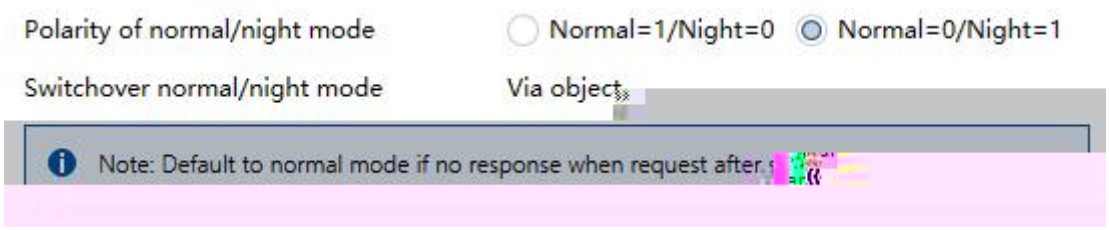
k



2byte float value 4byte float value k k

! 1 k

0 k



5.2.4 “Night mode setting”

/ k

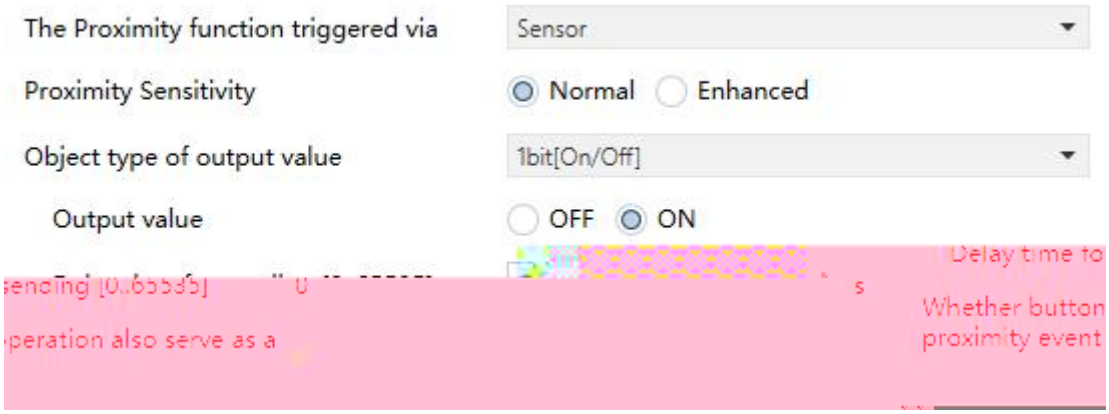
/ “Night mode” k

k

Note: Default to normal mode if no response when request after startup

k !

k



5.2.5 “Proximity setting”

k

“Sensor or Proximity object” k

“Sensor” “Sensor or Proximity object” k

k

15cm 30cm k

k

“No reaction” k

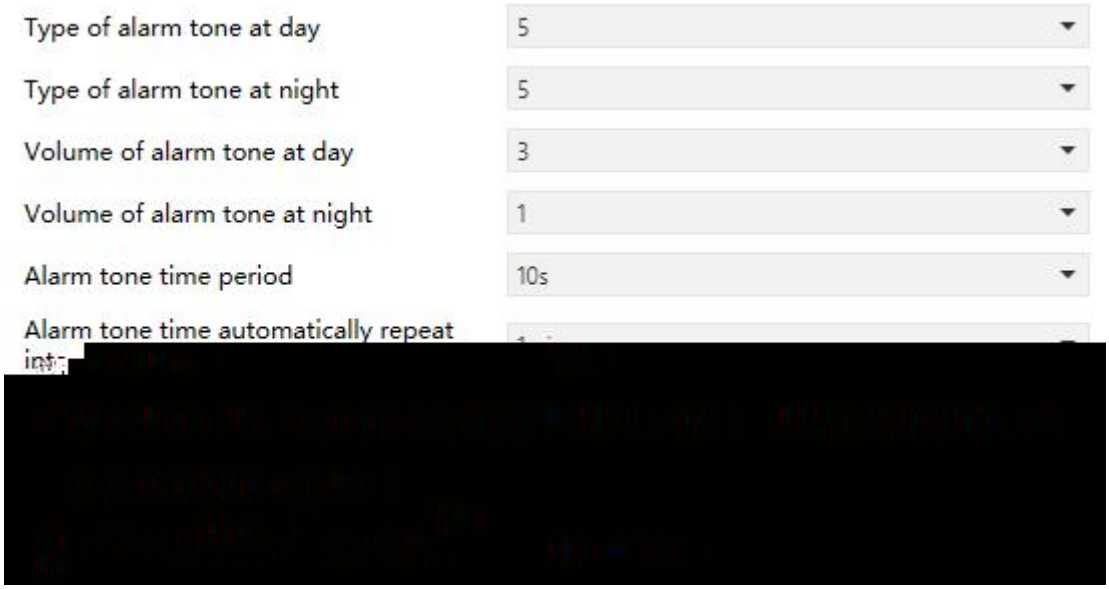
/

k

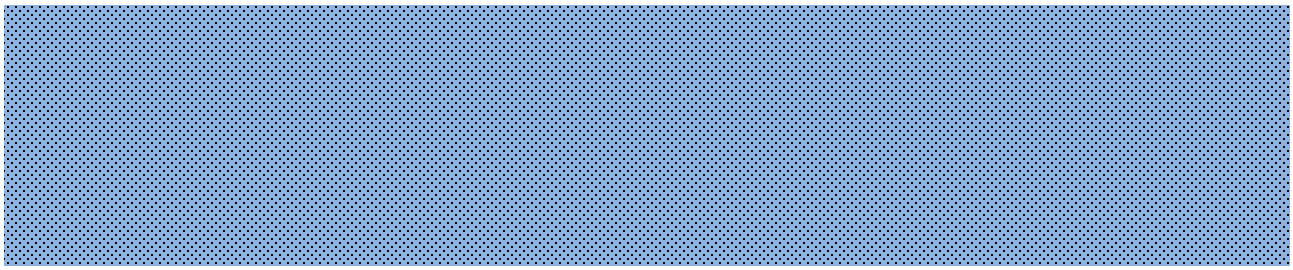
k

k

k

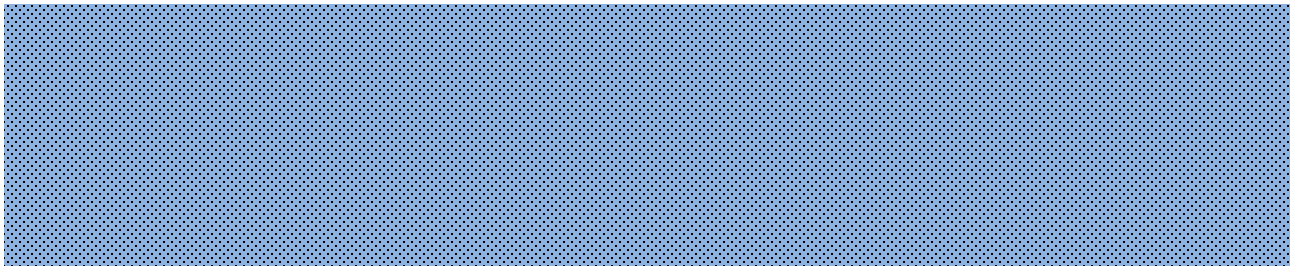


5.2.6 “Alarm setting”



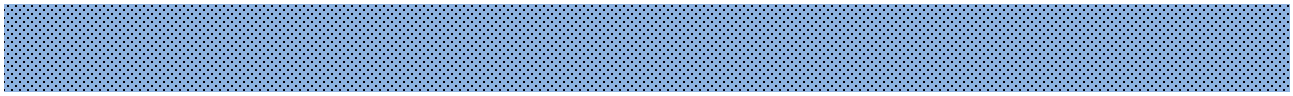
k

/ k



3 k

/ k



k

k

Disable

k

k

k

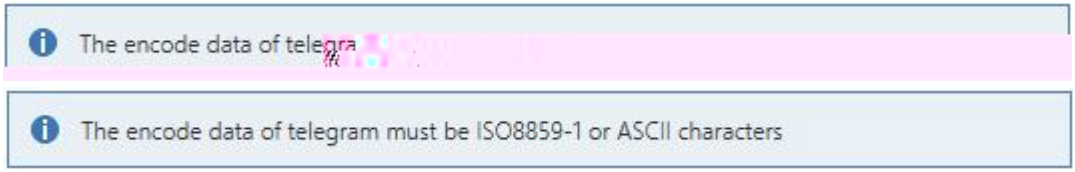
Disable

k

ETS

14byte k

“14 Bytes string from bus”



k

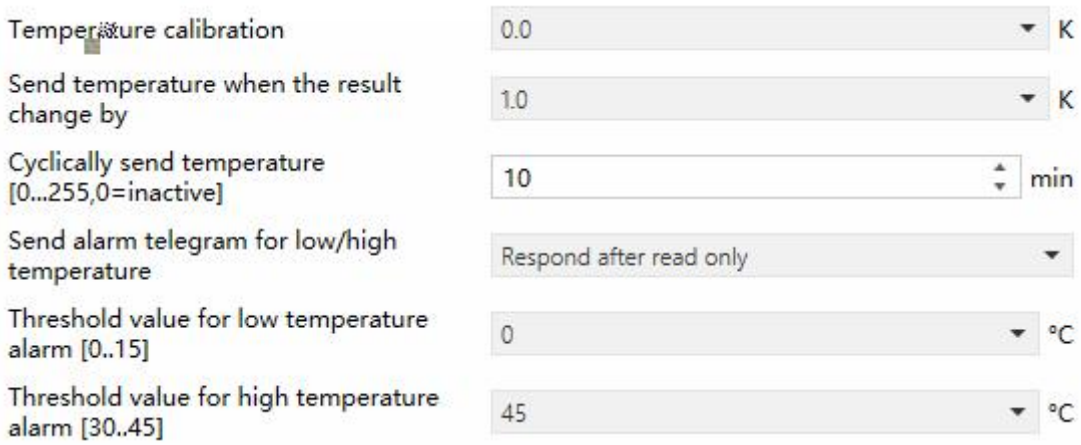
“Fixed string” k k

1bit k

- [ ] Room temperature controller
- [ ] Input interface
- [ ] Logic function
- [ ] Scene group function

!

k



5.3.1 “Temperature sensor”

k

k

k Disable k

k 0 k

k

/ k

No respond

Respond after read only

“ Low temperature alarm”/“

k k

k k

5.3.2 “Humidity sensor”

k

k 0 k

k 0 k

k

/ k

No respond

Respond after read only

“ Low humidity alarm”/“ High humidity alarm”

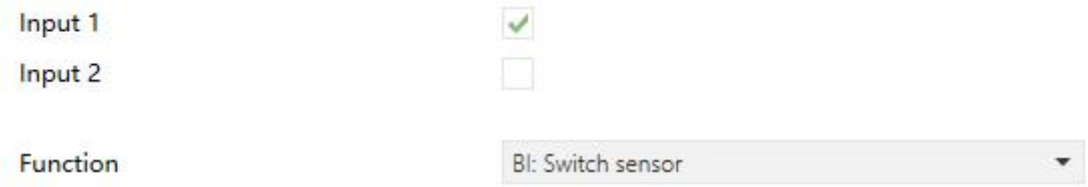
Respond after change “ Low humidity alarm”/“ High humidity alarm”

k

“Respond after read only” “Respond after change” k

k k

k k



5.4 “Input”

k k

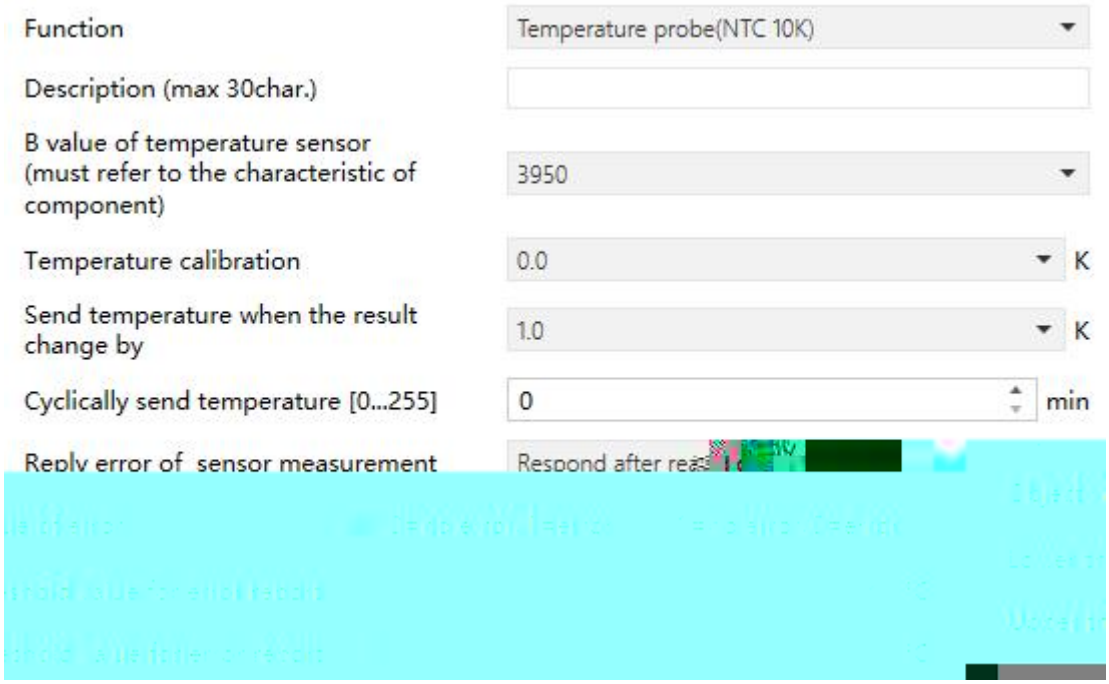
k

B

! ! / /

k

k



5.4.1

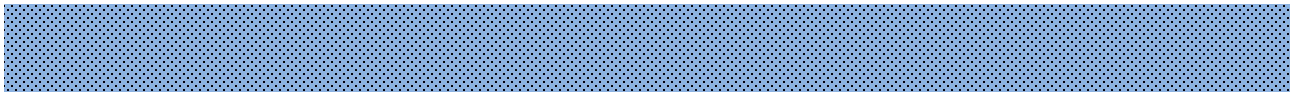
k

NTC B k

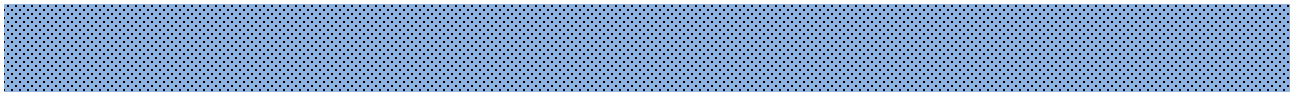
k

k

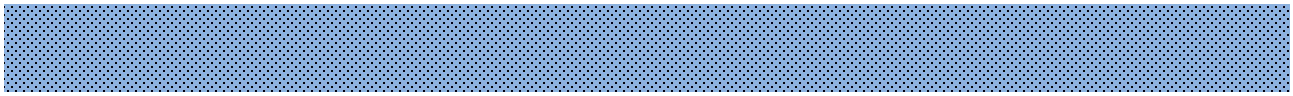
k



k Disable k



k 0 k



k

No respond

Respond after read only

“ Temperature error report, Sensor”

Respond after change “ Temperature error report, Sensor”

k

“Respond after read only” “Respond after change” k

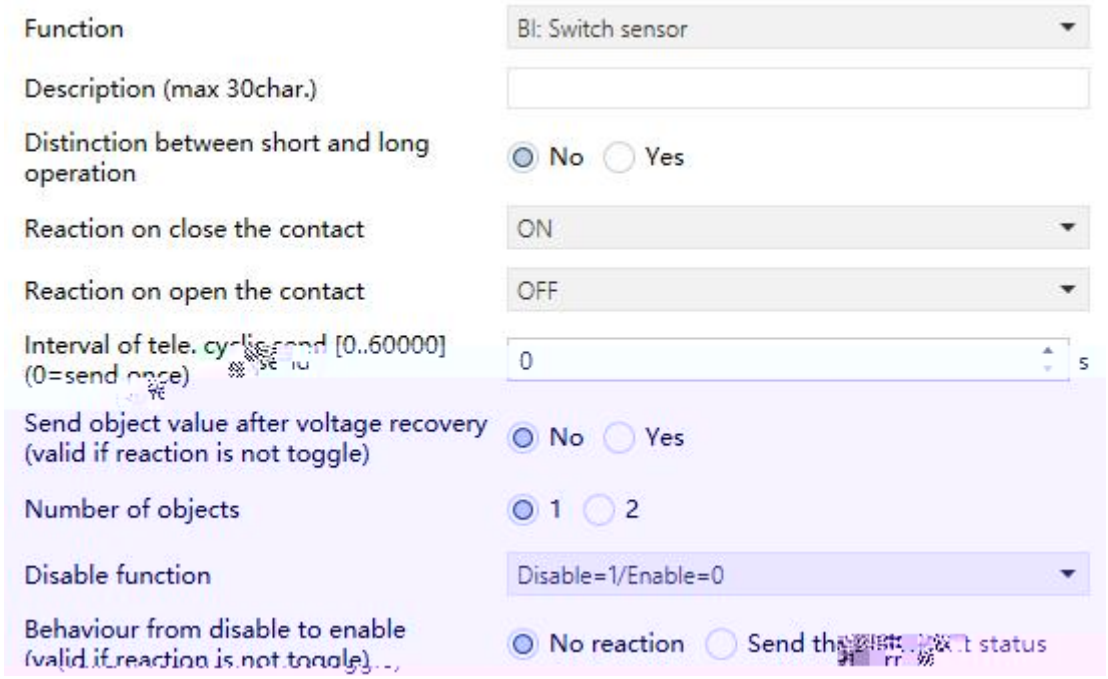
k

0=no error/1=error 0 1

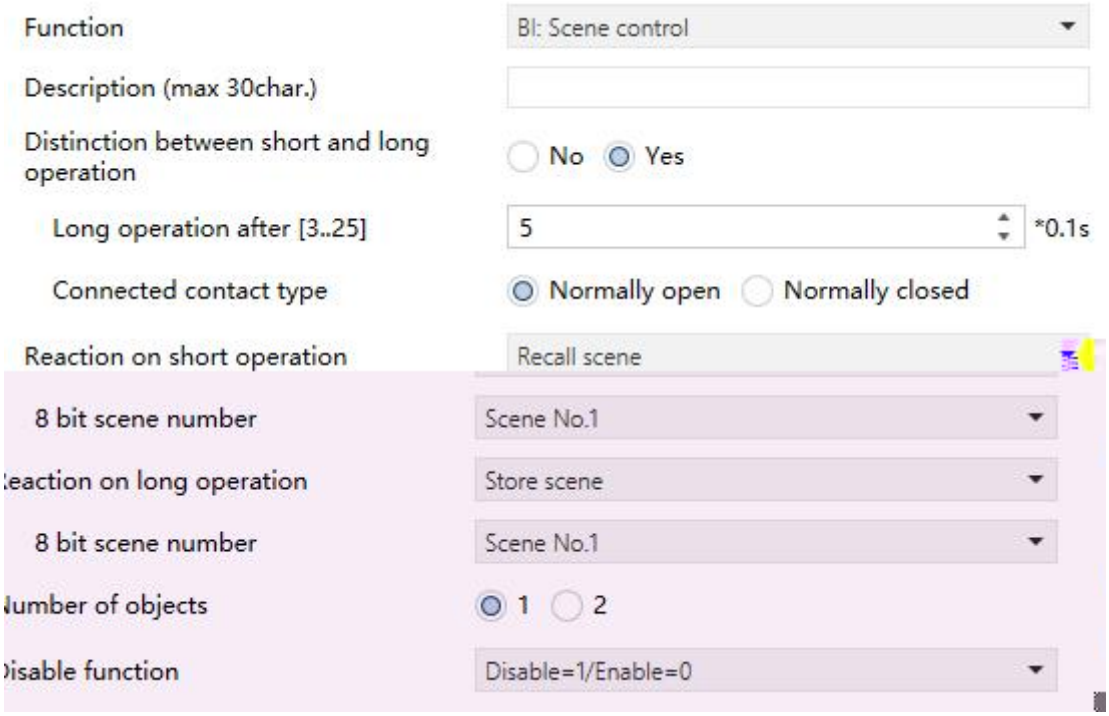
1=no error/0=error k

k k

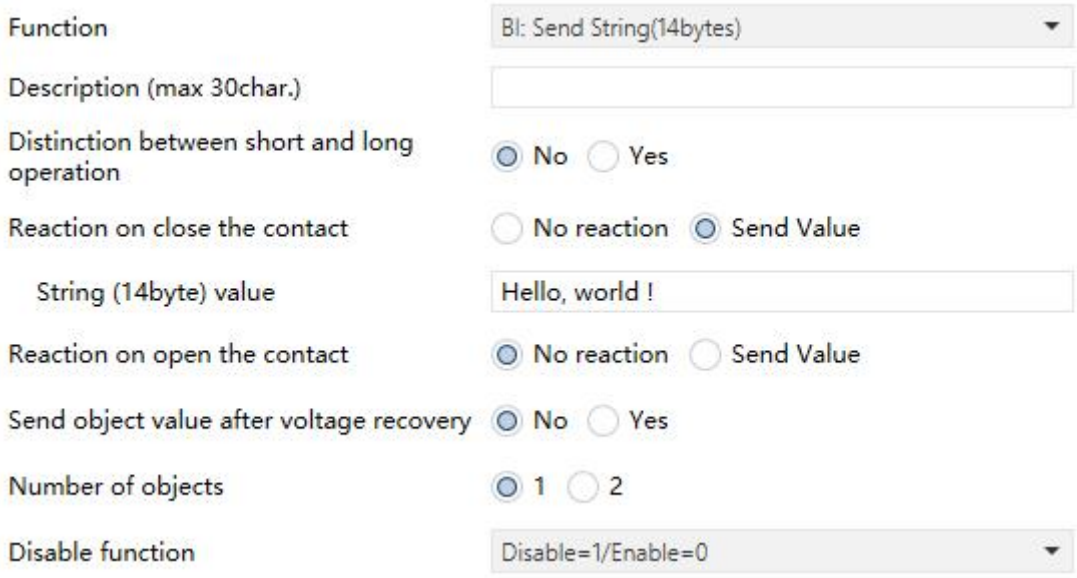
k k


Function
BI: Switch sensor
Description (max 30char.)
Distinction between short and long operation
No
Yes
Reaction on close the contact
ON
Reaction on open the contact
OFF
Interval of tele. cyclic send [0..60000] (0=send once)
0
s
Send object value after voltage recovery (valid if reaction is not toggle)
No
Yes
Number of objects
1
2
Disable function
Disable=1/Enable=0
Behaviour from disable to enable (valid if reaction is not toggle)
No reaction

5.4.2(1)


Function
BI: Scene control
Description (max 30char.)
Distinction between short and long operation
No
Yes
Long operation after [3..25]
5
*0.1s
Connected contact type
Normally open
Normally closed
Reaction on short operation
Recall scene
8 bit scene number
Scene No.1
Store scene
Scene No.1
1
2
Disable=1/Enable=0

5.4.2(2)


Function
BI: Send String(14bytes)
Description (max 30char.)
Distinction between short and long operation
No
Yes
Reaction on close the contact
No reaction
Send Value
String (14byte) value
Hello, world !
Reaction on open the contact
No reaction
Send Value
Send object value after voltage recovery
No
Yes
Number of objects
1
2
Disable function
Disable=1/Enable=0

5.4.2(3)

k

k

/ k

k

/ k k

/ “TOGGLE” “No reaction”

k

k

/ k

k

/ k

k

“Recall scene” “Store scene” k

k

/ k

/ k

“Send Value” k k

/ k

“Reaction on short/close operation” “Reaction on long/open operation” “No reaction”

k / 1 2 k

k / k

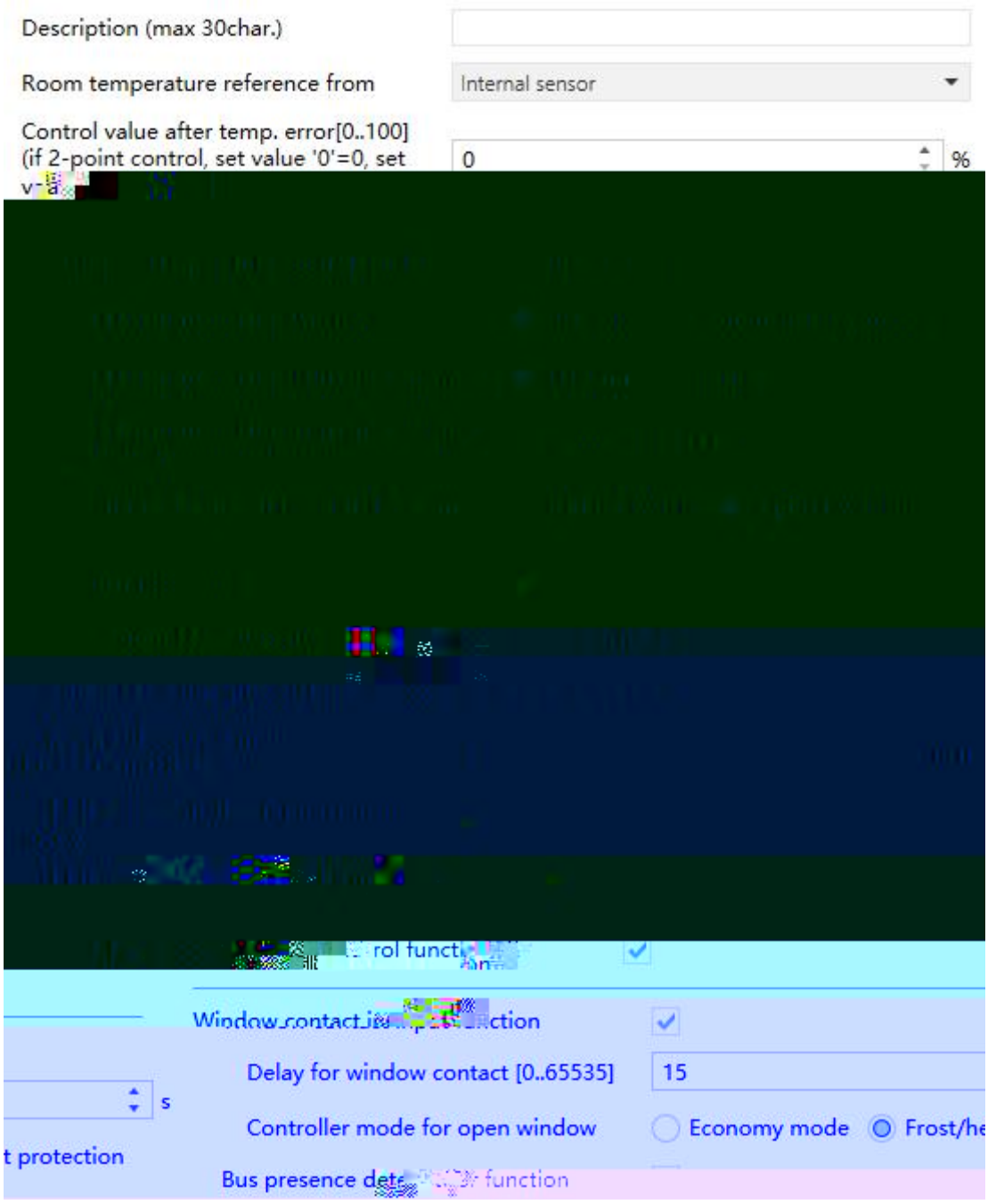
BI: Switch sensor /

ON OFF

“Advanced function” “Room temperature controller” k

5.5 “Room temperature controller”

k k


Description (max 30char.)
Room temperature reference from
Internal sensor
Control value after temp. error[0..100]
(if 2-point control, set value '0'=0, set
0
%
Window contact
Delay for window contact [0..65535]
15
s
Controller mode for open window
Economy mode
t protection
function

