86

P B S _V1.2

CHKPT-01/0 .1.03

=1 2 3 4 6

KNX/EIB

注意事项

1、请远离强磁场、高温、潮湿等环境；

2、不要将设备摔落在地上或使之受到强力冲击；

.....1

.....3

..... 4

3.1 4

3.2 5

3.3 6

3.4 7

.....8

ETS 9

5.1 G a 9

5.2 13

5.2.1 B /R X 14

5.2.2.1 S 15

5.2.2.2 S /D 17

5.2.2.3 Va /F 20

5.2.2.4 S 21

5.2.2.5 S 23

5.2.2.6 S 24

5.2.2.5!.....9..... ....

5.6 E G 55
..... 58
6.1 G a 58
6.2 B /R X 58
6.3 LED 64
6.4 65
6.4.1 AND/OR//XOR 65
6.4.2 Ga a 66
6.4.3 T a a 67
6.4.3 F a 67
6.5 70

LED

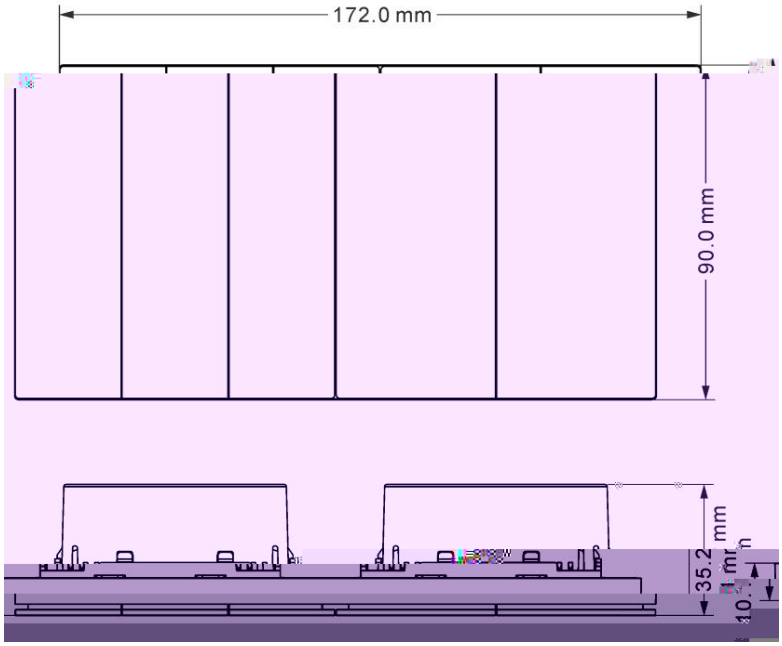
!