5.5.1 “RTC x”(x=1,2)

30 k

k

k

k

“40% Internal to 60% External” 40% 60%

= Ô40% + Ô60%

k

k

k

k

0 k

k

PI 40% 40% 60% k

0 0 0

1 k k

/ 0 0% k

1 100% k

k

Heating and Cooling k k

/ k

RTC / k

RTC / k

As before voltage failure k

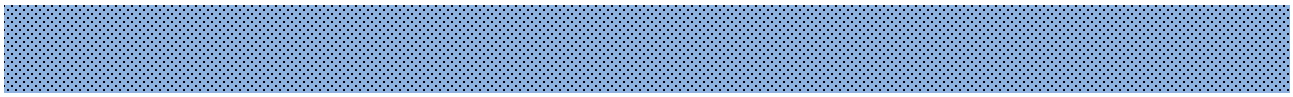
k

k

2 pipes system: k

4 pipes system:

k



k

k

k

-

-

-

-

k k

k

-

-

-

k k

”Room temperature control mode” ”Heating and Cooling” ”Heating/Cooling switchover” ”Automatic changeover” k / k

+

- k

k

RTC k

RTC k open

k ! /

k k

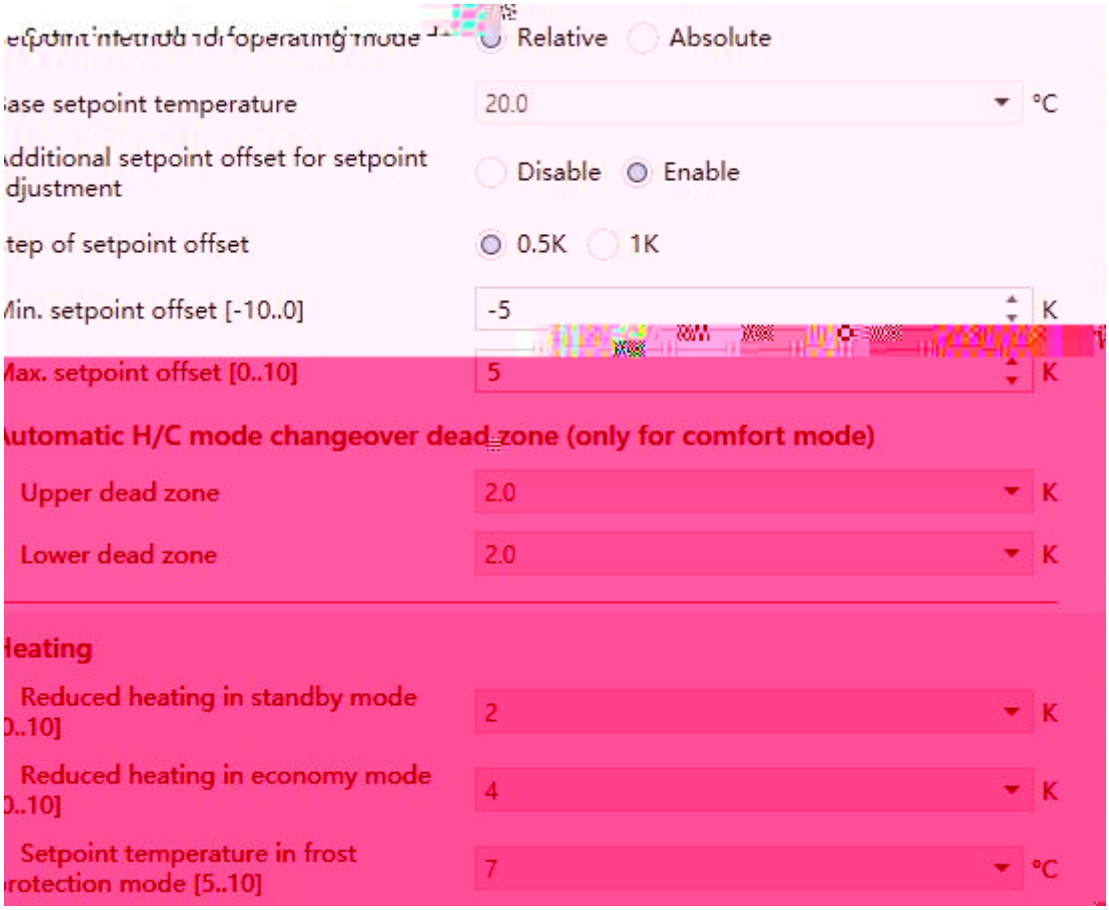
RTC k k

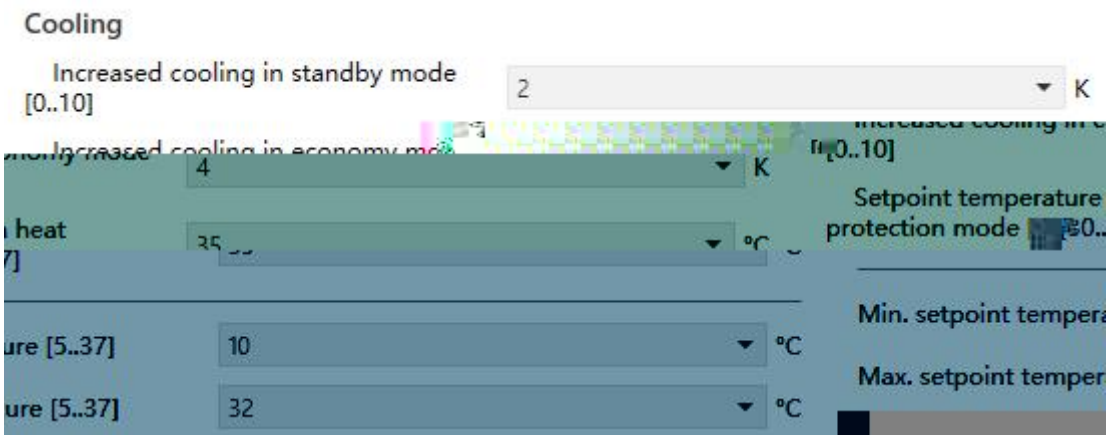
k /

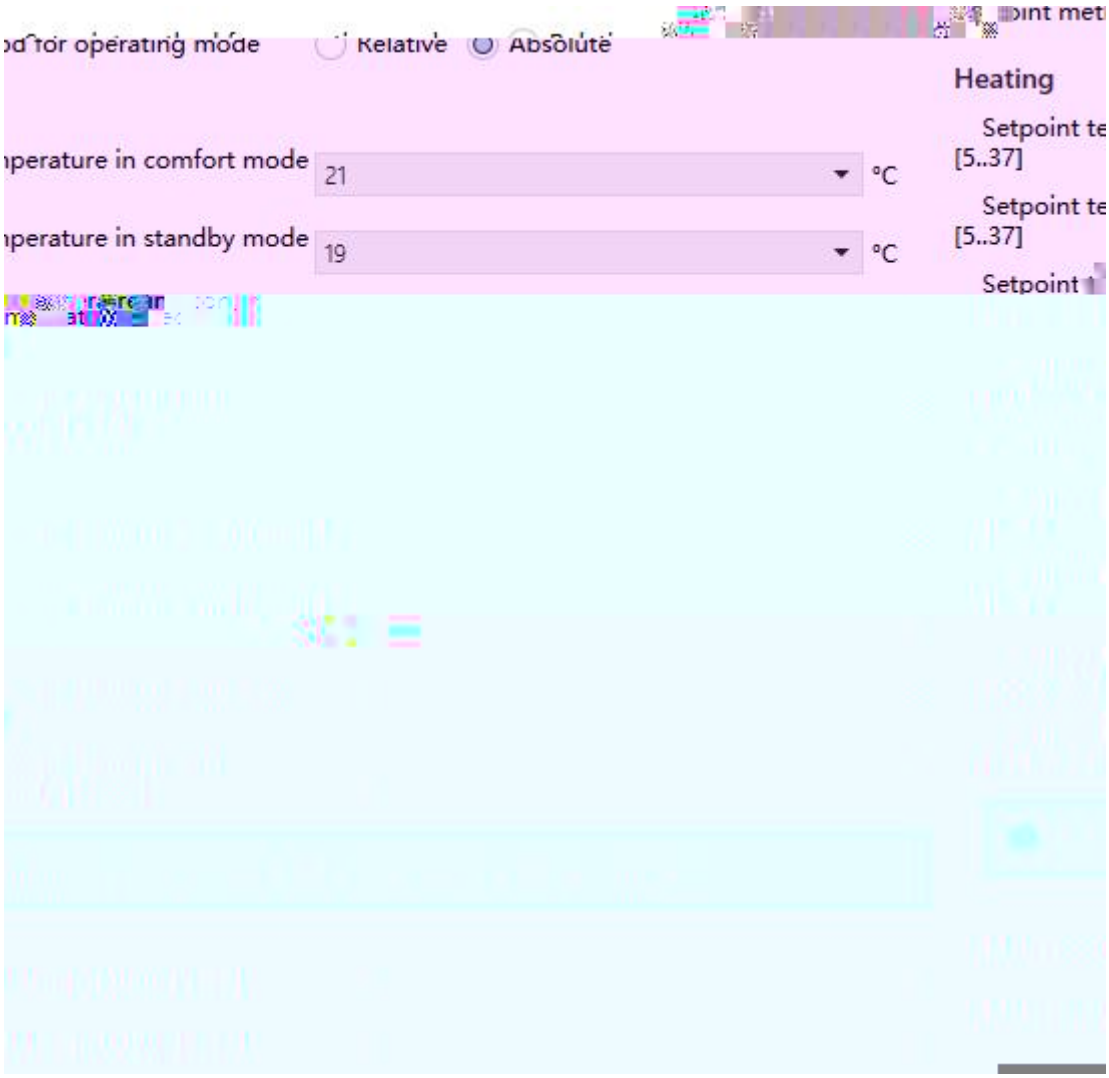
k

k

k


Relative
Absolute
20.0
°C
Disable
Enable
0.5K
1K
-5
K
5
K
Automatic H/C mode changeover dead zone (only for comfort mode)
Upper dead zone
2.0
K
Lower dead zone
2.0
K
Heating
Reduced heating in standby mode
2
K
Reduced heating in economy mode
4
K
Setpoint temperature in frost protection mode [5..10]
7
°C


Cooling
Increased cooling in standby mode [0..10]
2
K
4
K
10
°C
32
°C



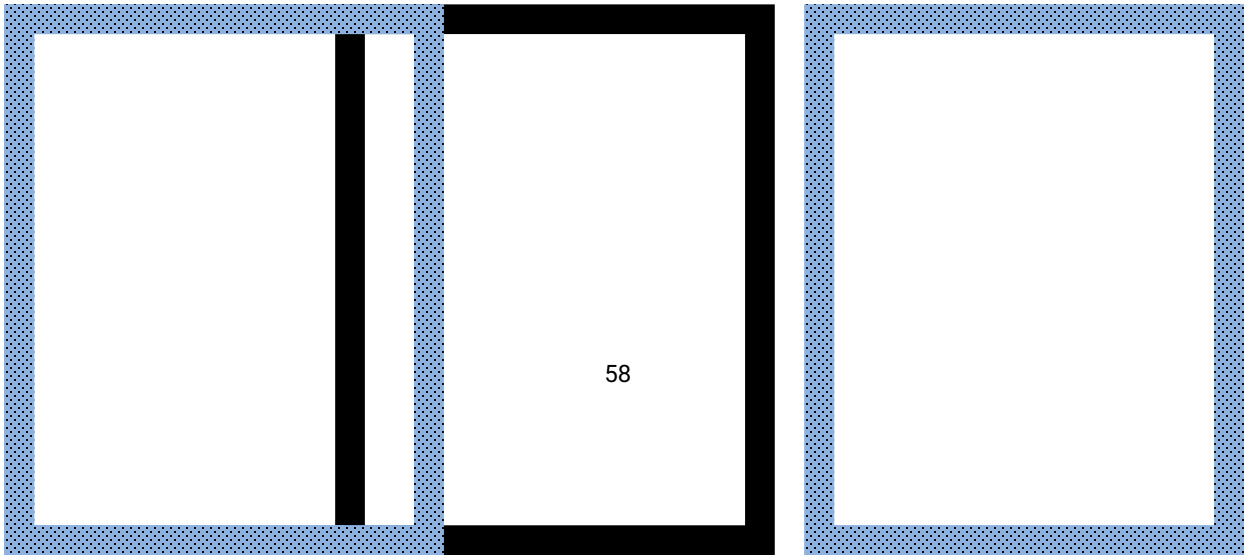
5.5.2 ”Setpoint”

k

Relative k

Absolute k

k



k

/ 1- 0- k

k

= + +

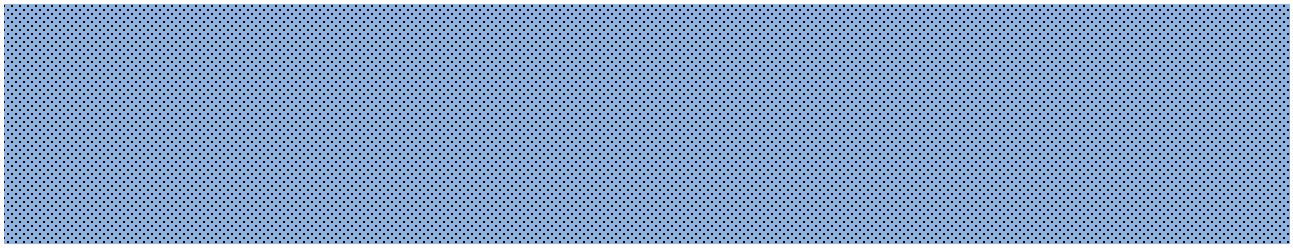
k

k

k

k

k

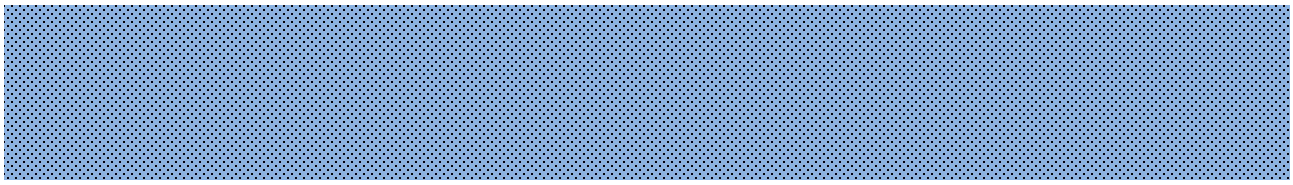


“Heating and Cooling” “Automatic changeover” k

k

+

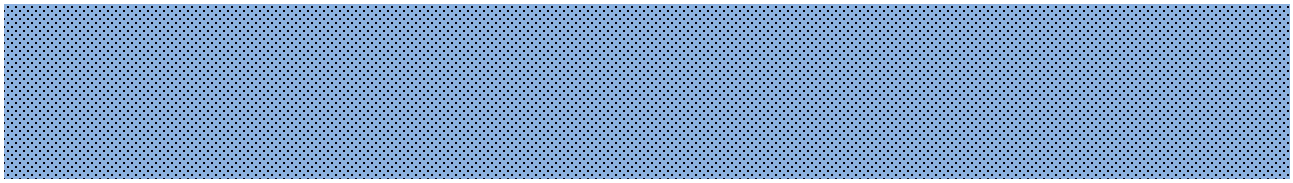
- k



k

Heating

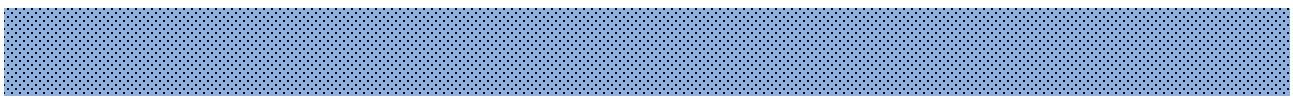
Cooling k



k

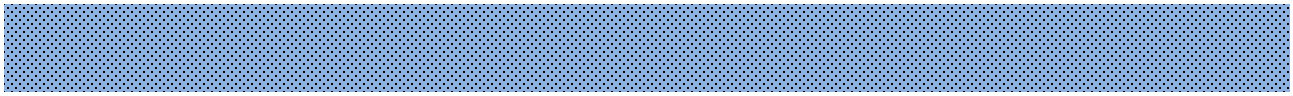
Heating

Cooling k



k

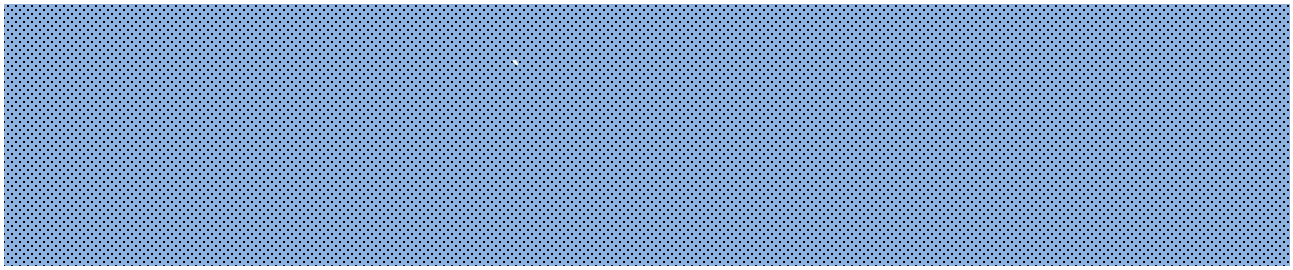
k



k

k

k

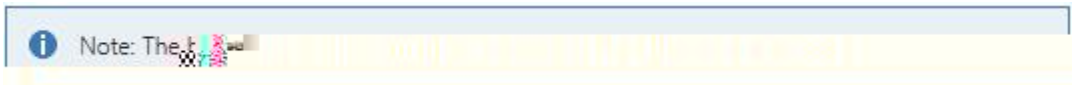


!

k

k

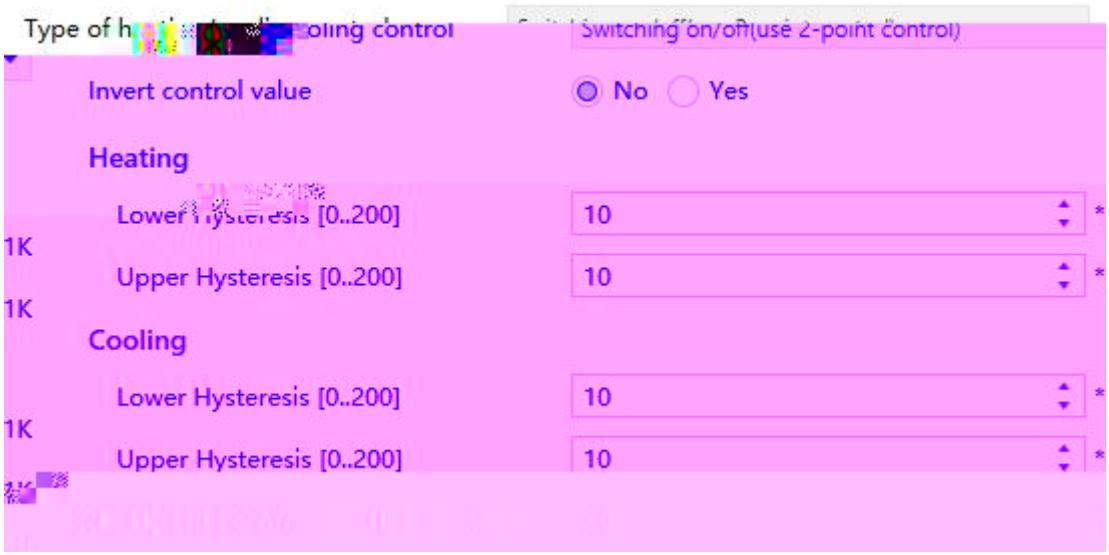
k



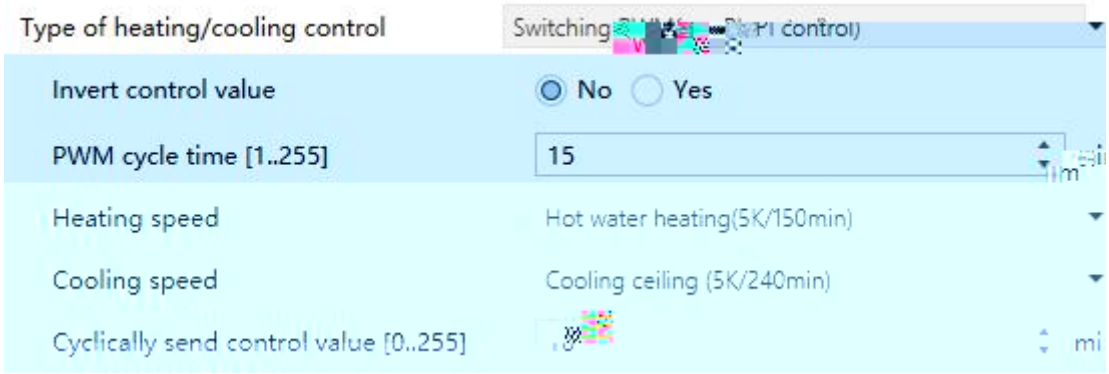
k

k

k

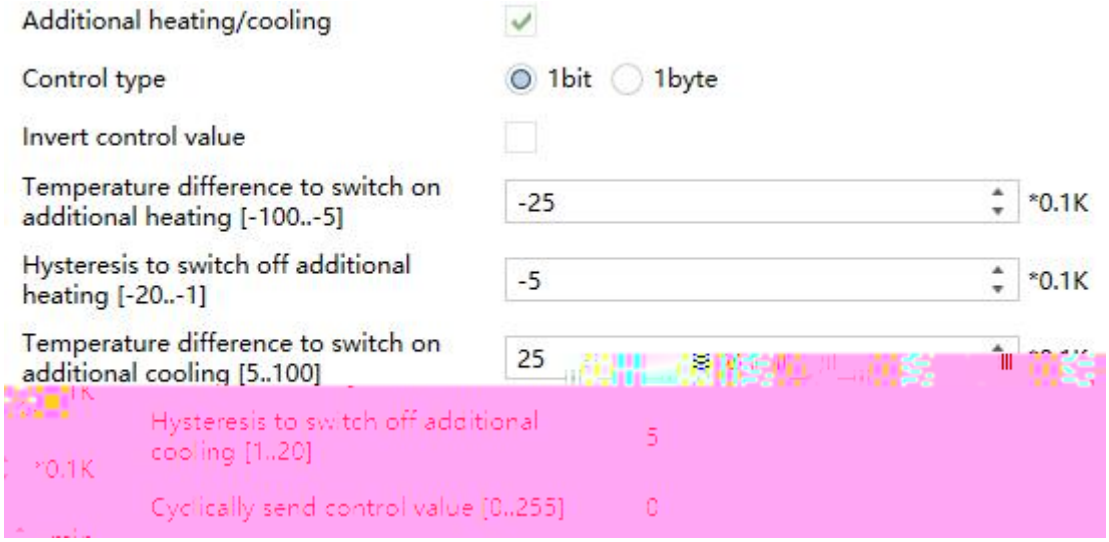


Switching on/off(use 2-point control)



Switching PWM(use PI control)

Continuous control(use PI control)



Additional heating/cooling

5.3.3(1) ”Heating/Cooling control”

k

k

Yes k

RTC k

k

1K 2K 22℃ T 24℃

T 21℃ T 21~24℃ k

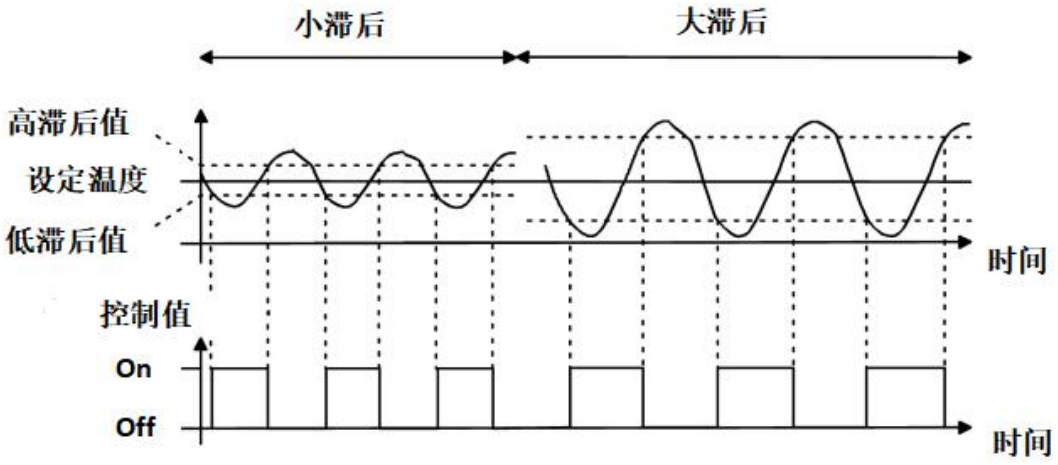
k

1K 2K 26℃ T 25℃

T 28℃ T 28~25℃ k

1.

2. k



5.5.3(2) ( )

“Switching PWM(use PI control)”

10min, 80%

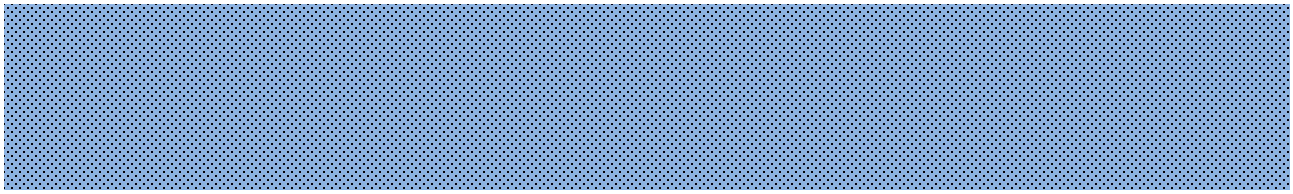
8min 2min /

k

“Switching PWM (use PI control)” “Continuous control (use PI control)” PI

“Continuous control” PI (1byte)

“Switching PWM” PI “on/off” k



PI k k

-
-

“User defined” k PI PI k

“Continuous control (use PI control)”

k

	5K	150min	Continuous/PWM	15min
	5K	240min	PWM	15-20min
	4K	100min	PWM	10-15min
	4K	90min	PWM	10-15min
	4K	90min	Continuous	--

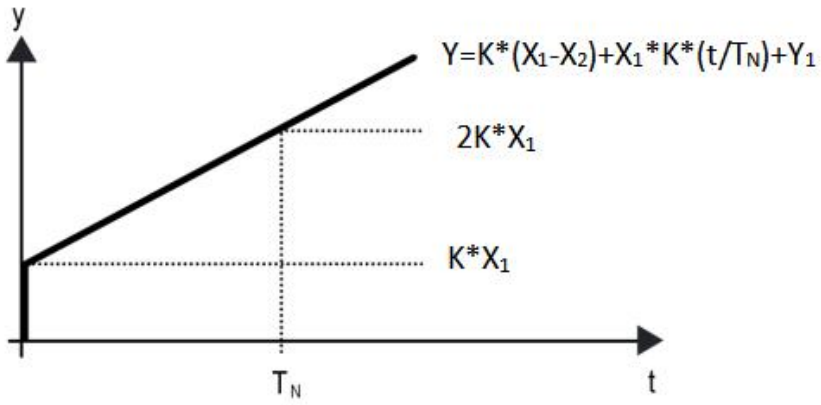
	5K	240min	PWM	15-20mIn
	4K	90min	PWM	10-15min
	4K	90min	Continuous	--

“Heating/Cooling speed” “User defined” P

I k PI

k

k 0 k



5.5.3(3) PI

Y

Y1

X1 =

X2 =

T_N

K

PI Y=K*(X1-X2 +X1*K*t/T_N+Y1

PI Y=K X1-X2 +Y2

K:	
K:	
T_N:	
T_N:	

k

k

k

/ k

k

• •

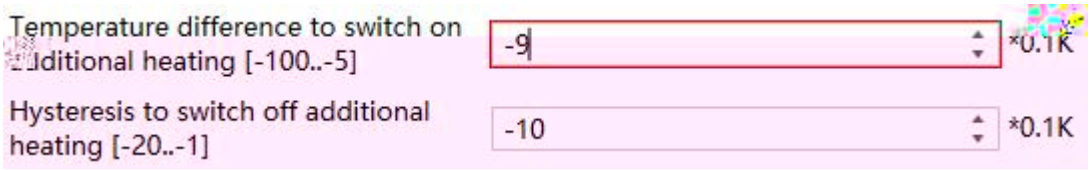
< +

k

• •

> + -

k


Temperature difference to switch on additional heating [-100..-5]
-9
*0.1K
Hysteresis to switch off additional heating [-20..-1]
-10
*0.1K

• •

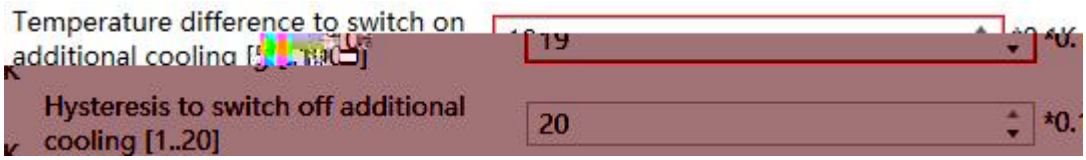
> +

k

• •

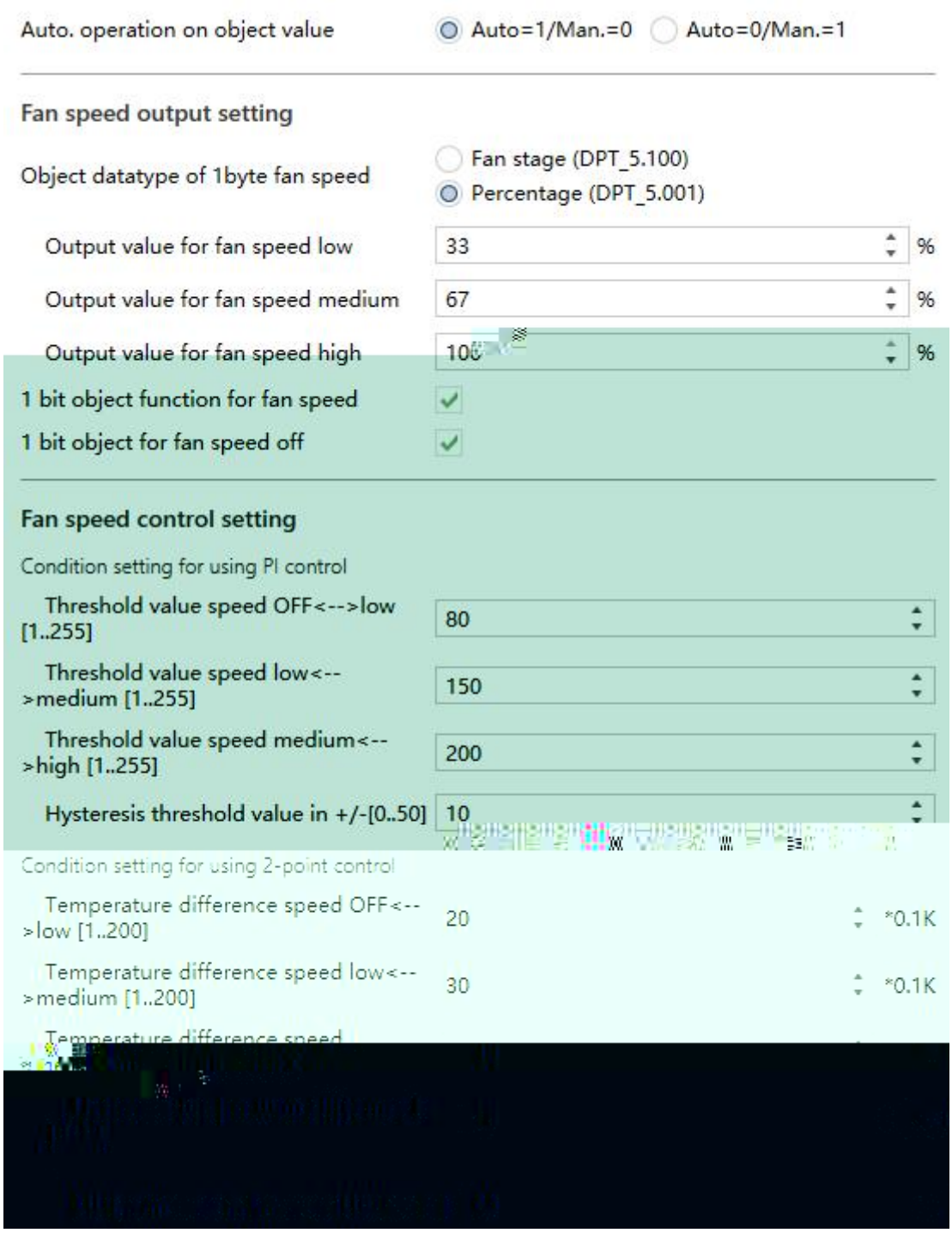
< + -

k


Temperature difference to switch on additional cooling
19
Hysteresis to switch off additional cooling [1..20]
20

k

k


Auto. operation on object value
Auto=1/Man.=0
Auto=0/Man.=1
Fan speed output setting
Object datatype of 1byte fan speed
Fan stage (DPT_5.100)
Percentage (DPT_5.001)
Output value for fan speed low
33
%
Output value for fan speed medium
67
%
Output value for fan speed high
%
1 bit object function for fan speed
1 bit object for fan speed off
Fan speed control setting
Condition setting for using PI control
Threshold value speed OFF<-->low [1..255]
80
Threshold value speed low<-->medium [1..255]
150
Threshold value speed medium<-->high [1..255]
200
Hysteresis threshold value in +/-[0..50]
10
Condition setting for using 2-point control
Temperature difference speed OFF<-->low [1..200]
20
*0.1K
Temperature difference speed low<-->medium [1..200]
30
*0.1K

5.5.4 ”Fan”

k

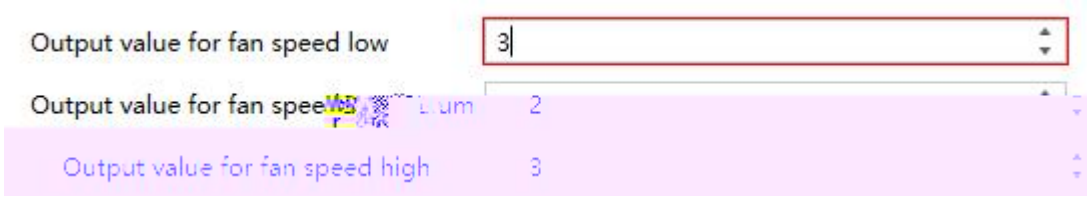
Auto=1/Man.=0	“Fan automatic operation”	“1”	“0”
Auto=0/Man.=1	“Fan automatic operation”	“0”	“1”

k

k

1byte k

k 0 k



1bit k 1bit k

k 1bit k

PI PI

k

k

k

k

k

k

k

k

k

k

k

0

10 50 60 + 40 -

40~60 k 40 (

)60 k

2-point k

-

- k

k

k

k

k

k

k

k

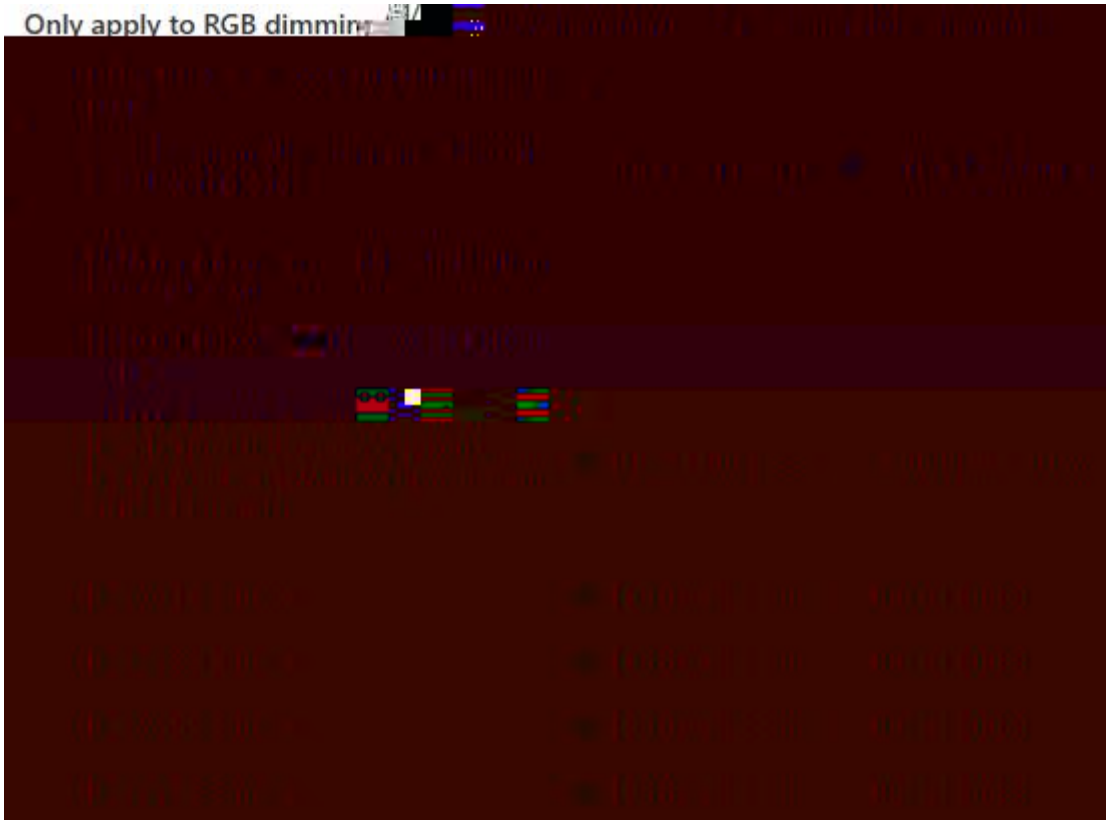
k

0

0.5℃ 1℃ 1.5℃ +

0.5℃ - 0.5℃~1.5℃

k 0.5℃ ( )1.5℃ k



5.6 “Button”

RGB ! RGBW ! k

! UI k

k

RGB ! RGBW !

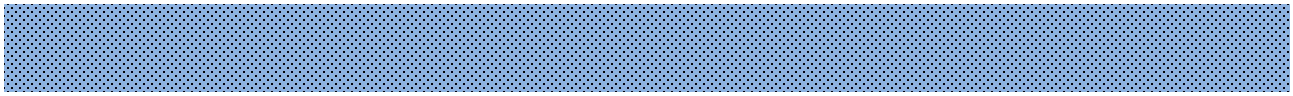
k

Only after release:

k

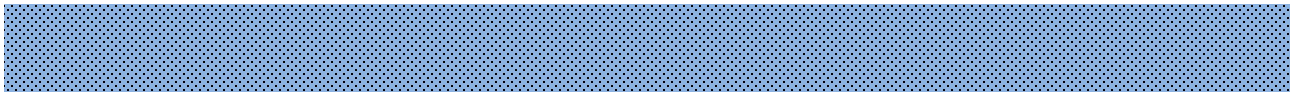
Cyclically during press:

0.5s k



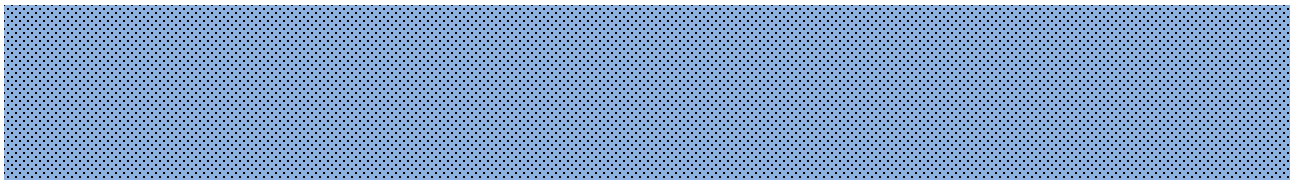
k

2 1s 1s k



k

2 1s 1s k



k

Icon/Status above + ! +

+ k

Icon/Status below + ! +

+ k

V1.1.0 k

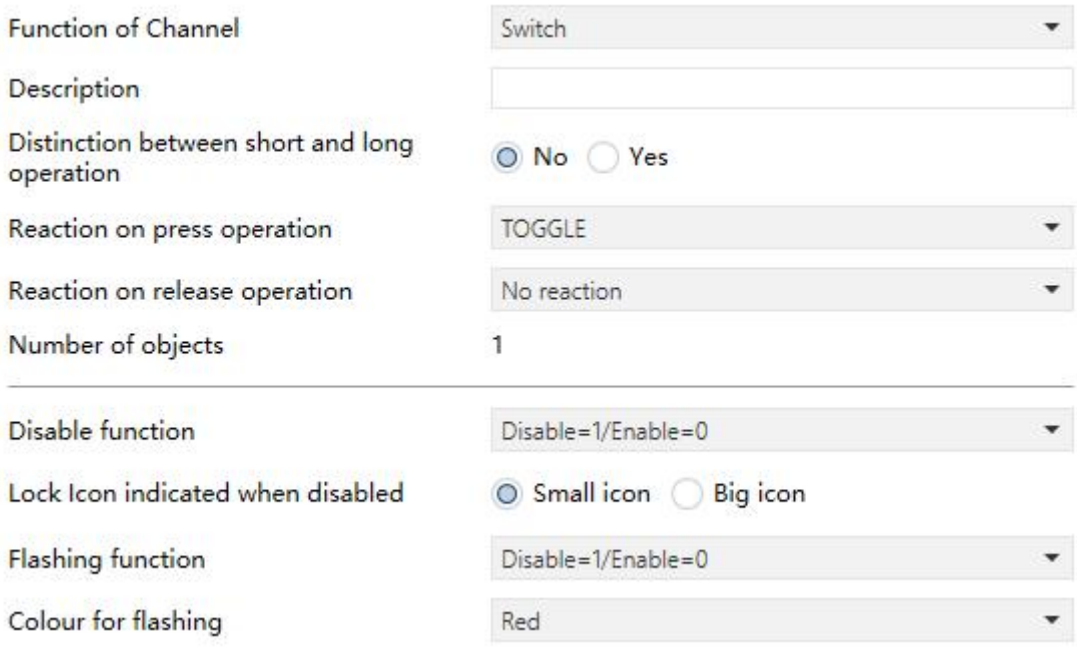
k

k

“Individual button” 5.6.1 5.6.2 k

k

“Rocker button” 5.6.3 5.6.4 k



5.6.1.1

12 k

k

/ k

“Yes” k

No reaction

ON

“Disable=1/Enable=0” “Disable=0/Enable=1” k

k

1 k

k

“Disable=1/Enable=0” “Disable=0/Enable=1” k

k

!

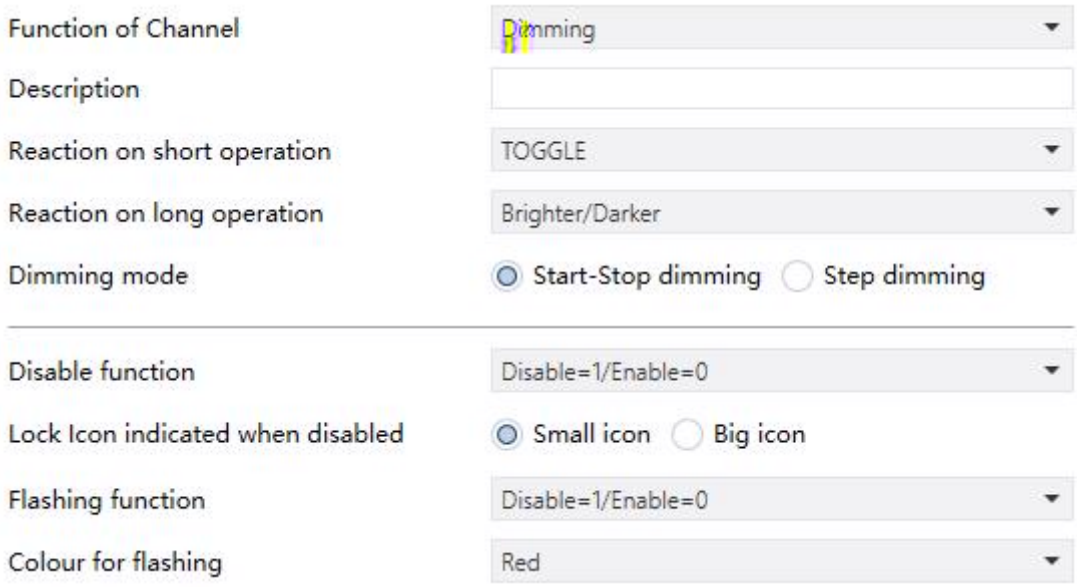
k

k

k

k

k



5.6.1.2

k

No reaction k

ON

OFF

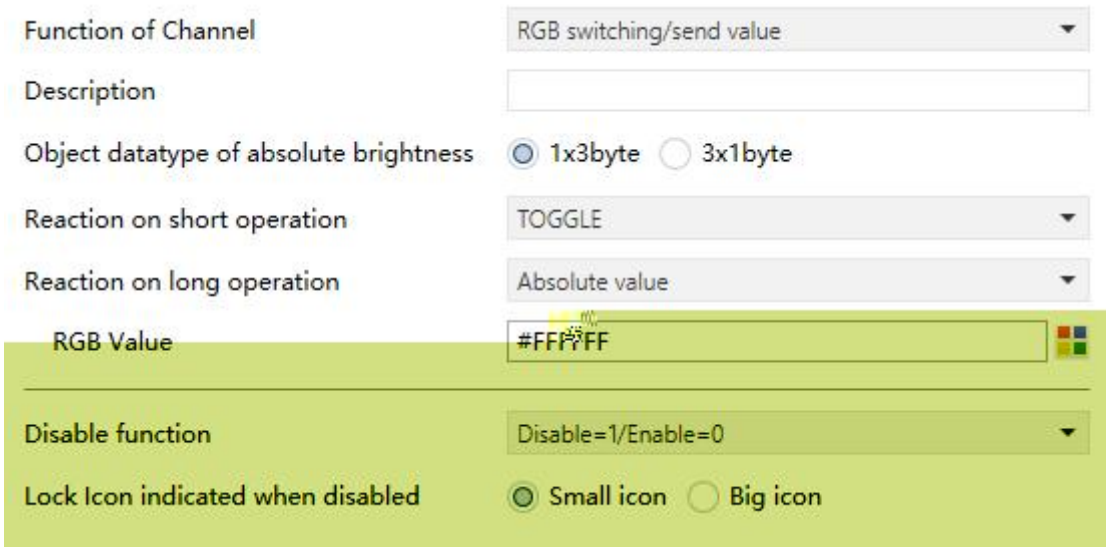
TOGGLE k Switch

0 k

k

No reaction

“Step dimming” k k



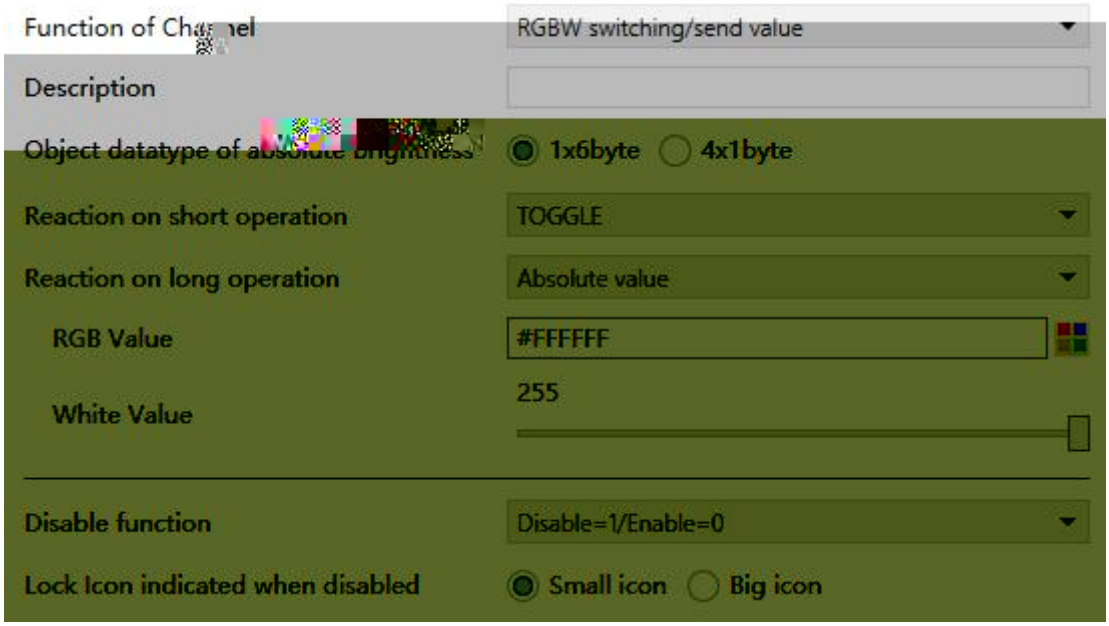
5.6.1.3 RGB /

k

/ k

“Absolute value” k

/ RGB k



5.6.1.4 RGBW /

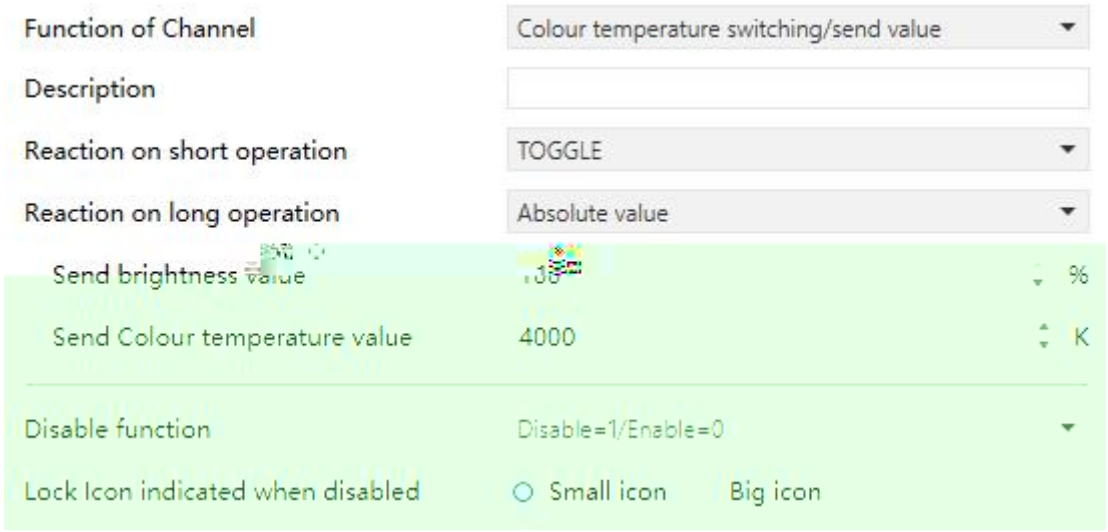
k

/ k

“Absolute value” k

RGB k

/ k



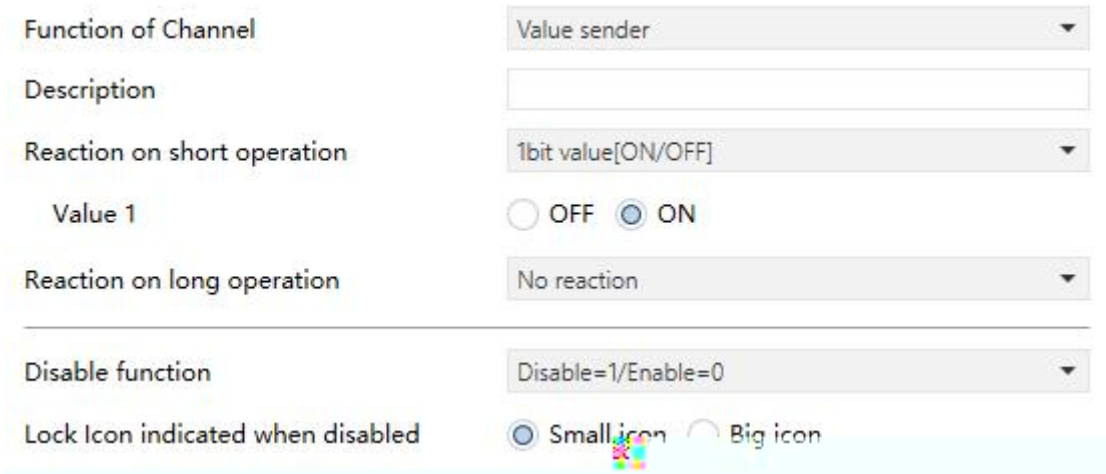
5.6.1.5 /

/ k

“Absolute value” k

/ k

/ k



5.6.1.6

/ k

“No reaction” k

/ 1/ 2 k k

5.6.1.7

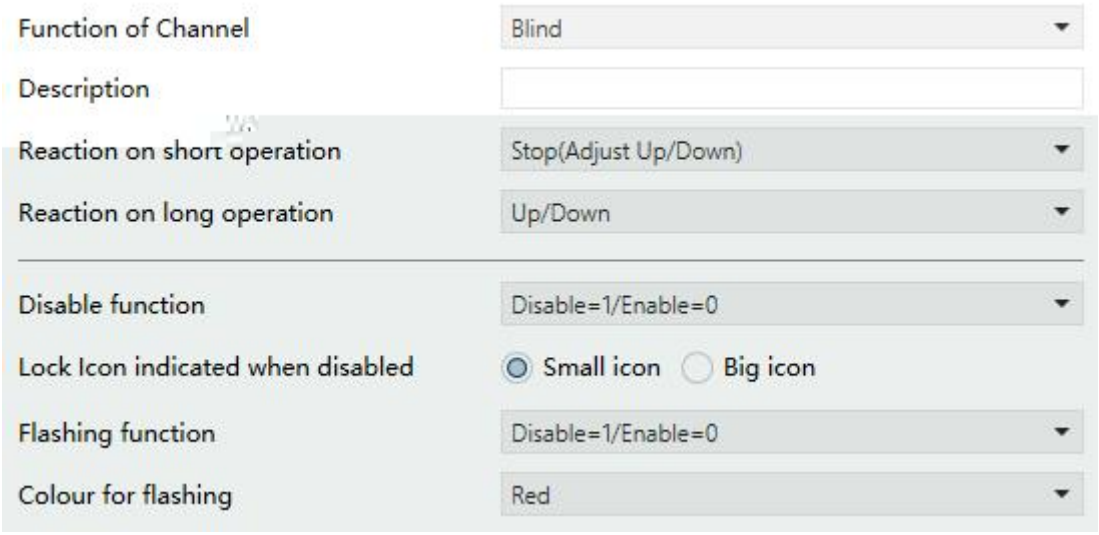
/ k

“No reaction” k

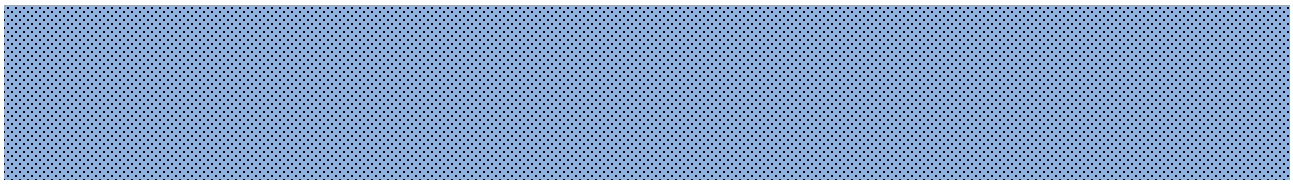
0~63

“Reaction on short operation” “Reaction on long operation” “No reaction” k

1 2 k



5.6.1.8



k

No action k

Up k

Down k

Up/Down / k

Up/Down, Blind 0 k

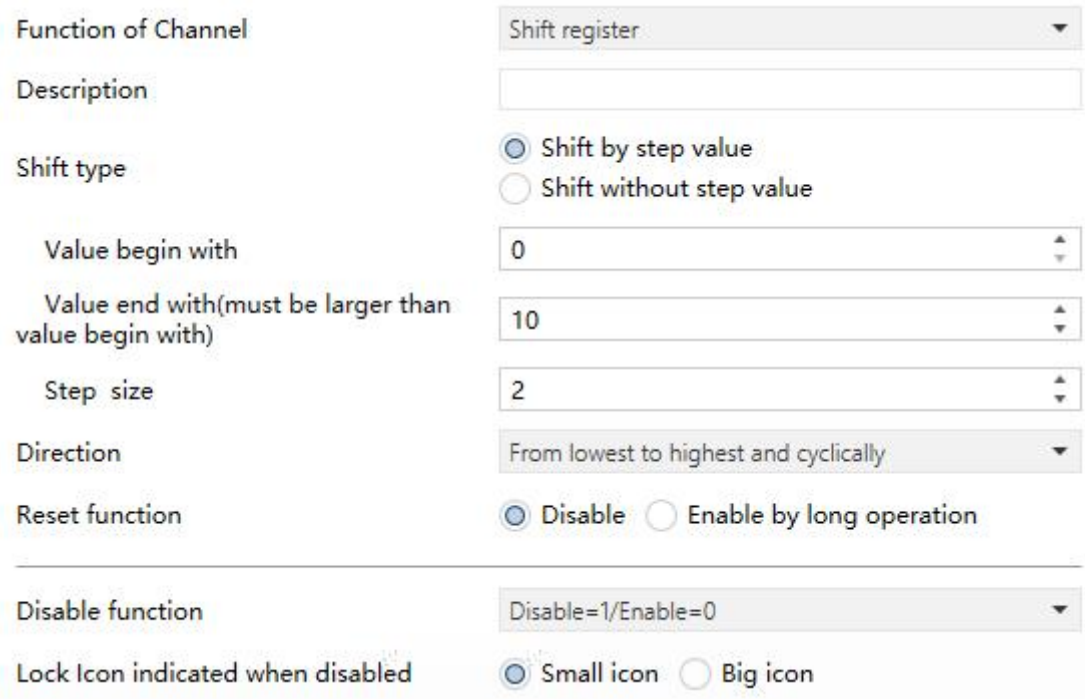
Stop (Adjust Up) k

Stop (Adjust Down) k

Stop (Adjust Up/Down) / k

Stop/Adjust Blind 0 / k

“Stop...” k k



5.6.1.9

k

Shift by step value

k

Shift without step value 10

k

k

k

k

k

k

k

10 k

“1byte unsigned value” ! “Scene number” “1byte percentage”

“HVAC mode”

k

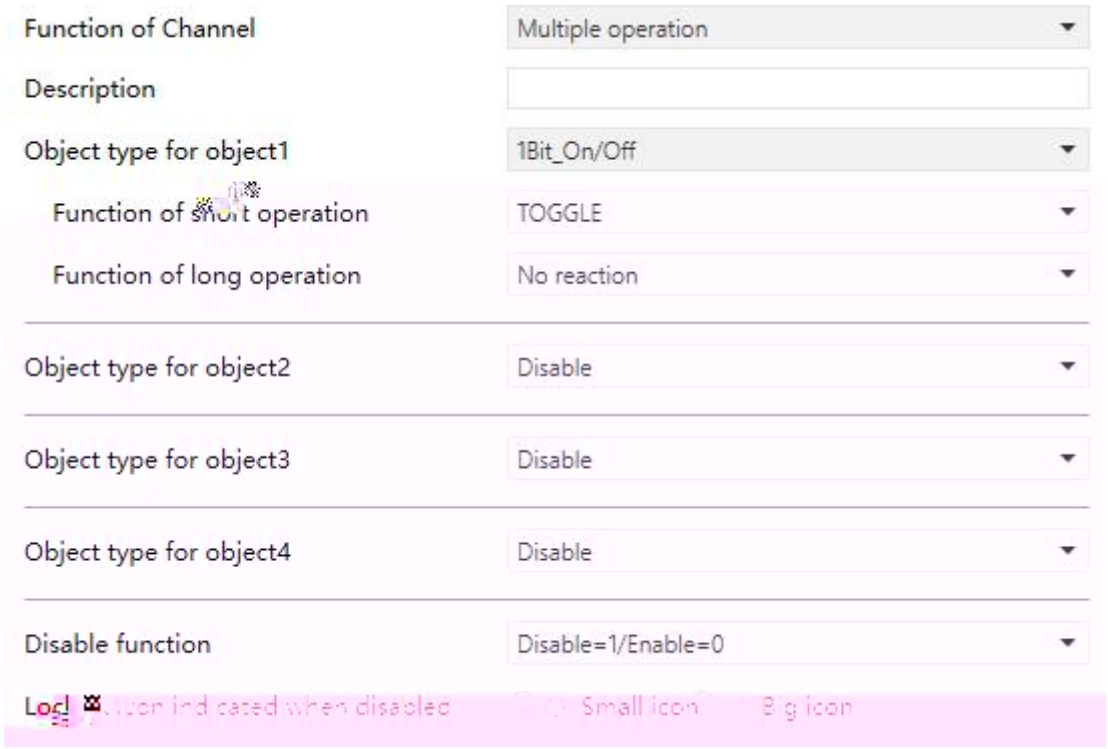
“1byte unsigned value”

“Scene number”

“HVAC mode”

“1byte percentage”

k


Function of Channel
Multiple operation
Description
Object type for object1
1Bit_On/Off
Function of short operation
TOGGLE
Function of long operation
No reaction
Object type for object2
Disable
Object type for object3
Disable
Object type for object4
Disable
Disable function
Disable=1/Enable=0

5.6.1.10

/ k

k

k

“1Bit_On/Off”

“1Bit_Up/Down”

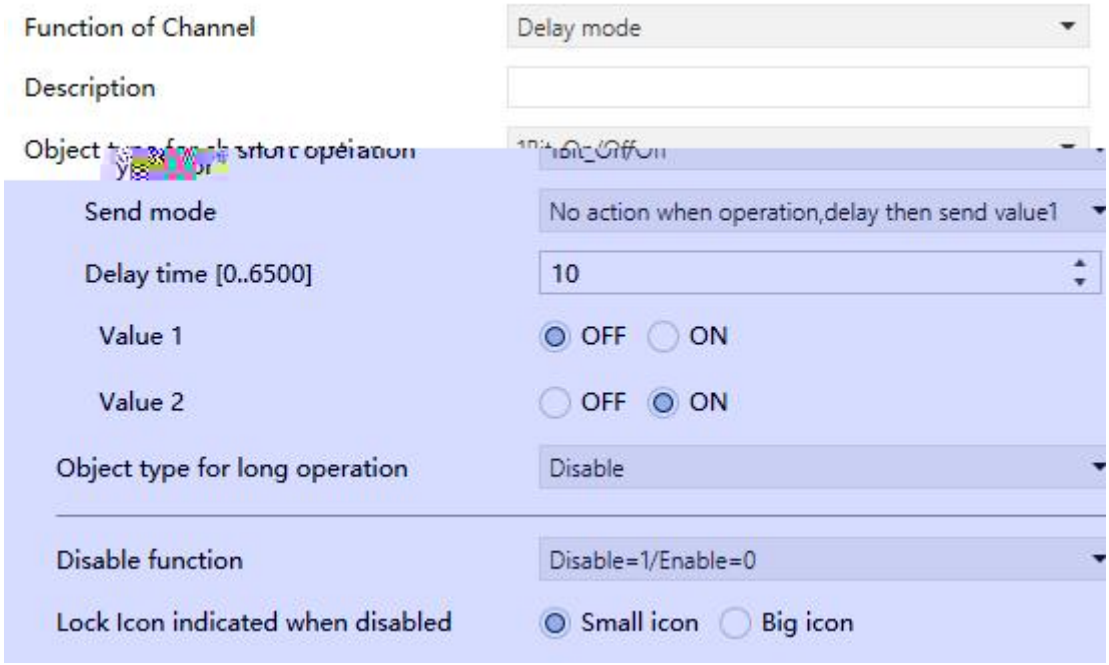
“1byte...” “14Byte_String”

“1byte...” “Send Value” k k

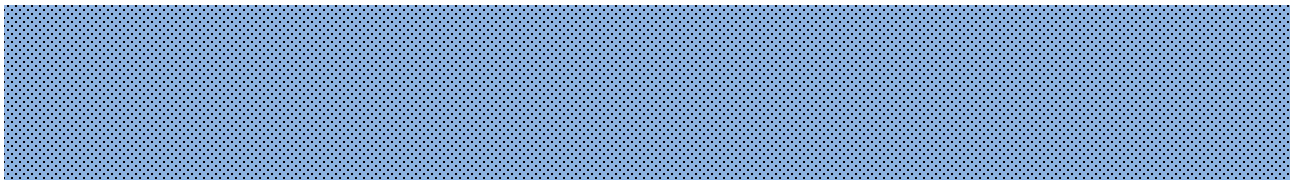
k

“14Byte_String” “Send Value” k

10 k


Function of Channel
Delay mode
Description
Send mode
No action when operation,delay then send value1
Delay time [0..6500]
10
Value 1
OFF
ON
Value 2
OFF
ON
Object type for long operation
Disable
Disable function
Disable=1/Enable=0
Lock Icon indicated when disabled
Small icon
Big icon

5.6.1.11



/ k

“Disable” k

- -

k

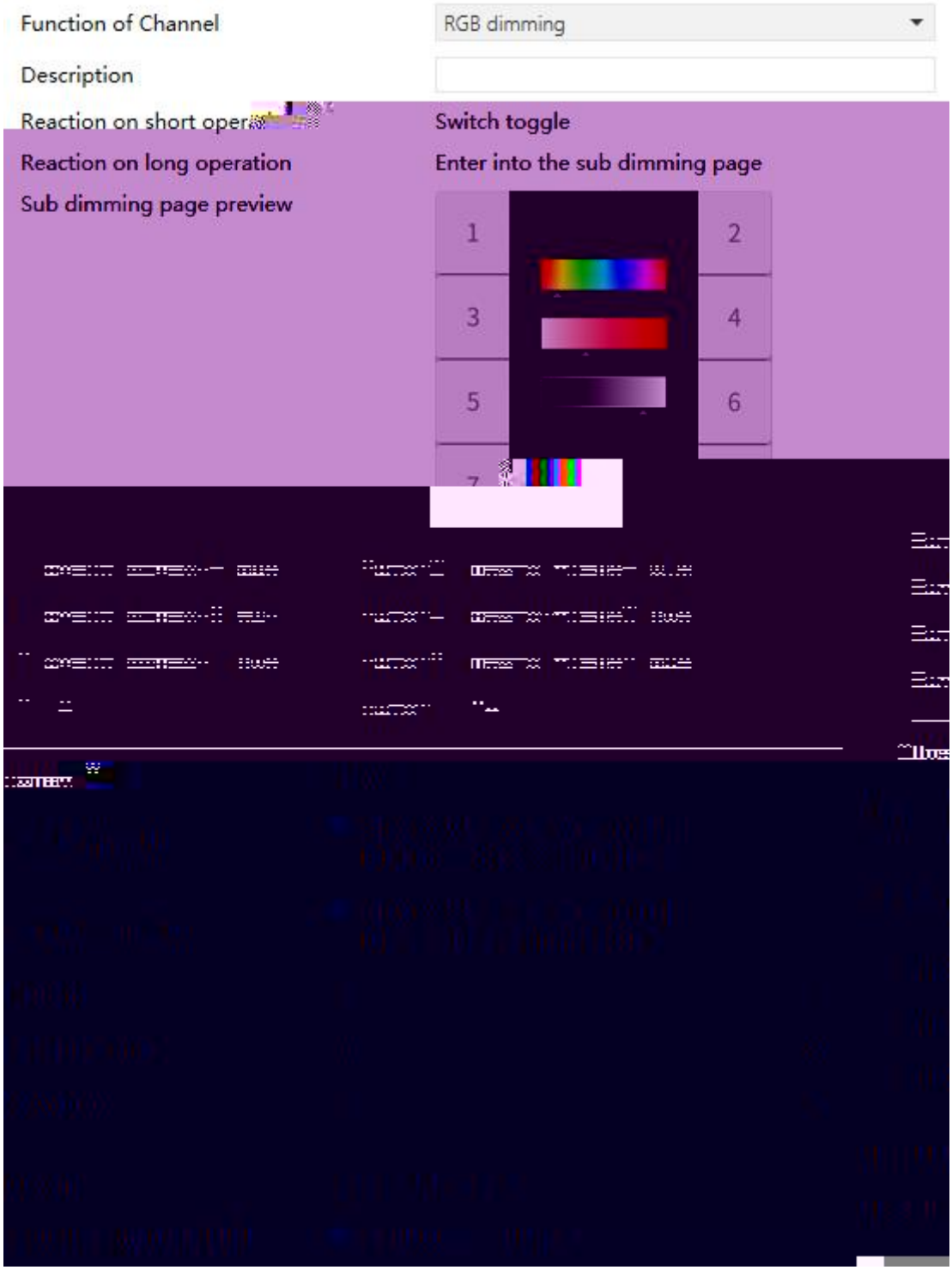
- -

k

0 1s k

- -

1/ 2 k k


Function of Channel
RGB dimming
Description
Reaction on short oper
Switch toggle
Reaction on long operation
Enter into the sub dimming page
Sub dimming page preview
1
2
3
4
5
6

5.6.1.12 RGB

/ k

k

k

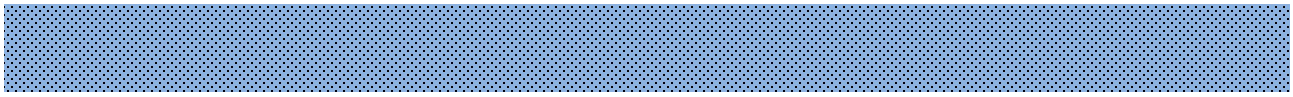
RGB k

0 0 k

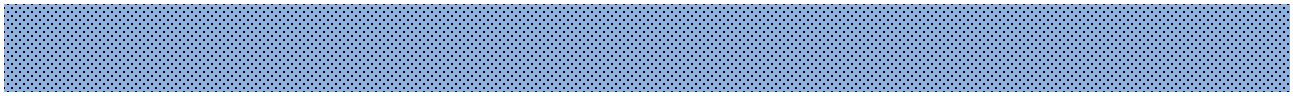
1 k

“Preset colour brightness value” k RGB k

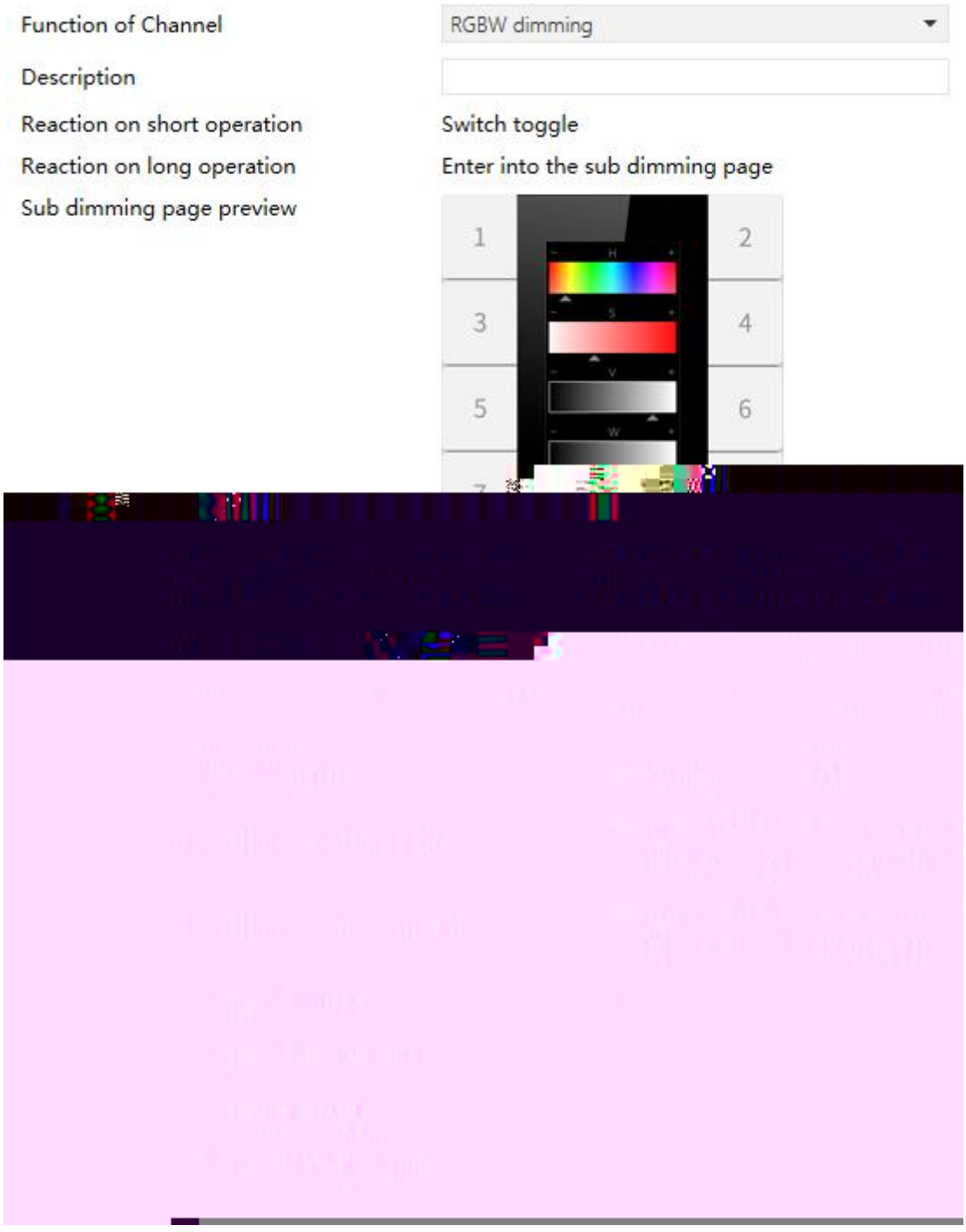
k



k



k


Function of Channel
RGBW dimming
Description
Reaction on short operation
Switch toggle
Reaction on long operation
Enter into the sub dimming page
Sub dimming page preview
1
2
3
4
5
6
H
S
V
W

5.6.1.13 RGBW

/ k

k

k

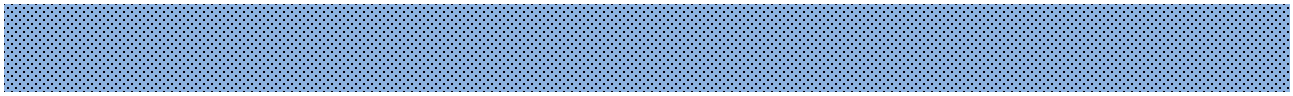
RGBW k

0 0 k

1 k

“Preset colour brightness value” k RGB k

“Preset colour brightness value” k k

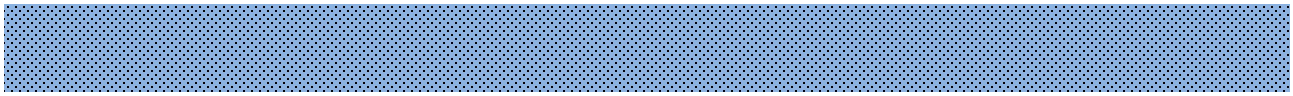


k

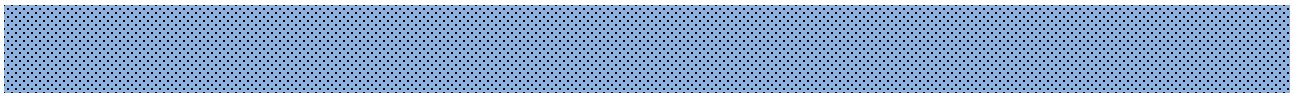
-

-

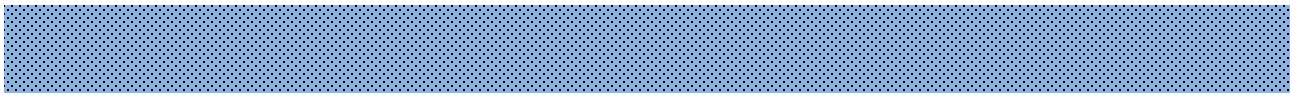
-



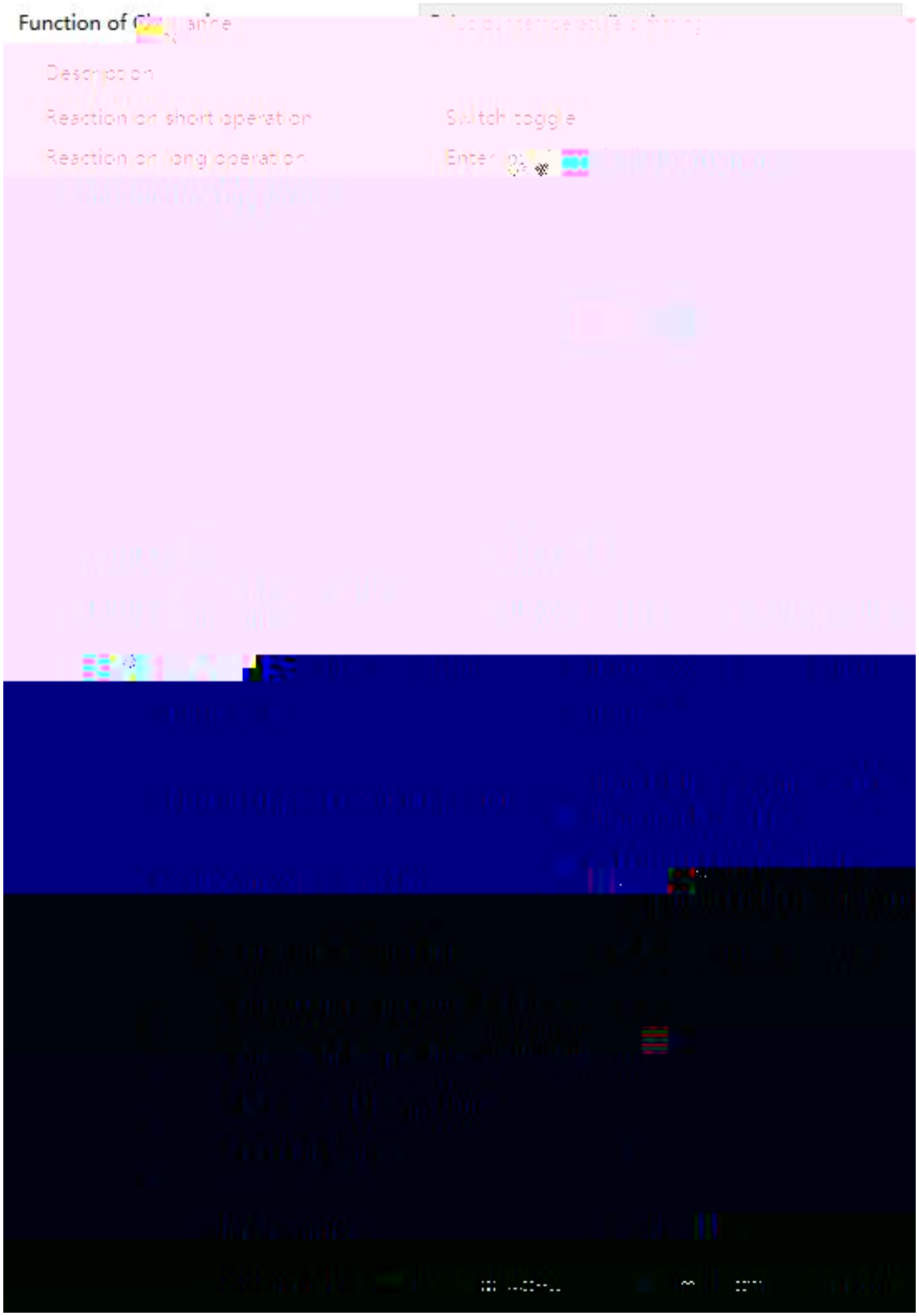
k



k



k


Function of Channe
Description
Reaction on short operation
Switch toggle
Reaction on long operation
Enter op

5.6.1.14

/ k

k

k

k

“1byte relative percentage value” 0/1-10V

ETS 0~100%

“2byte absolute value” KNX

ETS k

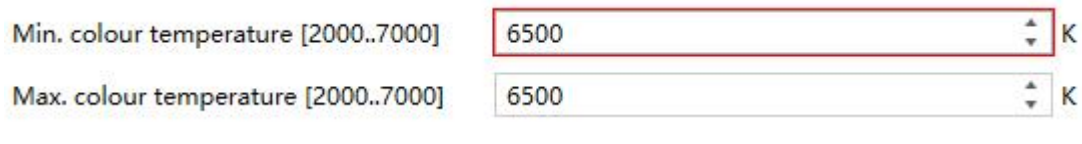
0 0 k

1 k

“Preset colour brightness value...” k k

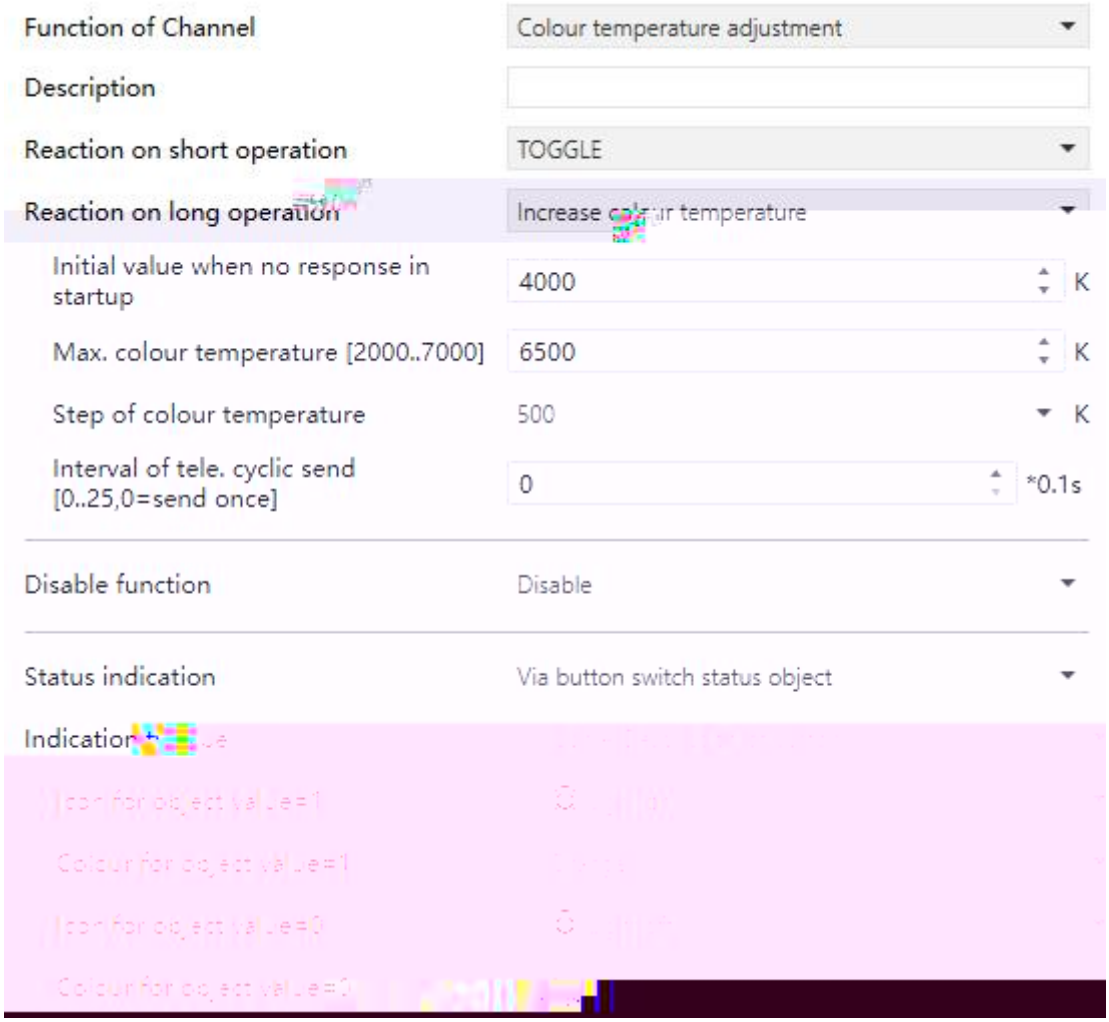
“Preset brightness value+Colour temperature” k k

k



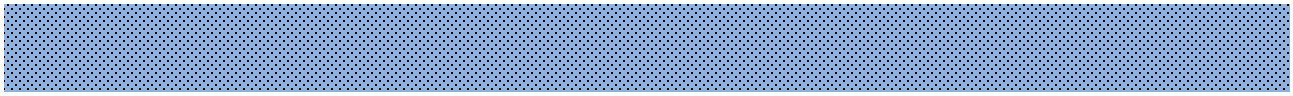
k

k

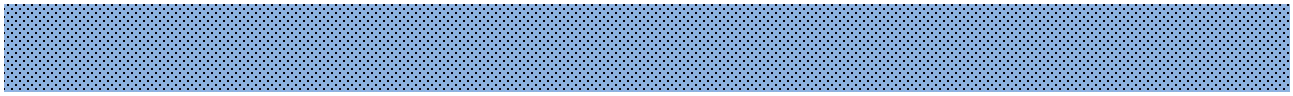

Function of Channel
Colour temperature adjustment
Description
Reaction on short operation
TOGGLE
Reaction on long operation
Increase colour temperature
Initial value when no response in startup
4000
K
Max. colour temperature [2000..7000]
6500
K
Step of colour temperature
500
K
Interval of tele. cyclic send [0..25,0=send once]
0
*0.1s
Disable function
Disable
Status indication
Via button switch status object

5.6.1.15

k

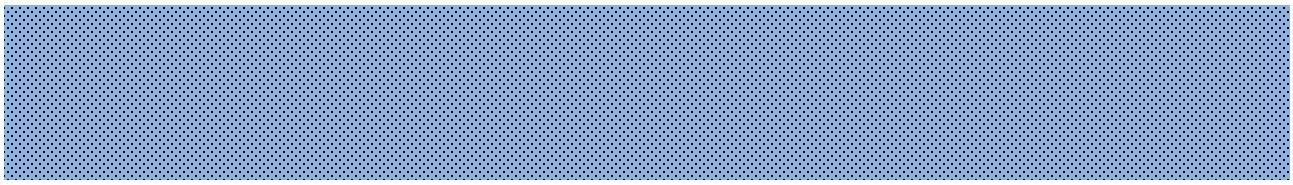


2byte k



eÑñu Ÿ P rTG0~Đ

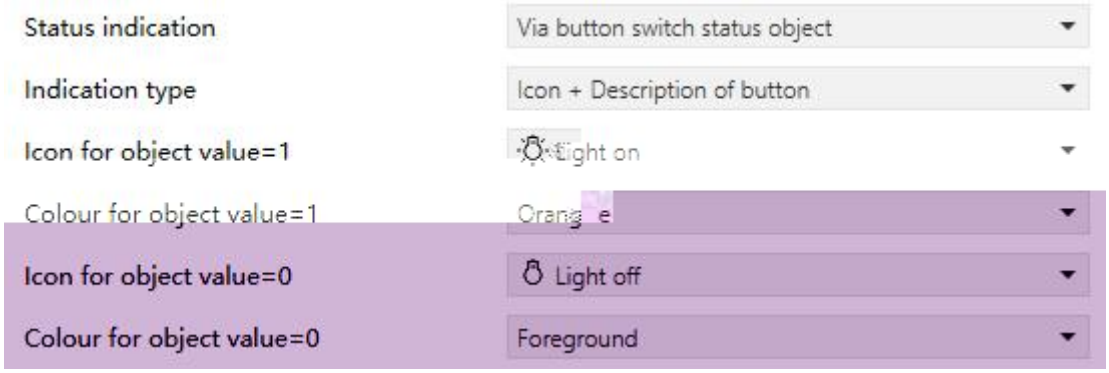
k



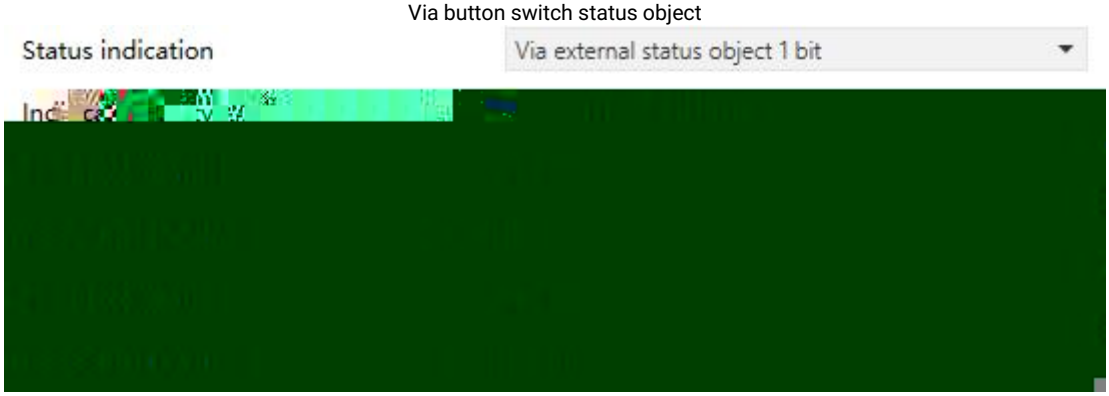
/ k

”Increase colour

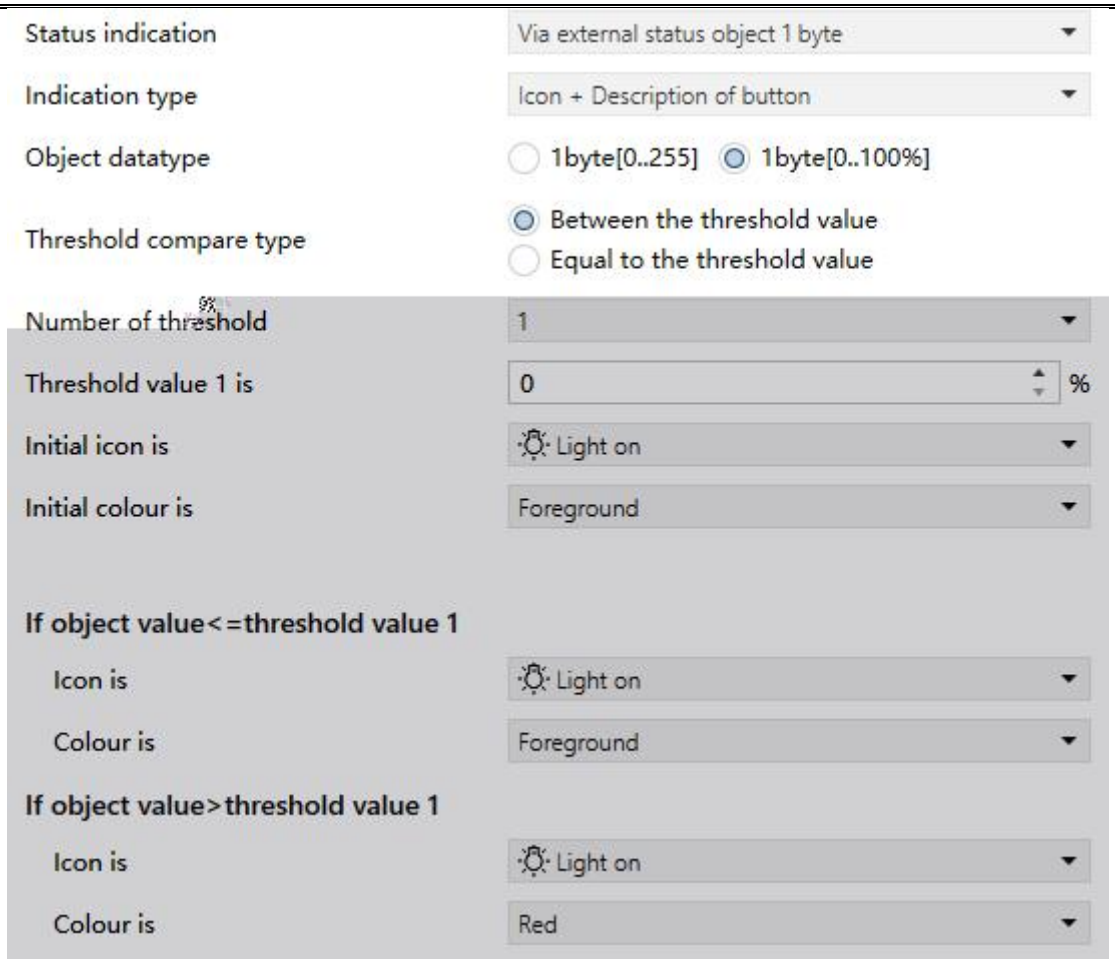
k



Via button switch status object



Via external status object 1 bit



Via external status object 1 byte

Always

5.6.2

k

! ! RGB / ! RGBW / ! /

! RGB ! RGBW ! ! k

! ! ! ! ! k

Via button switch status object

Via external status object 1 bit 1bit

Via external status object 1 byte 1byte

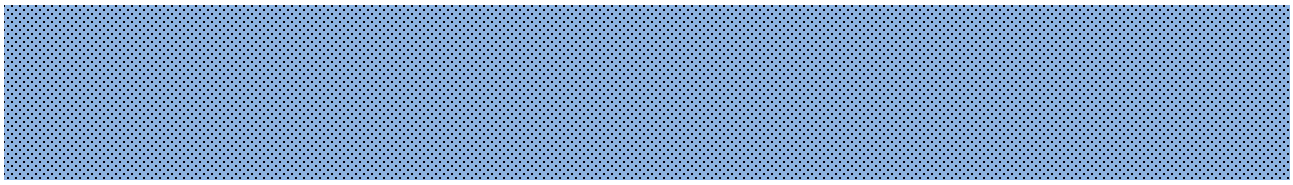
Always k

Indicate button press 2 0.5s 0.5s

k

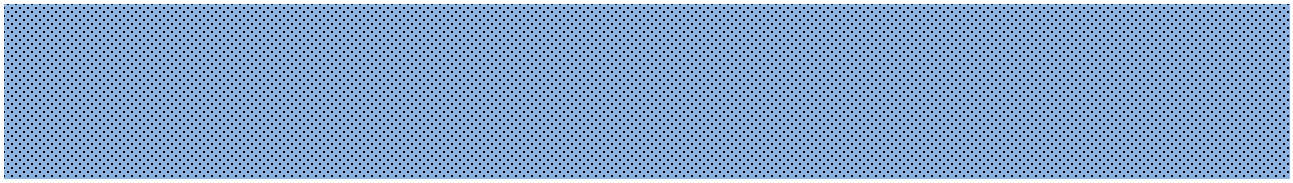
k

“Description” k

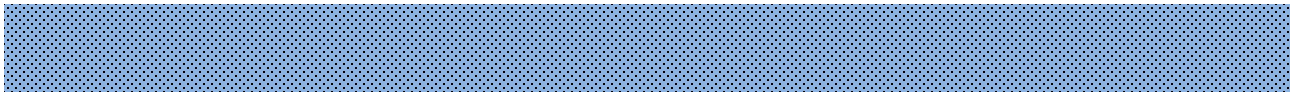


“Icon...” k 1 0 k

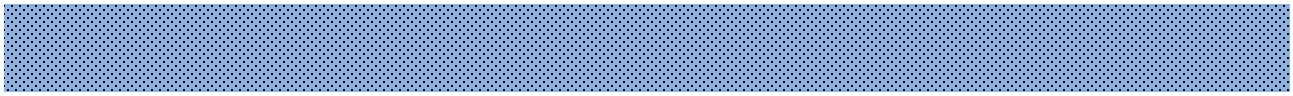
7 k



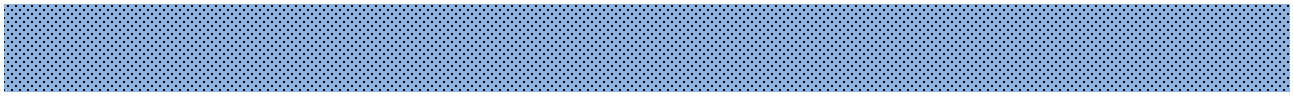
1 0 k



k



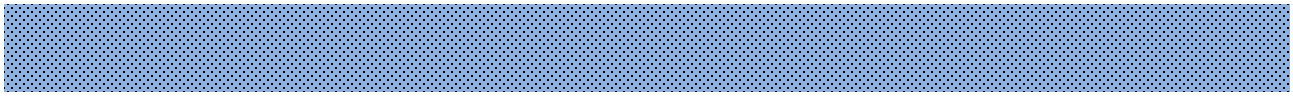
k



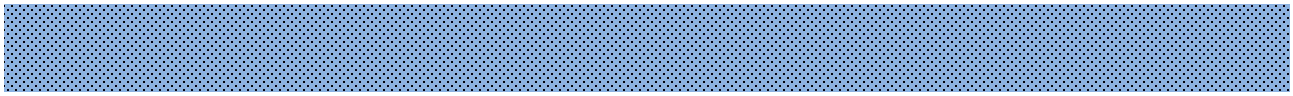
k

“Between the threshold value”

“Equal to the threshold value”

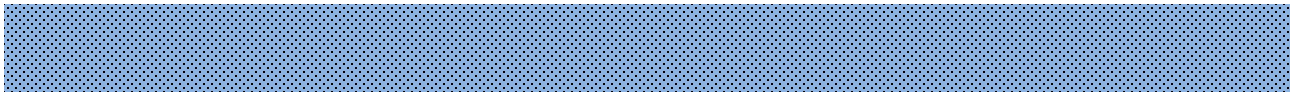


k

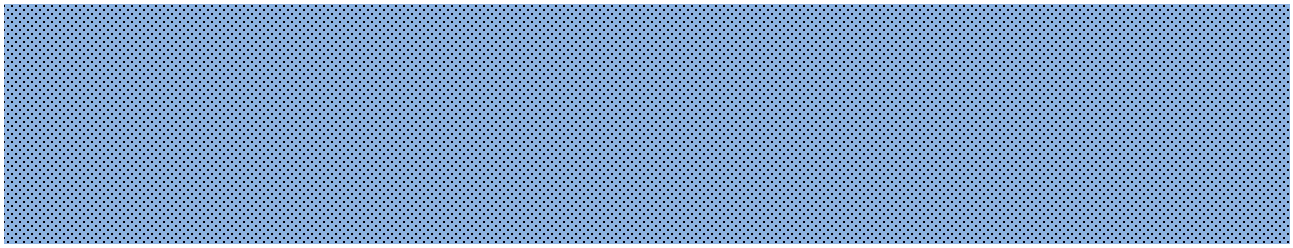


k

7 k



k

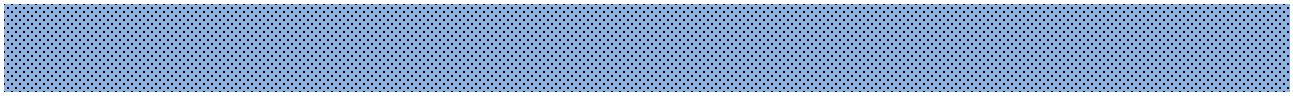


k

“Icon...” k k

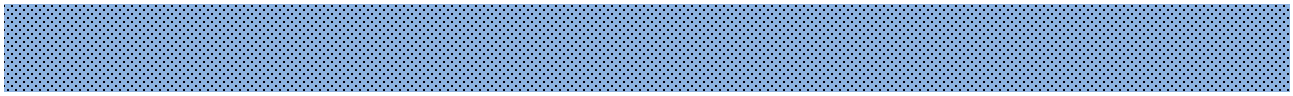
7 k

k

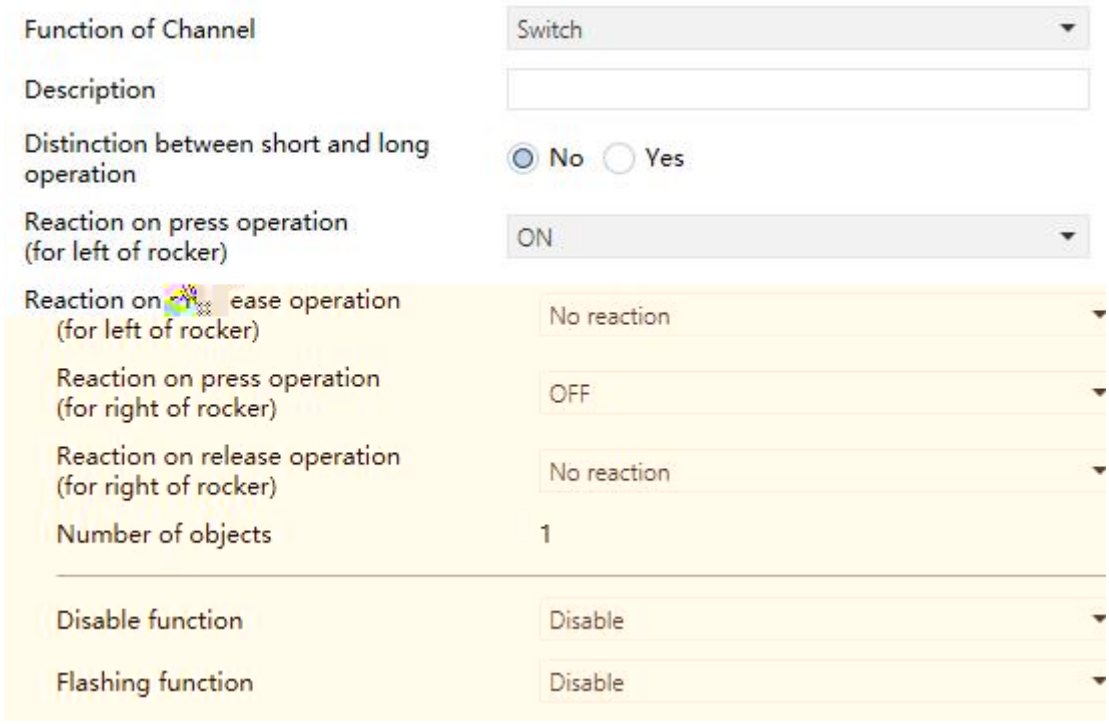


Icon... k k

7 k



k


Function of Channel
Switch
Description
Distinction between short and long operation
No
Yes
Reaction on press operation (for left of rocker)
ON
Reaction on release operation (for left of rocker)
No reaction
Reaction on press operation (for right of rocker)
OFF
Reaction on release operation (for right of rocker)
No reaction
Number of objects
1
Disable function
Disable
Flashing function
Disable

5.6.3.1

12 k

k

/ k

/ / / k

k

No reaction k

ON

OFF

TOGGLE

k Switch

0 k

“Reaction on short/press operation” “Reaction on long/release operation” “No reaction”

k 1 2 k

/ k

“Disable=1/Enable=0” “Disable=0/Enable=1” k

k

1 k

k

“Disable=1/Enable=0” “Disable=0/Enable=1” k

k

!

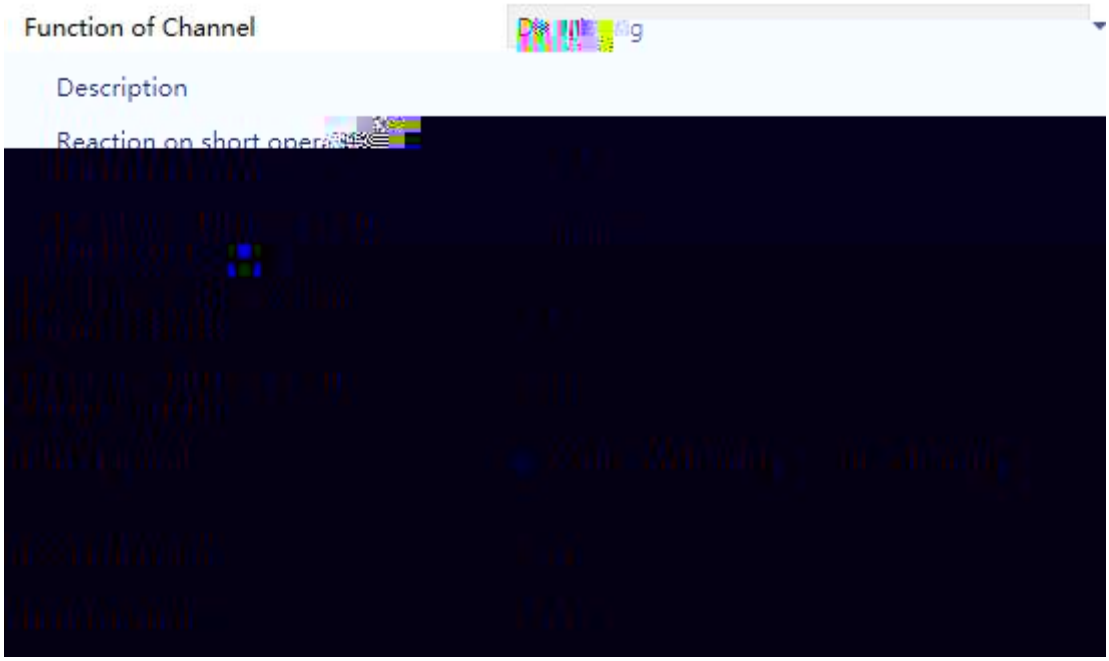
k

k

k

k

k



5.6.3.2

/ k

No reaction k

ON

OFF

TOGGLE k

/

k

No reaction k

Brighter k

Darker

Brighter/darker k

k

k

k

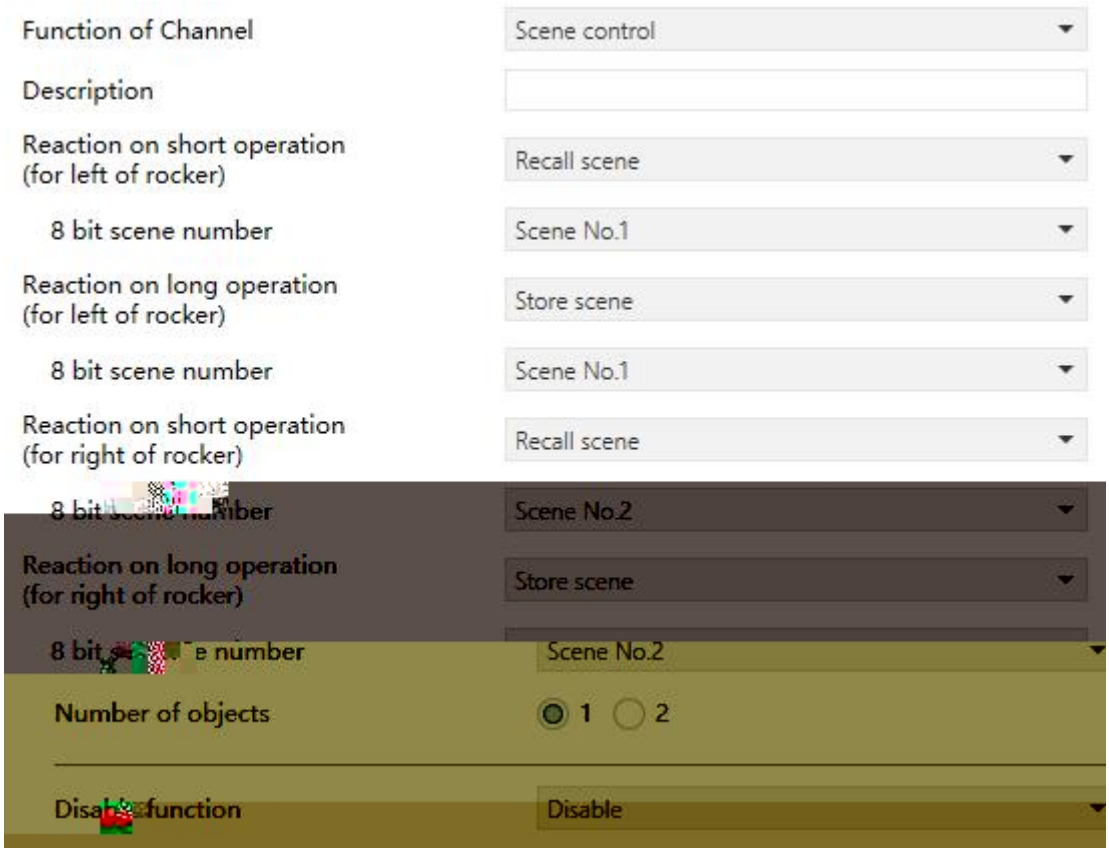
Start-stop dimming

k k

Steps dimming k

“Step dimming” k

“Step dimming” k k



5.6.3.3

/ /

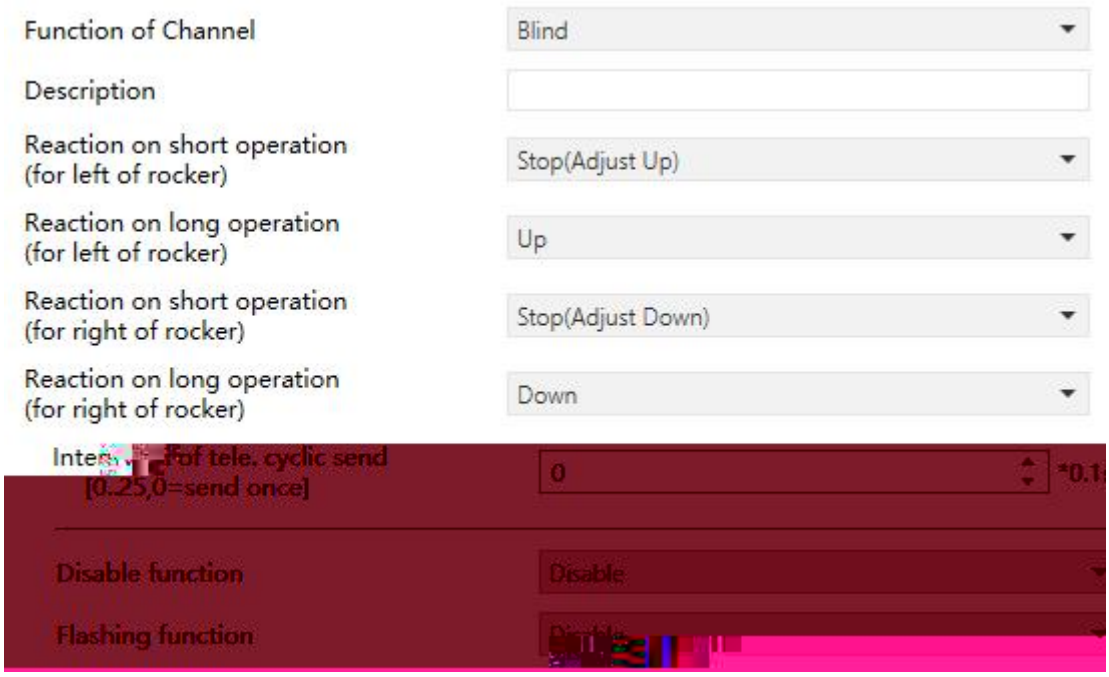
k

“No reaction” k

0~63

“Reaction on short operation” “Reaction on long operation” “No reaction” k

1 2 k



5.6.3.4

/ k

No action k

Up k

Down k

Up/Down / k

Up/Down, Blind 0 k

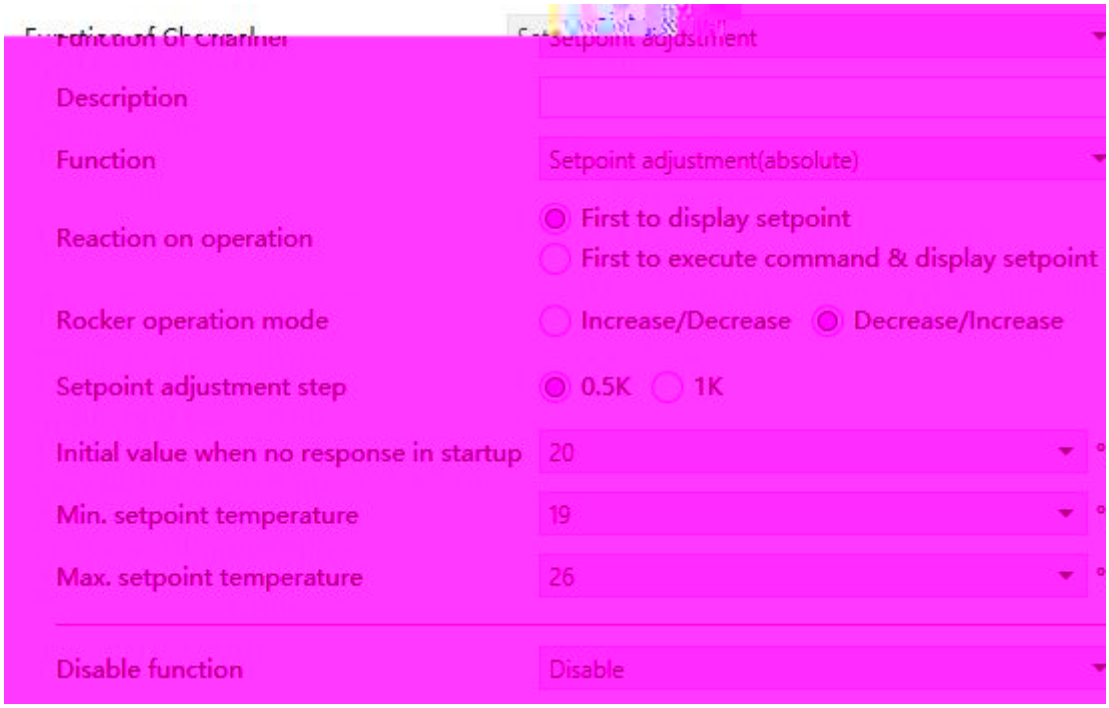
Stop (Adjust Up) k

Stop (Adjust Down) k

Stop (Adjust Up/Down) / k

Stop/Adjust Blind 0 / k

k



5.6.3.5

k

Setpoint adjustment(absolute)

Offset Increase/Decrease(relative) 1bit

Offset setpoint adjustment(relative) k

k

k

Increase/Decrease

Decrease/Increase k

“Setpoint adjustment (absolute)” “Offset setpoint adjustment (relative)”

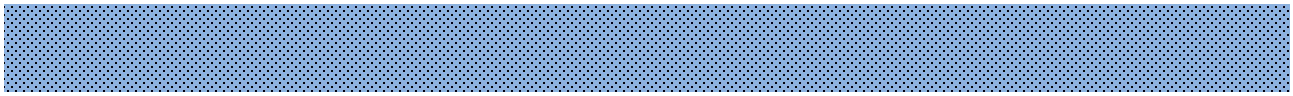
k k

21°C 0.5 21.5°C

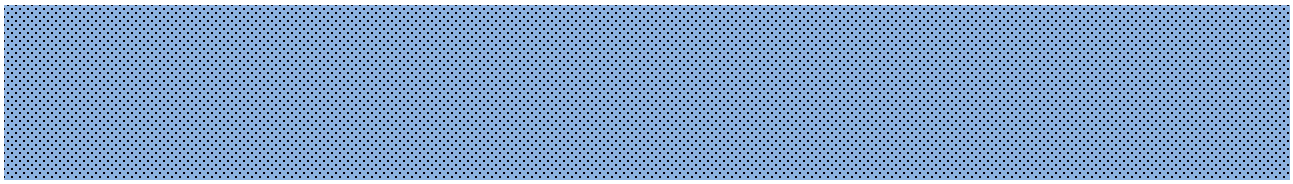
21°C 0.5 20.5°C

1K 0K 1K

-1K -2K k



k



k

k

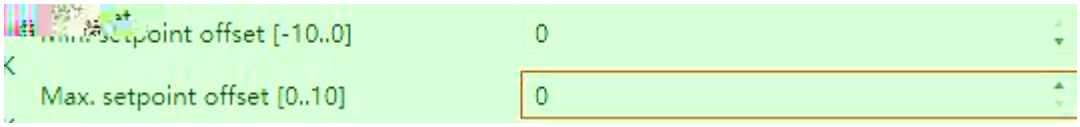
k

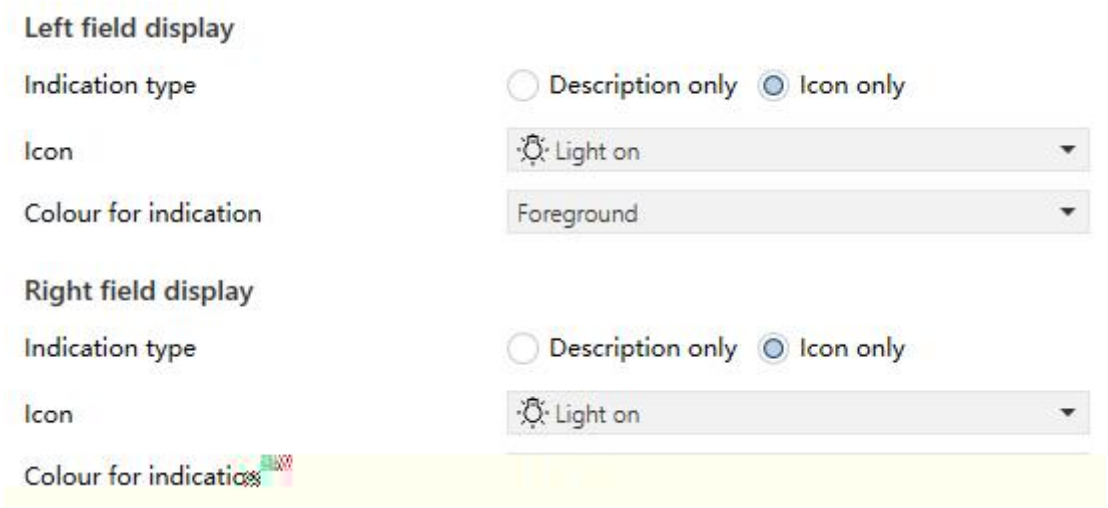
k

( )

k

k





5.6.4.1 /

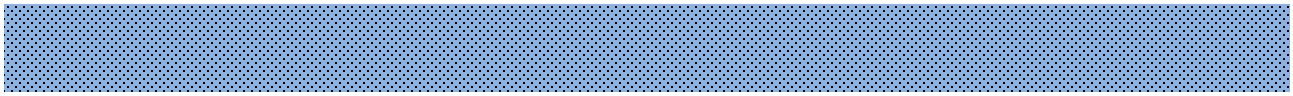
/ k

/ 12 k

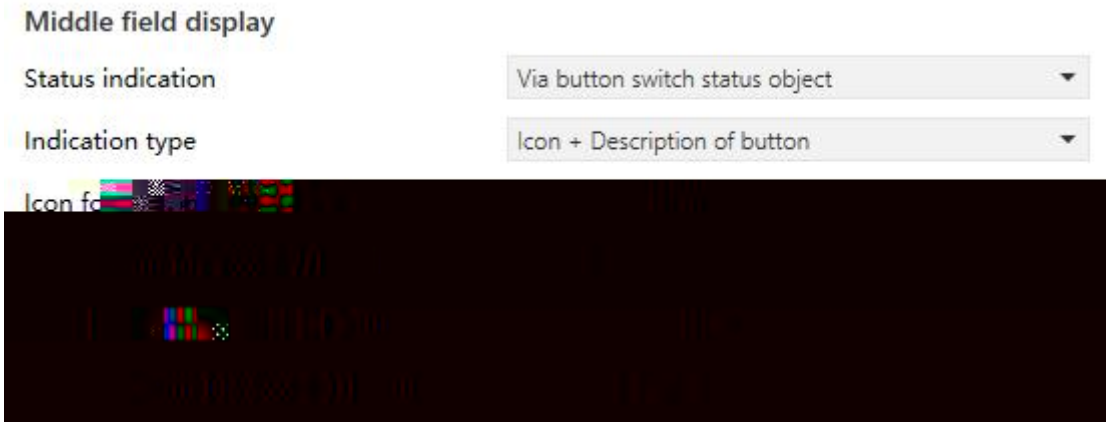
k

“Icon only” k k

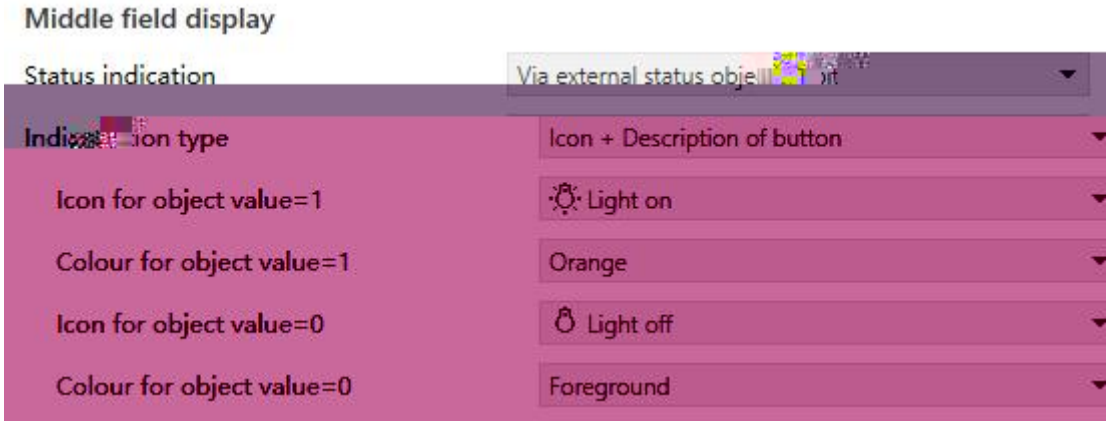
7 k



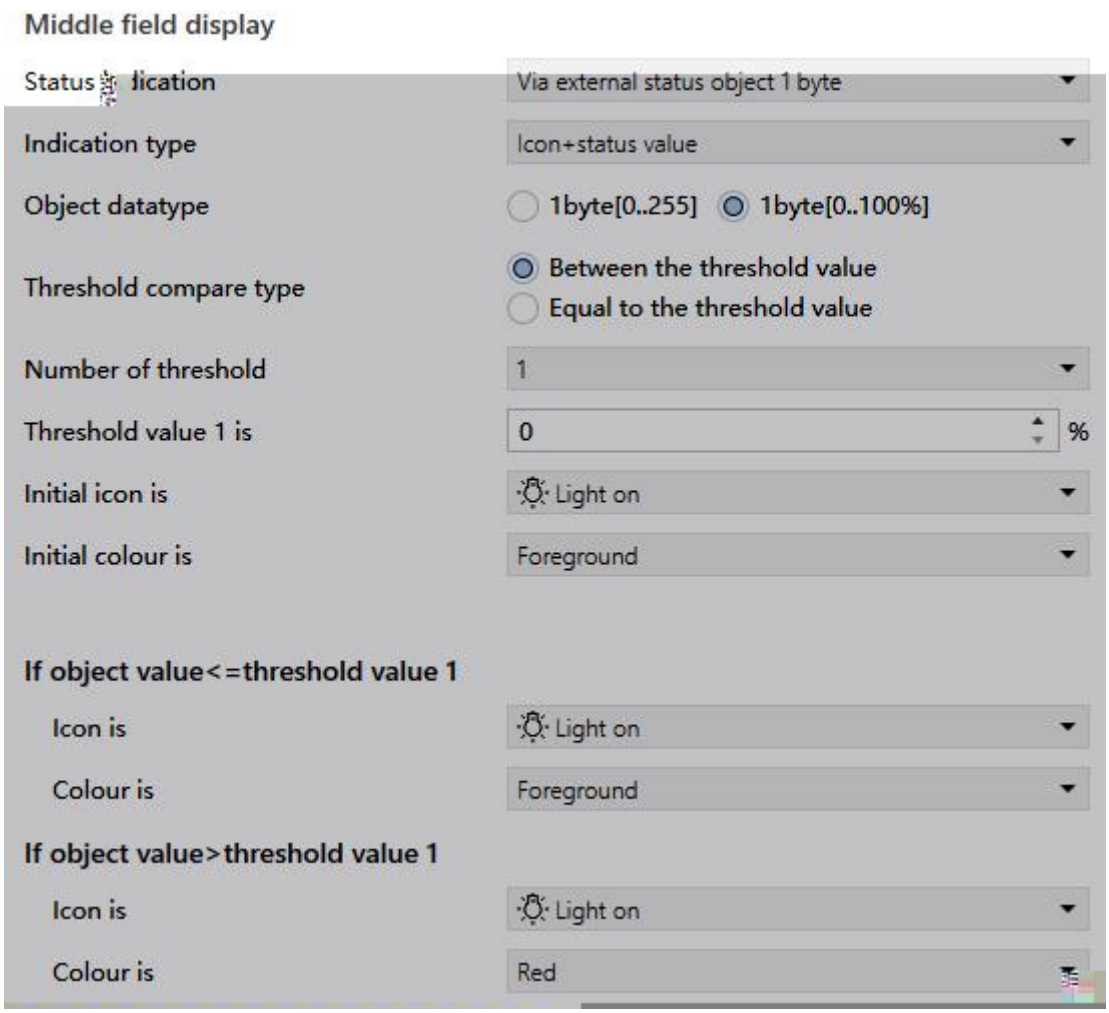
k



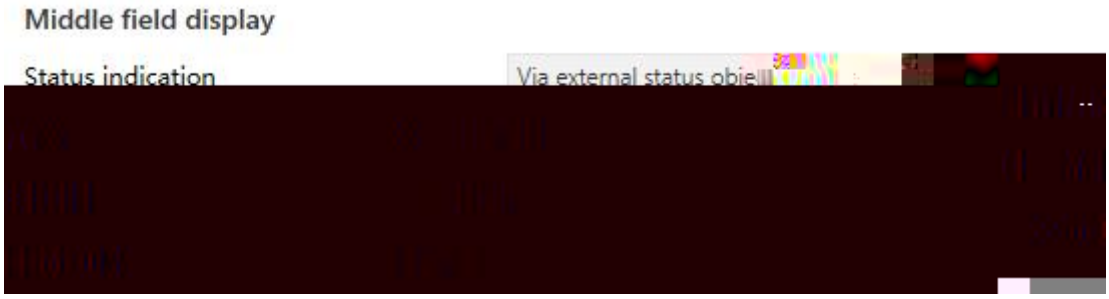
Via button switch status object



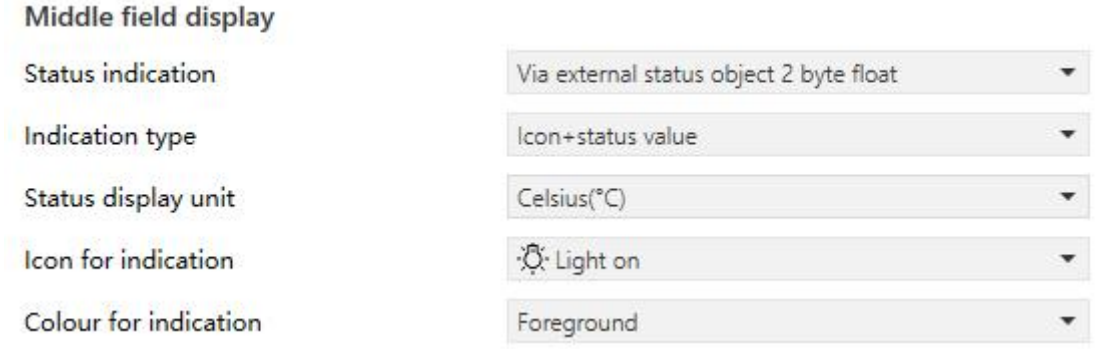
Via external status object 1 bit



Via external status object 1 byte



Via external status object 2 byte

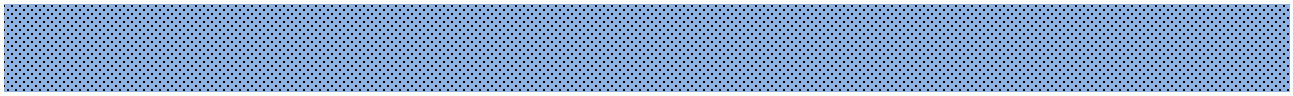


Via external status object 2 byte float

Via external status object 14 byte

Always

5.6.4.2



k

Via button switch status object

Via external status object 1 bit 1bit

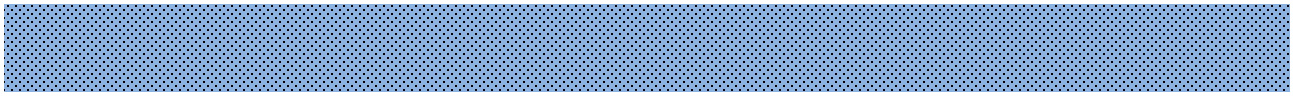
Via external status object 1 byte 1byte

Via external status object 2 byte

Via external status object 2 byte float

Via external status object 14 byte

Always k



k

“Via button switch status object”！“Via external status object 1 bit”！“Via external status object 1 byte” “Always” “Status value”！“...status value” ”Via external status object 14 byte” “Status value” “Status value”！“...status value” “Int.temp + status value” “Via button switch status object”！“Via external status object 1 bit” “Always” “Status value”！“...status value” “Via external status object 2 byte” ”Via external

status object 14 byte” “Status value”

“Int.temp + status value” “Via button switch status

object” !“Via external status object 1 bit” “Always” “Status value” !

“...status value”

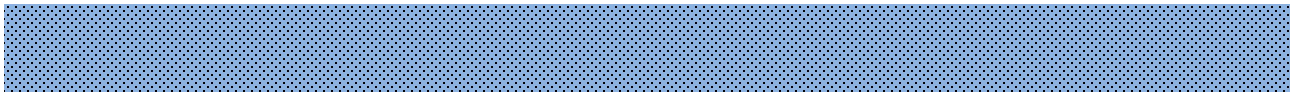
“Via external status object 1 bit” “Always”

“Status value” !“...status value” “Via external status object 2 byte

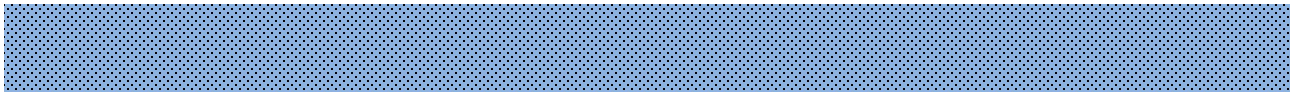
float” k

J 0

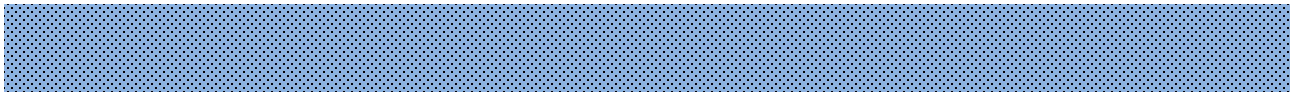
“Icon...” k 1 0 k



k



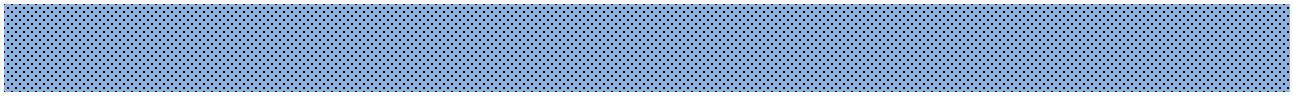
k



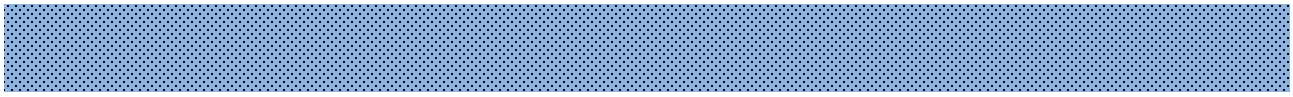
k

“Between the threshold value”

“Equal to the threshold value”

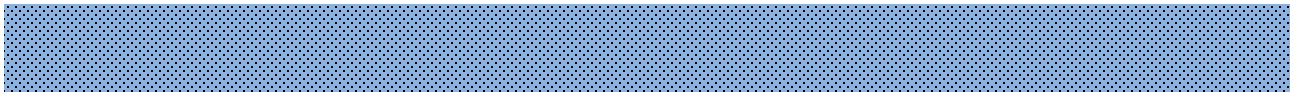


k

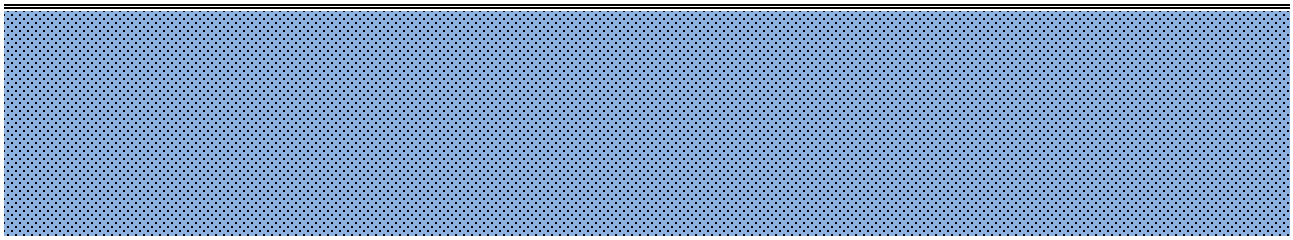


k

7 k



k

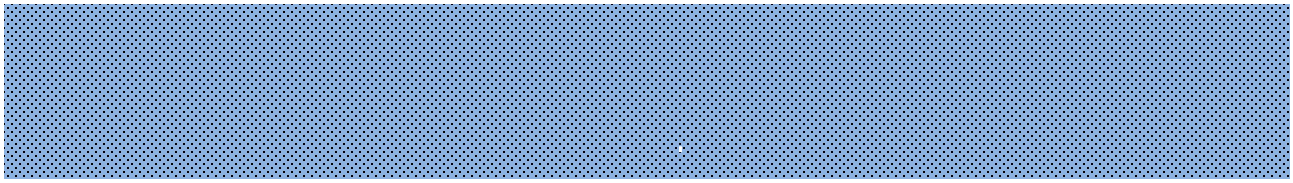


k

“Icon...” k k

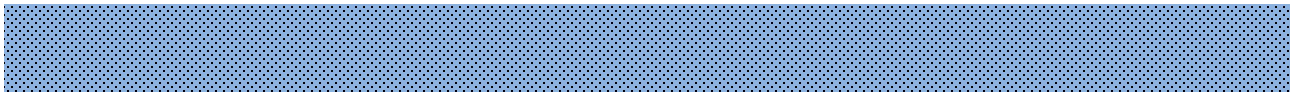
7 k

k



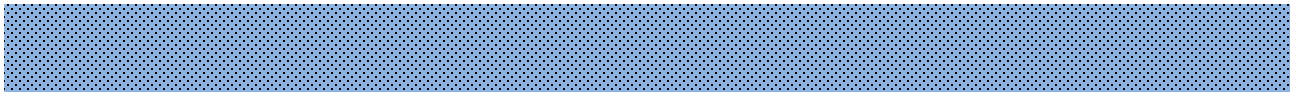
DPT 9.001 temperature k

k

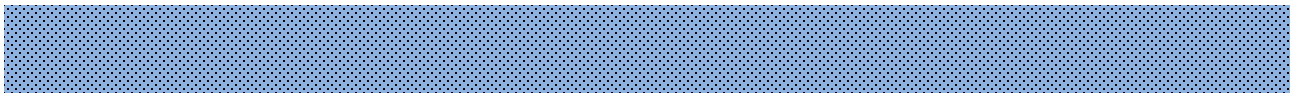


Icon... k k

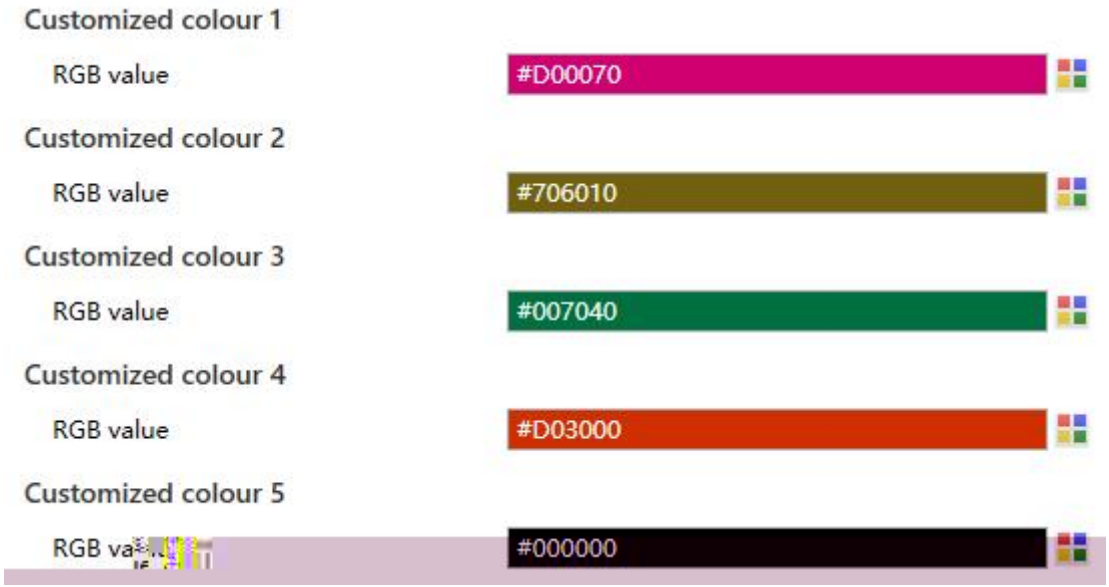
7 k



k

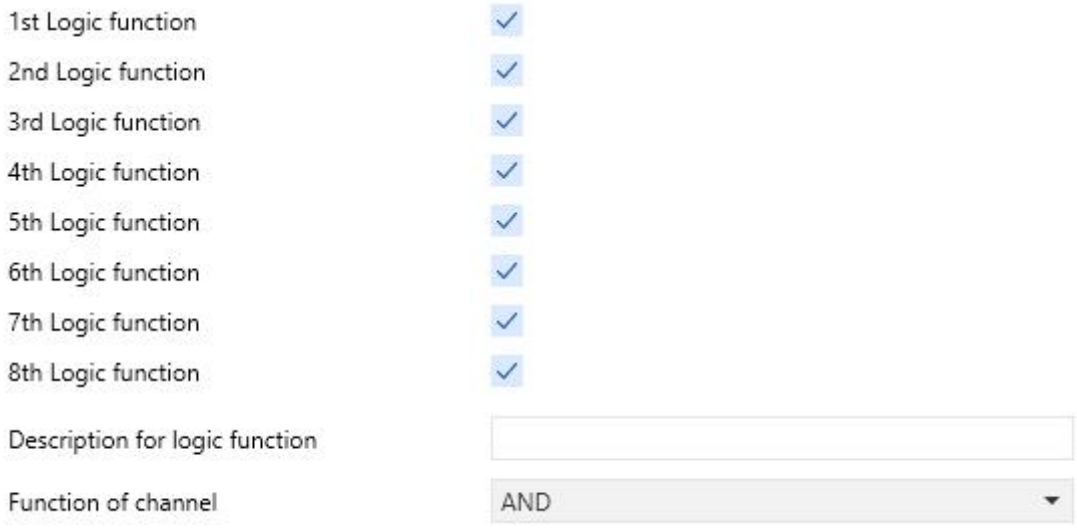


k



5.6.6 “Customized colour”

5 k



5.7 “Logic function setting”

k 8 k

k 30 k

k

AND/OR/XOR k

5.7.1 “AND/OR/XOR”

input x k

Disconnected

Normal

Inverted k k

input x k

k

No

Yes k

k

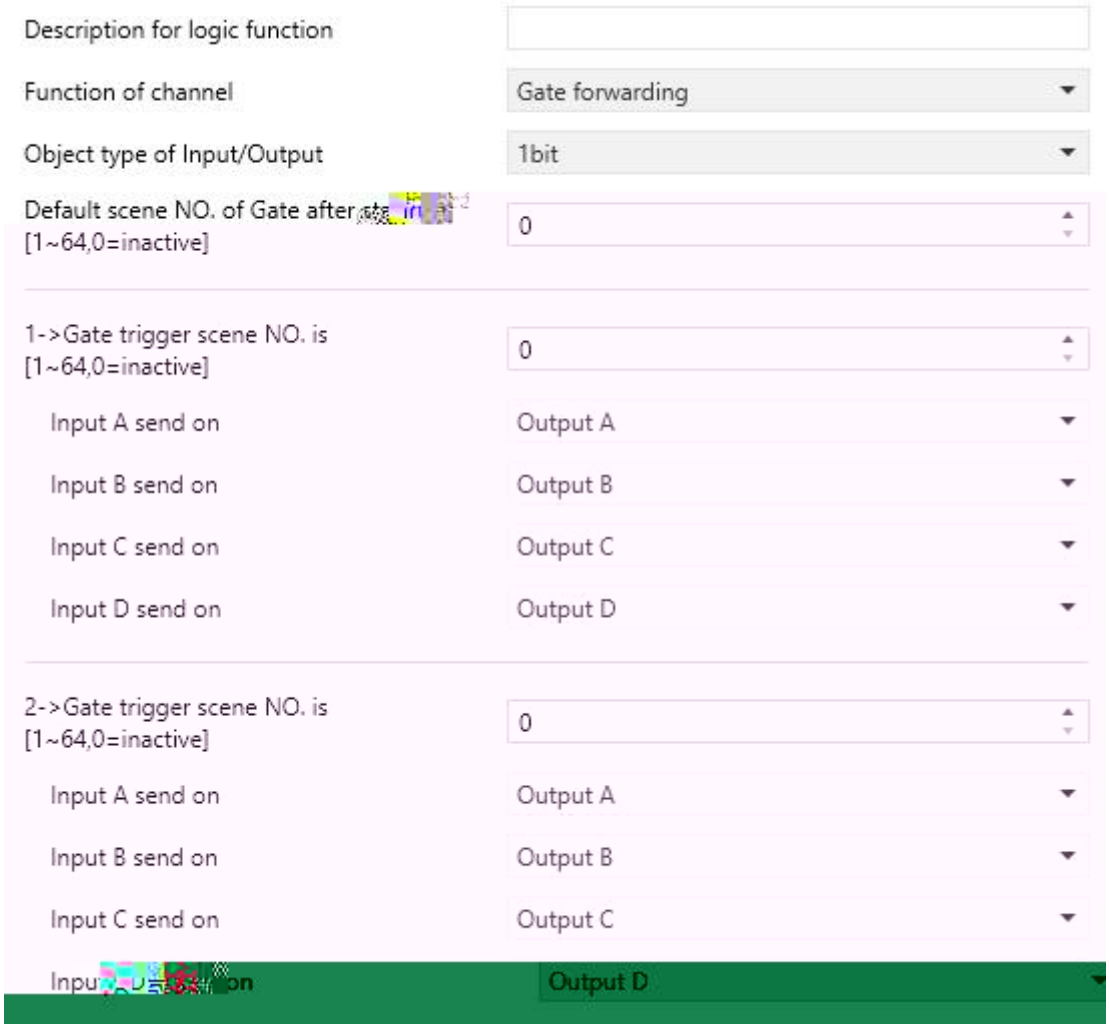
k

Receiving a new telegram

Every change of output object k

k

k Base × Factor Base “None” k



5.7.2 “Gate forwarding”

/ k

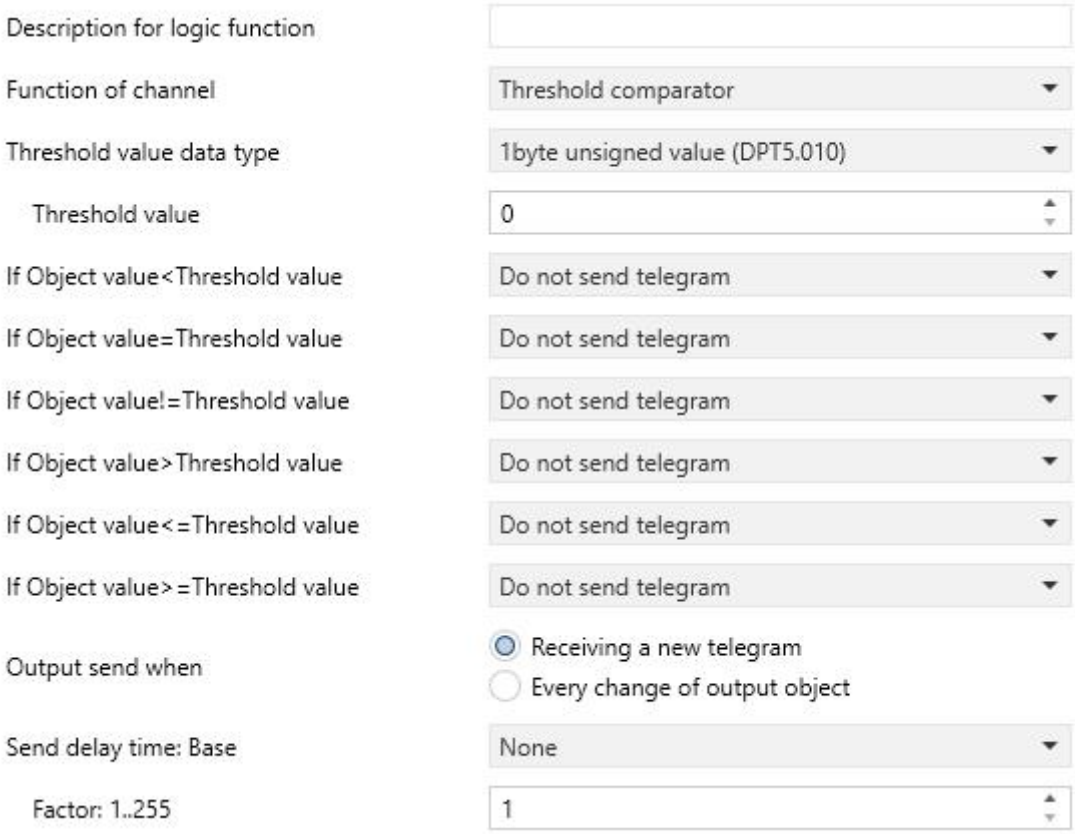
k

k

k 8 k

X (X=A/B/C/D) k

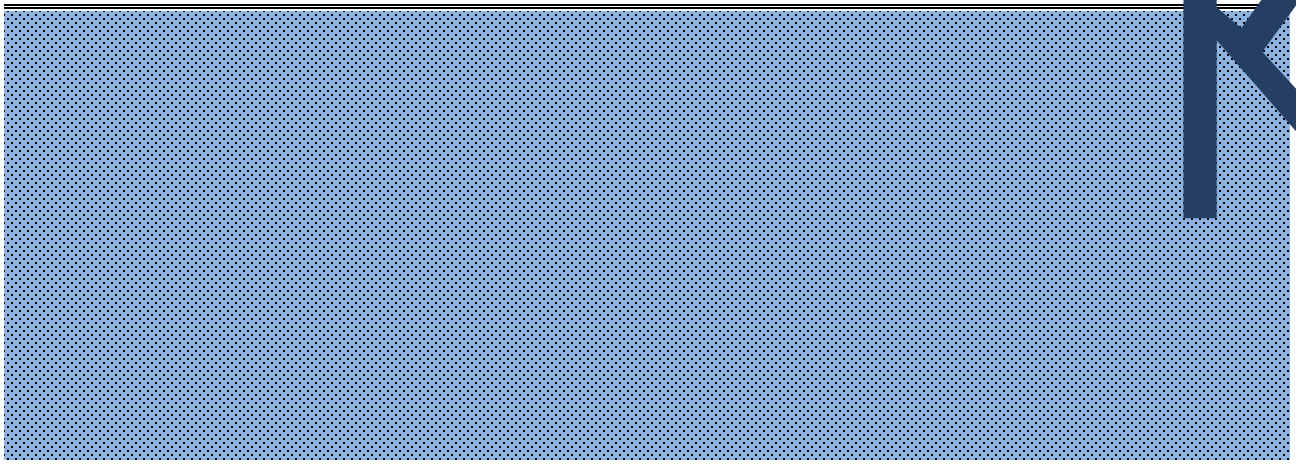
k k



5.7.3 “Threshold comparator”

k

k



! ! ! !

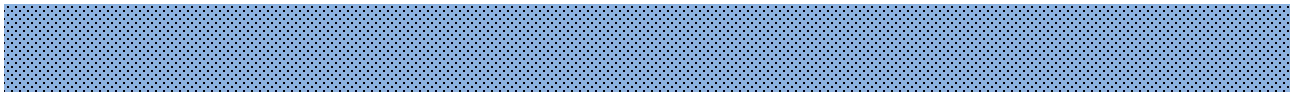
k

Do not send telegram

Send value “0”/“1” 0 1 k

k

k

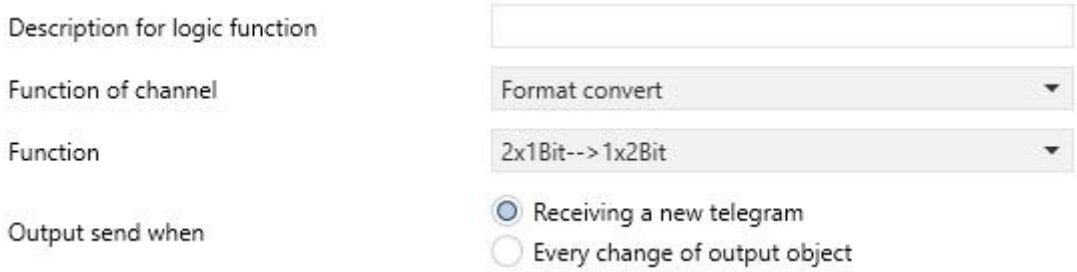


k

Receiving a new telegram

Every change

k Base × Factor Base “None” k



5.7.4 “Format convert”

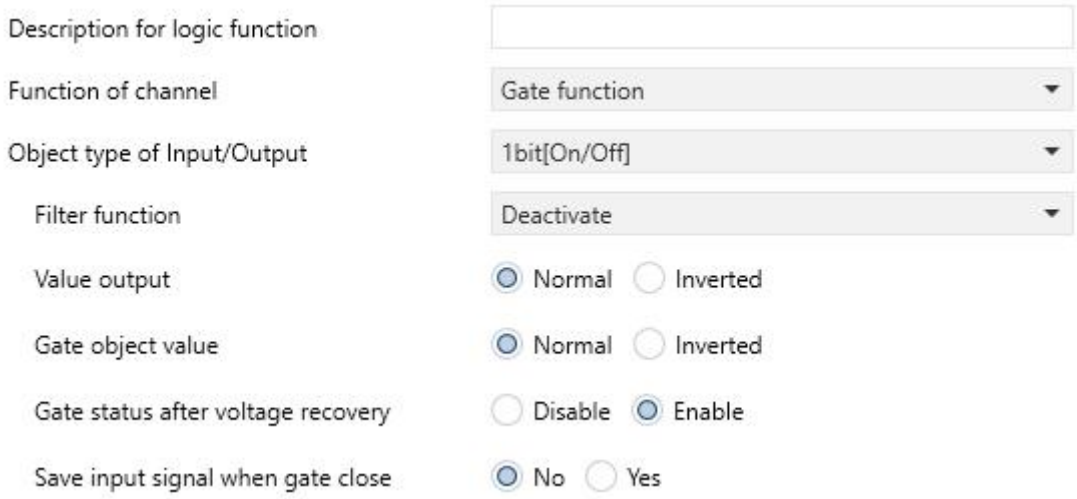
k

k

Receiving a new telegram

Every change of output object k

k



5.7.5 “Gate function”

/ k

- -

“1bit[On/Off]” k On Off

k

Deactivate On Off

On filter out Off On

Off filter out On Off k

- -

“1bit[On/Off]” k k

k

k

k

No

Yes k

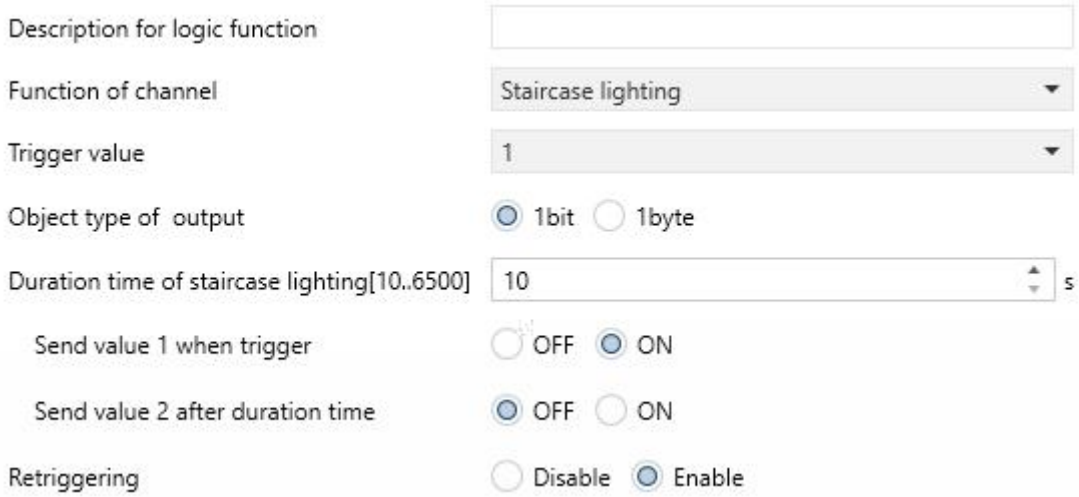
k k

5.7.6 “Delay function”

/ k

k

k



5.7.7 “Staircase lighting”

“Trigger value” k

k

k

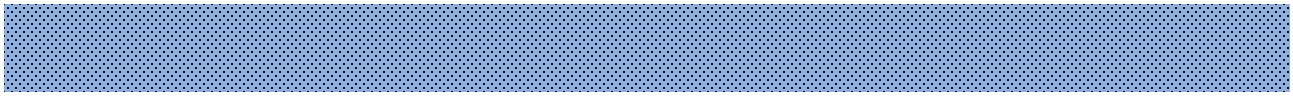
k

k 1 2 k

k

1bit

1byte



k

x y 8 k

8 8

x y k 30 k

x y k

1byte 2byte k

1byte

2byte

x y k 8 k

y

1bit

1byte-1byte unsigned value

1byte-HVAC mode

2byte-2byte unsigned value

2byte-Temperature value

RGB RGBW RGB

RGBW

k

k

k

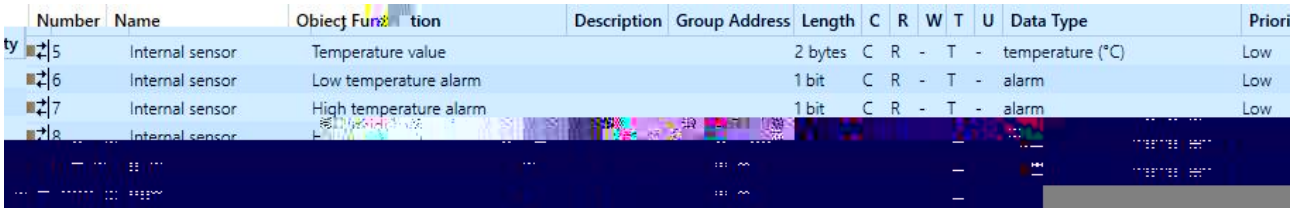
Num	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priority
1	General	In operation			1 bit	C	R	-	T	-	-	switch	Low
4	General	Screen brightness			1 byte	C	-	W	-	-	-	percentage (0..100%)	Low
224	Extension function	Panel locking			1 bit	C	-	W	-	-	-	enable	Low
225	Extension function	Screen on/off			1 bit	C	-	W	-	-	-	switch	Low
226	Extension function	Night mode			1 bit	C	-	W	T	U	-	day/night	Low
228	Extension function	Dis/En Proximity function			1 bit	C	-	W	-	-	-	enable	Low
229	Extension function	Proximity input			1 bit	C	-	W	-	-	-	switch	Low
230	Extension function	Proximity output			1 bit	C	-	-	T	-	-	switch	Low
231	Extension function	Alarm acknowledge			1 bit	C	-	-	T	-	-	acknowledge	Low
232	Extension function	Alarm message			14 bytes	C	-	W	-	-	-	Character String (ISO 8859-1)	Low
233	Extension function	Alarm input			1 bit	C	-	W	T	U	-	alarm	Low
234	Extension function	Locking scene			1 byte	C	-	-	T	-	-	scene number	Low
235	Extension function	Screen off scene			1 byte	C	-	-	T	-	-	scene number	Low
236	Extension function	Orientation LED function			1 bit	C	-	W	-	-	-	enable	Low
237	Screensaver-Items 1	Temperature value			2 bytes	C	-	W	T	U	-	temperature (°C)	Low
238	Screensaver-Items 2	Humidity value			2 bytes	C	-	W	T	U	-	humidity (%)	Low
239	Screensaver-Items 3	1bit value			1 bit	C	-	W	T	U	-	switch	Low
240	Screensaver-Items 4	1byte percent value			1 byte	C	-	W	T	U	-	percentage (0..100%)	Low

6.1 “General”

					DPT
		“1”			k k
		k			
		k			k
		10~100%	10%	10%	k
					k k

1 k

k k



Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
5	Internal sensor	Temperature value			2 bytes	C	R	-	T	-	temperature (°C)	Low
6	Internal sensor	Low temperature alarm			1 bit	C	R	-	T	-	alarm	Low
7	Internal sensor	High temperature alarm			1 bit	C	R	-	T	-	alarm	Low
8	Internal sensor											

6.2 “Internal sensor measurement”

					DPT
k	-50~99.8℃				
k					
k					
k	0~100%				
k					
k					

6.2 “Internal sensor measurement”

Num	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priori
219	Input 1 - ...	Actual temperature, Sensor			2 bytes	C	R	-	T	-	-	temperature (°C)	Low
220	Input 1 - ...	Temperature error report, Sensor			1 bit	C	R	-	T	-	-	alarm	Low

Num	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priori
219	Input 1 - ...	Close, Switch			1 bit	C	R	W	T	U	-	switch	Low
220	Input 1 - ...												
219	Input 1 - ...	Short, Switch			1 bit	C	R	W	T	U	-	switch	Low
220	Input 1 - ...	Long, Switch			1 bit	C	R	W	T	U	-	switch	Low

Num	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priority
218	Input 1 - ...	Disable			1 bit	C	-	W	-	-	-	enable	Low
219	Input 1 - ...	Scene			1 byte	C	-	-	T	-	-	scene control	Low
219	Input 1 - ...	Close, Scene			1 byte	C	-	-	T	-	-	scene control	Low
220	Input 1 - ...	Open, Scene			1 byte	C	-	-	T	-	-	scene control	Low
219	Input 1 - ...	Short, Scene			1 byte	C	-	-	T	-	-	scene control	Low
220	Input 1 - ...	Long, Scene			1 byte	C	-	-	T	-	-	scene control	Low

Num	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priority
218	Input 1 - ...	Disable			1 bit	C	-	W	-	-	-	enable	Low
219	Input 1 - ...	String			14 bytes	C	-	-	T	-	-	Character String (ISO 8859-1)	Low
219	Input 1 - ...	Close, String			14 bytes	C	-	-	T	-	-	Character String (ISO 8859-1)	Low
220	Input 1 - ...	Open, String			14 bytes	C	-	-	T	-	-	Character String (ISO 8859-1)	Low
218	Input 1 - ...	Disable			1 bit	C	-	W	-	-	-	enable	Low
219	Input 1 - ...	Short, String			14 bytes	C	-	-	T	-	-	Character String (ISO 8859-1)	Low
220	Input 1 - ...	Long, String			14 bytes	C	-	-	T	-	-	Character String (ISO 8859-1)	Low

6.3 “Input”

					DPT
			k		-50~99.8℃
		“Description (max 30char.)”			“Input x - ...” k
	k				
			k		
	/			!	k

k / 1 2 k

1 “Switch” k 2 “Close/Open”

“Short/Long” k

0

1

8bit k / 1

2 k

1 “Scene” k 2 “Close/Open”

“Short/Long” k 8bit k

8bit ( ) FXNNNNNN

F ‘0’ ‘1’

X 0

NNNNNN 0...63 k

0 1 2 ... 63	1 2 3 ... 64
128 129 130 ... 191	1 2 3 ... 64

1~64 0~63 k 1

0 k

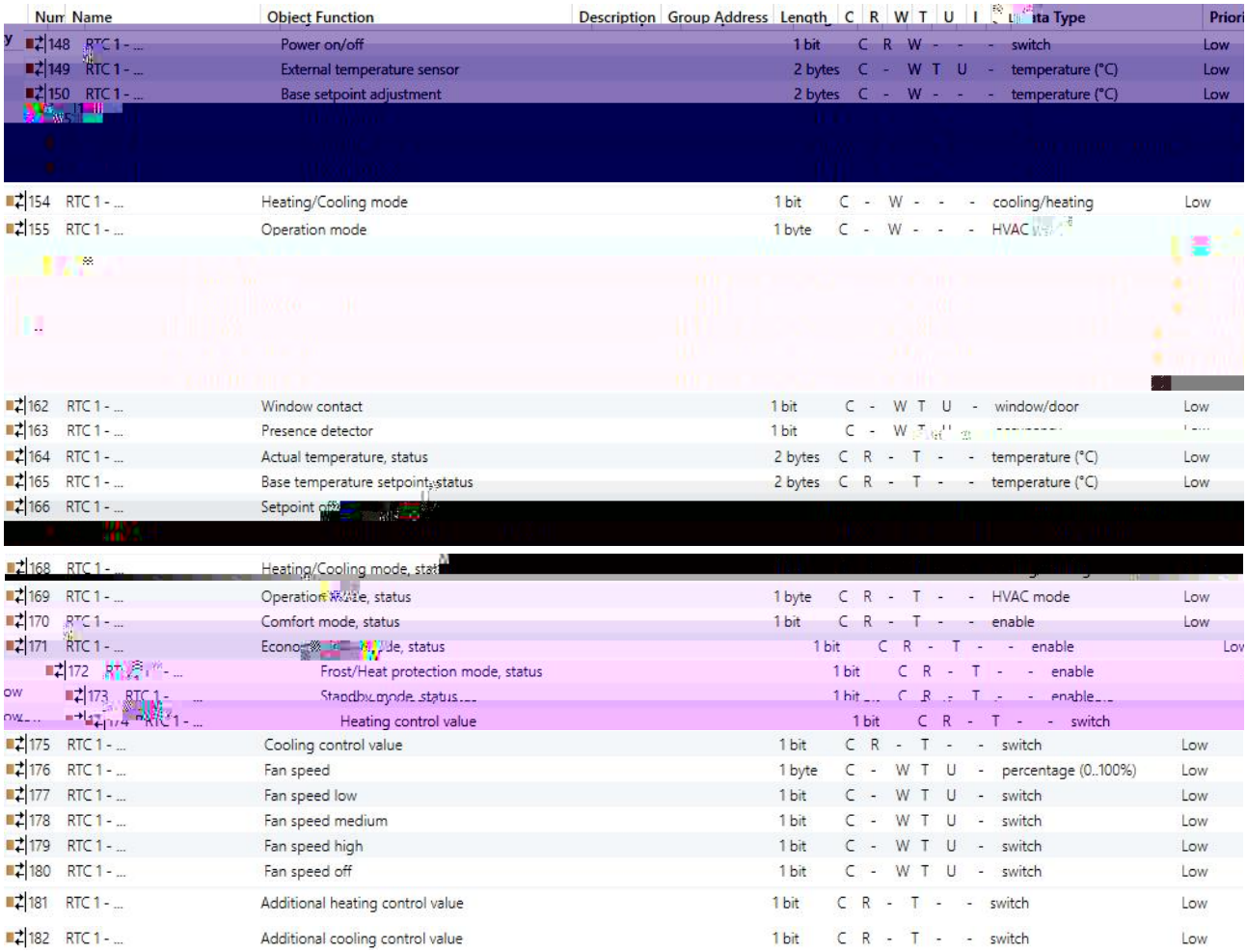
k / 1 2

k

1 “String” k 2 “Close/Open”

“Short/Long” k

6.3 “Input”



Num	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priori
148	RTC 1 - ...	Power on/off			1 bit	C	R	W	-	-	-	switch	Low
149	RTC 1 - ...	External temperature sensor			2 bytes	C	-	W	T	U	-	temperature (°C)	Low
150	RTC 1 - ...	Base setpoint adjustment			2 bytes	C	-	W	-	-	-	temperature (°C)	Low
154	RTC 1 - ...	Heating/Cooling mode			1 bit	C	-	W	-	-	-	cooling/heating	Low
155	RTC 1 - ...	Operation mode			1 byte	C	-	W	-	-	-	HVAC	
162	RTC 1 - ...	Window contact			1 bit	C	-	W	T	U	-	window/door	Low
163	RTC 1 - ...	Presence detector			1 bit	C	-	W	T				
164	RTC 1 - ...	Actual temperature, status			2 bytes	C	R	-	T	-	-	temperature (°C)	Low
165	RTC 1 - ...	Base temperature setpoint, status			2 bytes	C	R	-	T	-	-	temperature (°C)	Low
166	RTC 1 - ...	Setpoint											
168	RTC 1 - ...	Heating/Cooling mode, stat											
169	RTC 1 - ...	Operation mode, status			1 byte	C	R	-	T	-	-	HVAC mode	Low
170	RTC 1 - ...	Comfort mode, status			1 bit	C	R	-	T	-	-	enable	Low
171	RTC 1 - ...	Econ... de, status			1 bit	C	R	-	T	-	-	enable	Low
172	RTC 1 - ...	Frost/Heat protection mode, status			1 bit	C	R	-	T	-	-	enable	
173	RTC 1 - ...	Standby mode, status			1 bit	C	R	-	T	-	-	enable	
174	RTC 1 - ...	Heating control value			1 bit	C	R	-	T	-	-	switch	
175	RTC 1 - ...	Cooling control value			1 bit	C	R	-	T	-	-	switch	Low
176	RTC 1 - ...	Fan speed			1 byte	C	-	W	T	U	-	percentage (0..100%)	Low
177	RTC 1 - ...	Fan speed low			1 bit	C	-	W	T	U	-	switch	Low
178	RTC 1 - ...	Fan speed medium			1 bit	C	-	W	T	U	-	switch	Low
179	RTC 1 - ...	Fan speed high			1 bit	C	-	W	T	U	-	switch	Low
180	RTC 1 - ...	Fan speed off			1 bit	C	-	W	T	U	-	switch	Low
181	RTC 1 - ...	Additional heating control value			1 bit	C	R	-	T	-	-	switch	Low
182	RTC 1 - ...	Additional cooling control value			1 bit	C	R	-	T	-	-	switch	Low

6.4 “Room temperature controller”

					DPT
		k			
	1——				
	0——				
		k		-50~99.8°C	

“Current setpoint adjustment” k

k

“Base setpoint adjustment”

k

1byte 155 1- 2- 3- 4- k

1bit

156 ˚

157 ˚

158 ˚

159 ˚

“1” k 1bit ! 0

k 1bit “1” 0 k

k

1 ˚

0 ˚

1 1

k k

/ k

k 1 ˚ 0 ˚					
k 1 ˚ 0 ˚					
k 1 ˚ 0 ˚					
k k					
k = 19 +					
k					

k

k

k

1byt, % 1

rr 2

k

1bit

177 ˚

178 ˚

179 ˚

180 ˚

“1” k 1bit-off

“0” GVS

1bit-off “1”

k

1byte k 176

k

k

Nun	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priority
254	Button 1 - ...	Disable			1 bit	C	-	W	-	-	-	enable	Low
255	Button 1 - ...	Switch			1 bit	C	-	-	T	-	-	switch	Low
258	Button 1 - ...	Flashing function			1 bit	C	-	W	-	U	-	enable	Low
260	Button 1 - ...	Switch status			1 bit	C	-	W	T	U	-	switch	Low
255	Button 1 - ...	Press, Switch			1 bit	C	-	-	T	-	-	switch	Low
256	Button 1 - ...	Release, Switch			1 bit	C	-	-	T	-	-	switch	Low
260	Button 1 - ...	Press, Switch status			1 bit	C	-	W	T	U	-	switch	Low
261	Button 1 - ...	Release, Switch status			1 bit	C	-	W	T	U	-	switch	Low
255	Button 1 - ...	Short, Switch			1 bit	C	-	-	T	-	-	switch	Low
256	Button 1 - ...	Long, Switch			1 bit	C	-	-	T	-	-	switch	Low
260	Button 1 - ...	Short, Switch status			1 bit	C	-	W	T	U	-	switch	Low
					1 bit	C	-	W	T	U	-	switch	Low
	Status indication				1 bit	C	-	W	T	U	-	switch	Low

Switch

Nun	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priority
254	Button 1 - ...	Disable			1 bit	C	-	W	-	-	-	enable	Low
255	Button 1 - ...	Short, Switch			1 bit	C	-	-	T	-	-	switch	Low
256	Button 1 - ...	Long, Dimming			4 bit	C	-	W	T	-	-	dimming control	Low
260	Button 1 - ...	Switch status			1 bit	C	-	W	T	U	-	switch	Low
265	Button 1 - ...	Status indication			1 bit	C	-	W	T	U	-	switch	Low

Dimming

Nun	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priority
254	Button 1 - ...	Disable			1 bit	C	-	W	-	-	-	enable	Low
255	Button 1 - ...	Switch			1 bit	C	-	-	T	-	-	switch	Low
256	Button 1 - ...	RGB dimming value			3 bytes	C	-	-	T	-	-	RGB value 3x(0..255)	Low
256	Button 1 - ...	Red dimming value			1 byte	C	-	-	T	-	-	percentage (0..100%)	Low
257	Button 1 - ...	Green dimming value			1 byte	C	-	-	T	-	-	percentage (0..100%)	Low
258	Button 1 - ...	Blue dimming value			1 byte	C	-	-	T	-	-	percentage (0..100%)	Low
260	Button 1 - ...	Switch status			1 bit	C	-	W	T	U	-	switch	Low
265	Button 1 - ...	Status indication			1 bit	C	-	W	T	U	-	switch	Low

RGB switching/send value

Nun	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priority
254	Button 1 - ...	Disable			1 bit	C	-	W	-	-	-	enable	Low
255	Button 1 - ...	Switch			1 bit	C	-	-	T	-	-	switch	Low
256	Button 1 - ...	RGBW dimming value			6 bytes	C	-	-	T	-	-	RGBW value 4x(0..100%)	Low
256	Button 1 - ...	Red dimming value			1 byte	C	-	-	T	-	-	percentage (0..100%)	Low
257	Button 1 - ...	Green dimming value			1 byte	C	-	-	T	-	-	percentage (0..100%)	Low
258	Button 1 - ...	Blue dimming value			1 byte	C	-	-	T	-	-	percentage (0..100%)	Low
259	Button 1 - ...	White dimming value			1 byte	C	-	-	T	-	-	percentage (0..100%)	Low
260	Button 1 - ...	Switch status			1 bit	C	-	W	T	U	-	switch	Low
265	Button 1 - ...	Status indication			1 bit	C	-	W	T	U	-	switch	Low

RGBW switching/send value

Nun	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priority
254	Button 1 - ...	Disable			1 bit	C	-	W	-	-	-	enable	Low
255	Button 1 - ...	Switch			1 bit	C	-	-	T	-	-	switch	Low
256	Button 1 - ...	Brightness value			1 byte	C	-	-	T	-	-	percentage (0..100%)	Low
257	Button 1 - ...	Hue			2 bytes	C	-	-	T	-	-	2-byte float value	Low

Colour temperature switching/send value

Nun	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priority
254	Button 1 - ...	Disable			1 bit	C	-	W	-	-	-	enable	Low
255	Button 1 - ...	Short, 1bit value			1 bit	C	-	-	T	-	-	switch	Low
256	Button 1 - ...	Long, 1bit value			1 bit	C	-	-	T	-	-	switch	Low
265	Button 1 - ...	Status indication			1 byte	C	-	W	T	U	-	percentage (0..100%)	Low

Value sender

Nun	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priority
254	Button 1 - ...	Disable			1 bit	C	-	W	-	-	-	enable	Low
255	Button 1 - ...	Scene			1 byte	C	-	-	T	-	-	scene control	Low
265	Button 1 - ...	Status indication			1 byte	C	-	W	T	U	-	percentage (0..100%)	Low
255	Button 1 - ...	Short, Scene			1 byte	C	-	-	T	-	-	scene control	Low
256	Button 1 - ...	Long, Scene			1 byte	C	-	-	T	-	-	scene control	Low

Scene control

Nun	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data	Priority
254	Button 1 - ...	Disable			1 bit	C	-	W	-	-	-	enable	Low
255	Button 1 - ...	Up/Down, Blind			1 bit	C	-	W	T	-	-	up/down	Low
256	Button 1 - ...	Stop/Adjust, Blind			1 bit	C	-	W	T	-	-	step	Low
258	Button 1 - ...	Flashing function			1 bit	C	-	W	-	U	-	enable	Low
265	Button 1 - ...	Status indication			1 byte	C	-	W	T	U	-	percentage (0..100%)	Low

Blind

Nun	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priority
254	Button 1 - ...	Disable			1 bit	C	-	W	-	-	-	enable	Low
255	Button 1 - ...	Register value			1 byte	C	-	W	T	U	-	counter pulses (0..255)	Low
265	Button 1 - ...	Status indication			1 byte	C	-	W	T	U	-	percentage (0..100%)	Low

Shift register

Nun	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priority
254	Button 1 - ...	Disable			1 bit	C	-	W	-	-	-	enable	Low
255	Button 1 - ...	Object1-On/Off			1 bit	C	-	W	T	-	-	switch	Low
256	Button 1 - ...	Object2-On/Off			1 bit	C	-	W	T	-	-	switch	Low
257	Button 1 - ...	Object3-On/Off			1 bit	C	-	W	T	-	-	switch	Low
258	Button 1 - ...	Object4-On/Off			1 bit	C	-	W	T	-	-	switch	Low
265	Button 1 - ...	Status indication			1 byte	C	-	W	T	U	-	percentage (0..100%)	Low

Multiple operation

Nun	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priority
254	Button 1 - ...	Disable			1 bit	C	-	W	-	-	-	enable	Low
255	Button 1 - ...	Short, Delay mode			1 bit	C	-	-	T	-	-	switch	Low
256	Button 1 - ...	Long, Delay mode			1 bit	C	-	-	T	-	-	switch	Low
265	Button 1 - ...	Status indication			1 byte	C	-	W	T	U	-	percentage (0..100%)	Low

Delay mode

Nun	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priority
254	Button 1 - ...	Disable			1 bit	C	-	W	-	-	-	enable	Low
255	Button 1 - ...	Switch			1 bit	C	-	-	T	-	-	switch	Low
256	Button 1 - ...	RGB dimming value			3 bytes	C	-	-	T	-	-	RGB value 3x(0..255)	Low
260	Button 1 - ...	Switch status			1 bit	C	-	W	T	U	-	switch	Low
261	Button 1 - ...	RGB brightness, status			3 bytes	C	-	W	T	U	-	RGB value 3x(0..255)	Low
265	Button 1 - ...	Status indication			1 bit	C	-	W	T	U	-	switch	Low

RGB dimming

Nun	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data	Priority
254	Button 1 - ...	Disable			1 bit	C	-	W	-	-	-	enable	Low
255	Button 1 - ...	Switch			1 bit	C	-	-	T	-	-	switch	Low
256	Button 1 - ...	RGBW dimming value			6 bytes	C	-	-	T	-	-	RGBW value 4x(0..100%)	Low
256	Button 1 - ...	Red dimming value			1 byte	C	-	-	T	-	-	percentage (0..100%)	Low
257	Button 1 - ...	Green dimming value			1 byte	C	-	-	T	-	-	percentage (0..100%)	Low
258	Button 1 - ...	Blue dimming value			1 byte	C	-	-	T	-	-	percentage (0..100%)	Low
259	Button 1 - ...	White dimming value			1 byte	C	-	-	T	-	-	percentage (0..100%)	Low
260	Button 1 - ...	Switch status			1 bit	C	-	W	T	U	-	switch	Low
261	Button 1 - ...	RGBW brightness, status			6 bytes	C	-	W	T	U	-	RGBW value 4x(0..100%)	Low
261	Button 1 - ...	Red brightness, status			1 byte	C	-	W	T	U	-	percentage (0..100%)	Low
262	Button 1 - ...	Green brightness			1 byte	C	-	W	T	U	-	percentage (0..100%)	Low
263	Button 1 - ...	Blue brightness, status			1 byte	C	-	W	T	U	-	percentage (0..100%)	Low
264	Button 1 - ...	White brightness, status			1 byte	C	-	W	T	U	-	percentage (0..100%)	Low
265	Button 1 - ...	Status indication			1 bit	C	-	W	T	U	-	switch	Low

RGBW dimming

Nun	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priority
254	Button 1 - ...	Disable			1 bit	C	-	W	-	-	-	enable	Low
255	Button 1 - ...	Switch			1 bit	C	-	-	T	-	-	switch	Low
256	Button 1 - ...	Brightness value			1 byte	C	-	-	T	-	-	percentage (0..100%)	Low
257	Button 1 - ...	Relative percentage colour temperature			1 byte	C	-	-	T	-	-	percentage (0..100%)	Low
260	Button 1 - ...	Switch status			1 bit	C	-	W	T	U	-	switch	Low
261	Button 1 - ...	Brightness value, status			1 byte	C	-	W	T	U	-	percentage (0..100%)	Low
262	Button 1 - ...	Rel[redacted]											
257	Button 1 - ...	Absolute colour temperature			2 bytes	C	-	-	T	-	-	absolute colour temperature...	Low
262	Button 1 - ...	Absolute colour temperature, status			2 bytes	C	-	W	T	U	-	absolute colour temperature...	Low

Colour temperature dimming

Nun	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priority
254	Button 1 - ...	Disable			1 bit	C	-	W	-	-	-	enable	Low
255	Button 1 - ...	Switch			1 bit	C	-	-	T	-	-	switch	Low
257	Button 1 - ...	Absolute colour temperature			2 bytes	C	-	-	T	-	-	a[redacted]te colour temperature...	Low
260	Button 1 - ...	Switch status			1 bit	C	-	W	T	U	-	switch	Low
262	Button 1 - ...	Absolute colour temperature, status			2 bytes	C	-	W	T	U	-	absolute colour temperature...	Low

Colour temperature adjustment

Nun	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	I	Data Type	Priority
[redacted]													
255	Rocker 1 - ...	Setpoint offset			1 bit	C	-	-	T	-	-	step	Low
255	Rocker 1 - ...	Offset setpoint adjustment			2 bytes	C	-	-	T	-	-	temperature difference (K)	Low
260	Rocker 1 - ...	Current Setpoint offset, status			2 bytes	C	-	W	T	U	-	temperature difference (K)	Low

Setpoint adjustment

6.5.1 /

					DPT
k / k “Description” “Button 1 - ...” k k					
k / 1 2 k					

1 “Switch” “Switch status” k 2

“Press/Release...” “Short/Long...” k

0 ˚

1 ˚

Obj.255/Obj.256 k

Obj.260/Obj.261 k k

k

Obj.255 ¦ Obj.260 k

Obj.256 k

“Long, Dimming” 1~7

1 7 0 9~15

9 15 8 k

k

Obj.255 / k

0 ˚ /

1 ˚ /

Obj.256 k

1

k k

Obj.255 k

Obj.256 k

k 1 2 k

1 “Scene” k 2 “Short/Long...” k

8bit k

8bit ( ) FXNNNNNN

F '0' '1'

X 0

NNNNNN 0...63 k

0 1 2 ... 63	1 2 3 ... 64
128 129 130 ... 191	1 2 3 ... 64

1~64 0~63 k 1

0 k

k

k

RGB / !

Obj.255 ! Obj.260

RGB 1x3byte Obj.256 ! Obj.261

Obj.256 RGB

Obj.261 RGB

3 RGB U8 U8 U8

3_{MSB}	2	1_{LSB}
R	G	B
UUUUUUUU	UUUUUUUU	UUUUUUUU

R: G: B:

RGBW / !

Obj.255 ! Obj.260

RGBW 1x6byte Obj.256 ! Obj.261

Obj.256 RGBW

Obj.261 RGBW

6 RGBW U8 U8 U8 U8 R8 R4 B4

6_{MSB}	5	4	3	2	1_{LSB}
R	G	B	W		r r r r mR mG mB mW
UUUUUUUU	UUUUUUUU	UUUUUUUU	UUUUUUUU	00000000	0000BBBB

R: G: B: W:

mR: , 0= , 1=

mG: , 0= , 1=

mB: , 0= , 1=

mW: , 0= , 1= k

RGB RGBW / ! k

Obj.256~Obj.258 !Obj.261~Obj.263 RGB 3x1byte RGBW 4x1byte

Obj.259 ! Obj.264 RGBW 4x1byte k

0…100%

Obj.256 R ( ) k

Obj.257 G( ) k

Obj.258	B( )	k
Obj.259	W( )	k
Obj.261	R ( )	k
Obj.262	G( )	k
Obj.263	B( )	k
Obj.264	W( )	k

Obj.262	“Relative per

“Offset Increase/Decrease(relative)” k

/ k

0 ˚

1 ˚

“Offset setpoint adjustment(relative)”

k

Obj.255 k

Obj.260 k k

! ! k / k

k

k

k

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
11	1st Logic	Input a			1 bit	C	-	W	T	U	boolean	Low
12	1st Logic	Input b			1 bit	C	-	W	T	U	boolean	Low
13	1st Logic	Input c			1 bit	C	-	W	T	U	boolean	Low
14	1st Logic	Input d			1 bit	C	-	W	T	U	boolean	Low
15	1st Logic	Input e			1 bit	C	-	W	T	U	boolean	Low
16	1st Logic	Input f			1 bit	C	-	W	T	U	boolean	Low
17	1st Logic	Input g			1 bit	C	-	W	T	U	boolean	Low
18	1st Logic	Input h			1 bit	C	-	W	T	U	boolean	Low
19	1st Logic	Logic result			1 bit	C	-	-	T		boolean	Low

6.6.1 “AND/OR/XOR”

					DPT
Input x k “Description for logic function” “1st Logic” k k					
k					

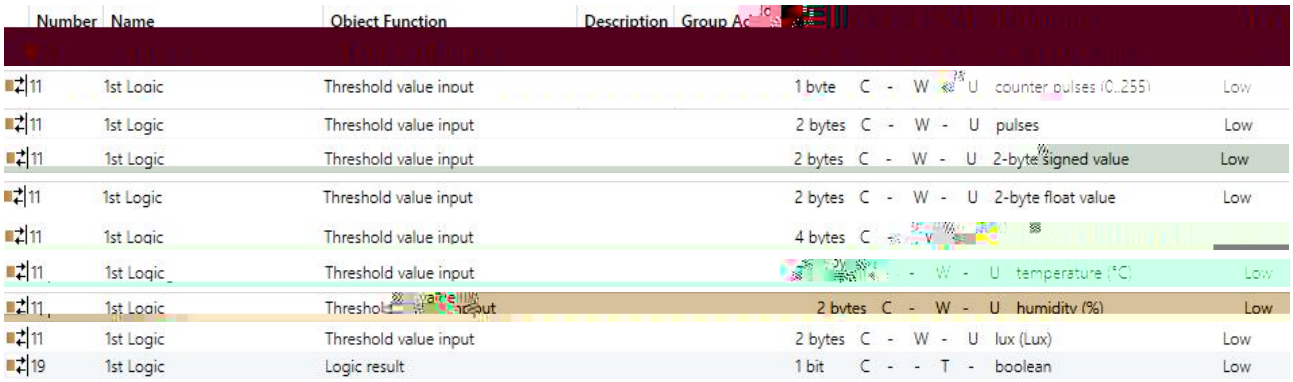
6.6.1 “AND/OR/XOR”

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
11	1st Logic	Gate value select			1 byte	C	-	W	-	-	scene number	Low
12	1st Logic	Input A			1 bit	C	-	W	-	-	switch	Low
13	1st Logic	Input B			1 bit	C	-	W	-	-	switch	Low
14	1st Logic	Input C			1 bit	C	-	W	-	-	switch	Low
15	1st Logic	Input D			1 bit	C	-	W	-	-	switch	Low
16	1st Logic	Output A			1 bit	C	-	-	T	-	switch	Low
17	1st Logic	Output B			1 bit	C	-	-	T	-	switch	Low
18	1st Logic	Output C			1 bit	C	-	-	T	-	switch	Low
19	1st Logic	Output D			1 bit	C	-	-	T	-	switch	Low

6.6.2 “Gate forwarding”

					DPT
k					
Input x k					
k k					

6.6.2 “Gate forwarding”



Number	Name	Object Function	Description	Group Ad							
11	1st Logic	Threshold value input		1 byte	C	-	W	-	U	counter pulses (0..255)	Low
11	1st Logic	Threshold value input		2 bytes	C	-	W	-	U	pulses	Low
11	1st Logic	Threshold value input		2 bytes	C	-	W	-	U	2-byte signed value	Low
11	1st Logic	Threshold value input		2 bytes	C	-	W	-	U	2-byte float value	Low
11	1st Logic	Threshold value input		4 bytes	C						
11	1st Logic	Threshold value input				-	W	-	U	temperature (°C)	Low
11	1st Logic	Threshold value input		2 bytes	C	-	W	-	U	humidity (%)	Low
11	1st Logic	Threshold value input		2 bytes	C	-	W	-	U	lux (Lux)	Low
19	1st Logic	Logic result		1 bit	C	-	-	T	-	boolean	Low

6.6.3 “Threshold comparator”

					DPT
k					
k					k

6.6.3 “Threshold comparator”

“2x1bit --> 1x2bit” 2 1bit 2bit Input bit1=1, bit0=0--> Output 2bit=2

“8x1bit --> 1x1byte” : 8 1bit 1byte Input bit2=1, bit1=1, bit0=1, 0--> Output 1byte=7

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
11	1st Logic	Input 1byte			1 byte	C	-	W	-	U	counter pulses (0..255)	Low
19	1st Logic	Output 2byte			2 bytes	C	-	-	T	-	pulses	Low

“1x1byte --> 1x2byte” 1byte 2byte Input 1byte=125--> Output 2byte=125,

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
11	1st Logic	Input 1byte-low			1 byte	C	-	W	-	U	counter pulses (0..255)	Low
12	1st Logic	Input 1byte-high			1 byte	C	-	W	-	U	counter p	

“2x1byte --> 1x2byte” 2 1byte 2byte Input 1byte-low = 255 ($FF), Input 1byte-high = 100 ($64) --> Output 2byte = 25855 ($64 FF)

“2x2byte --> 1x4byte” 2 2byte 4byte Input 2byte-low = 65530 ($FF FA), Input 2byte-high = 32768 ($80 00)--> Output 2byte = 2147549178 ($80 00 FF FA)

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
11	1st Logic	Input 1byte			1 byte	C	-	W	-	U	counter pulses (0..255)	Low
12	1st Logic	Output 1bit-bit0			1 bit	C	-	-	T	-	boolean	Low
13	1st Logic	Output 1bit-bit1			1 bit	C	-	-	T	-	boolean	Low
14	1st Logic	Output 1bit-bit2			1 bit	C	-	-	T	-	boolean	Low
15	1st Logic	Output 1bit-bit3			1 bit	C	-	-	T	-	boolean	Low
16	1st Logic	Output 1bit-bit4			1 bit	C	-	-	T	-	boolean	Low
17	1st Logic	Output 1bit-bit5			1 bit	C	-	-	T	-	boolean	Low
18	1st Logic	Output 1bit-bit6			1 bit	C	-	-	T	-	boolean	Low
19	1st Logic	Output 1bit-bit7			1 bit	C	-	-	T	-	boolean	Low

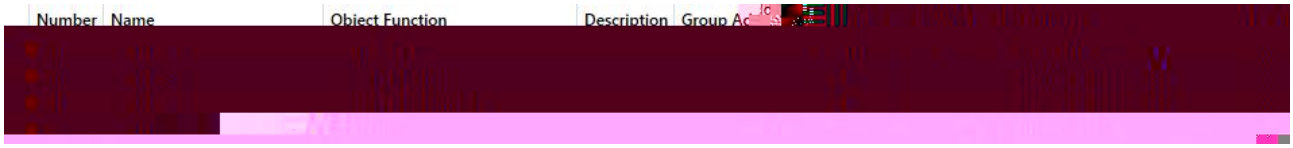
“1x1byte --> 8x1bit” 1 1byte 8 1bit Input 1byte=200 --> Output bit0=0, bit1=0, bit2=0, bit3=1, bit4=0, bit5=0, bit6=1, bit7=1

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
11	1st Logic	Input 2byte			2 bytes	C	-	W	-	U	pulses	Low
18	1st Logic	Output 1byte-low			1 byte	C	-	-	T	-	counter pulses (0..255)	Low
19	1st Logic	Output 1byte-high			1 byte	C	-	-	T	-	counter pulses (0..255)	Low

“1x2byte --> 2x1byte” 1 2byte 2 1byte Input 2byte = 55500 ($D8 CC) --> Output 1byte-low = 204 ($CC), Output 1byte-high =216 ($D8)

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
11	1st Logic	Input 4byte			4 bytes	C	-	W	-	U	counter pulses (unsigned)	Low
18	1st Logic	Output 2byte-low			2 bytes	C	-	-	T	-	pulses	Low
19	1st Logic	Output 2byte-high			2 bytes	C	-	-	T	-	pulses	Low

“1x4byte --> 2x2byte” 1 4byte 2 2byte Input 4byte = 78009500 ($04 A6 54 9C) --> Output 2byte-low = 21660 ($54 9C), Output 2byte-high =1190 ($04 A6)



“1x3byte --> 3x1byte” 1 3byte 3 1byte Input 3byte = $78 64 C8--> Output 1byte-low = 200 ($C8) , Output 1byte-middle = 100 ($64) , Output 1byte-high =120 ($78)

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
11	1st Logic	Input 1byte-low			1 byte	C	-	W	-	U	counter pulses (0..255)	

“3x1byte --> 1x3byte” 3 1byte 1 3byte Input 1byte-low = 150 ($96), Input 1byte-middle = 100 ($64), Input 1byte-high = 50 ($32)--> Output 3byte = $32 64 96

6.6.4 “Format convert”

					DPT
k					

k

6.6.4 “Format convert”

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
11	1st Logic	Input			1 bit	C	-	W	-	-	switch	Low
12	1st Logic	Gate input			1 bit	C	-	W	-	-	boolean	Low
19	1st Logic	Output			1 bit	C	-	-	T	-	switch	Low

Input/Output - 1bit[On/Off]

11	1st Logic	Input			1 byte	C	-	W	-	-	perc[illegible]..100%)	Low
12	1st Logic	Gate input			1 bit	C	-	W	-	-	boolean	Low
19	1st Logic	Output			1 byte	C	-	-	T	-	percentage (0..100%)	Low

Input/Output - 1byte[0..100%]

11	1st Logic	Input			1 byte	C	-	W	-	-	counter pulses (0..255)	Low
12	1st Logic	Gate input			1 bit	C	-	W	-	-	boolean	Low
19	1st Logic	Output			1 byte	C	-	-	T	-	counter pulses (0..255)	Low

Input/Output - 1byte[0..255]

11	1st Logic	Input			2 bytes	C	-	W	-	-	temperature (°C)	Low
12	1st Logic	Gate input			1 bit	C	-	W	-	-	boolean	Low
19	1st Logic	Output			2 bytes	C	-	-	T	-	temperature (°C)	Low

Input/Output - 2byte[Float]

11	1st Logic	Input			2 bytes	C	-	W	-	-	pulses	Low
12	1st Logic	Gate input			1 bit	C	-	W	-	-	boolean	Low
19	1st Logic	Output			2 bytes	C	-	-	T	-	pulses	Low

Input/Output - 2byte[0..65535]

6.6.5 “Gate function”

					DPT
k					
k k					

	k				“Gate input” k

6.6.5 “Gate function”

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
11	1st Logic	Input			1 bit	C	-	W	-	-	switch	Low
19	1st Logic	Output			1 bit	C	-	-	T	-	switch	Low
Input/Output - 1bit[On/Off												
11	1st Logic	Input			1 byte	C	-	W	-	-	percentage (0..100%)	Low
19	1st Logic	Output			1 byte	C	-	-	T	-	percentage (0..100%)	Low
Input/Output - 1byte[0..100%]												
11	1st Logic	Input			1 byte	C	-	W	-	-	counter pulses (0..255)	Low
19	1st Logic	Output			1 byte	C	-	-	T	-	counter pulses (0..255)	Low
Input/Output - 1byte[0..255]												
11	1st Logic	Input			2 bytes	C	-	W	-	-	temperature (°C)	Low
19	1st Logic	Output			2 bytes	C	-	-	T	-	temperature (°C)	Low
Input/Output - 2byte[Float]												
11	1st Logic	Input			2 bytes	C	-	W	-	-	[redacted]	

Input/Output - 2byte[0..65535]

6.6.6 “Delay function”

					DPT
	k				
			k		

6.6.6 “Delay function”

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
11	1st Logic	Trigger value			1 bit	C	-	W	-	-	trigger	Low
12	1st Logic	Light-on duration time			2 bytes	C	-	W	-	-	time (s)	Low
19	1st Logic	Output			1 bit	C	-	-	T	-	switch	Low
19	1st Logic	Output			1 byte	C	-	-	T	-	counter pulses (0..255)	Low

6.6.7 “Staircase lighting”

					DPT
k					
					k
1		2 k			k

6.6.7 “Staircase lighting”

6.7 “Scene Group”

					DPT
					k 0..63
					k k 8 8 k “Description for Output x function” “1st Scene Group-Output x” k

6.7 “Scene Group”

ETS	

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