k

□□□□□□□

KNX

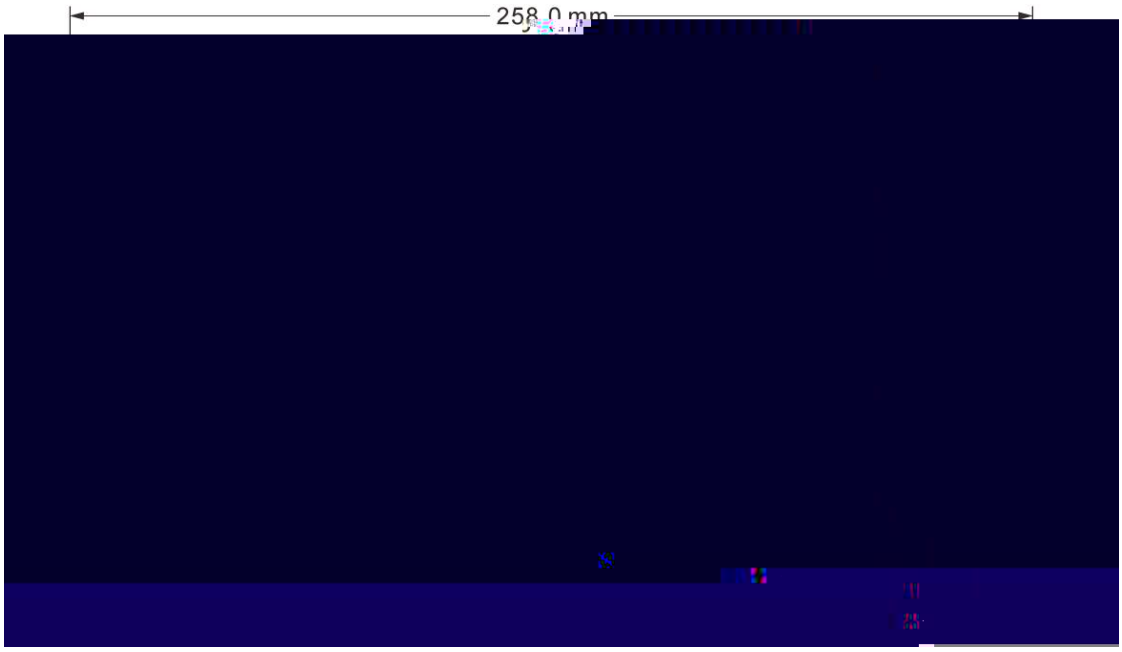
3.2

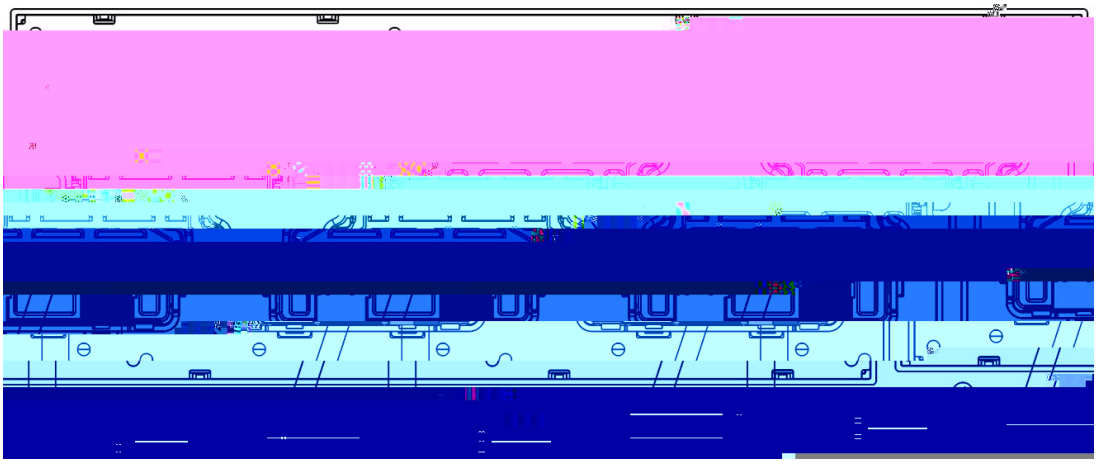


F LED LED

F

3.3

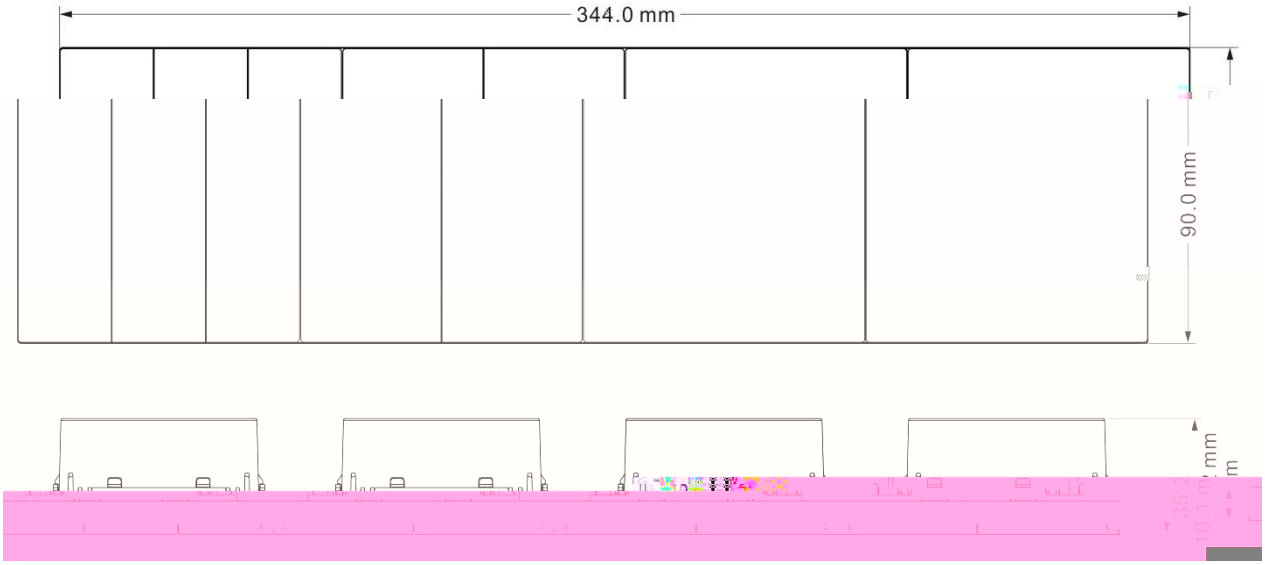


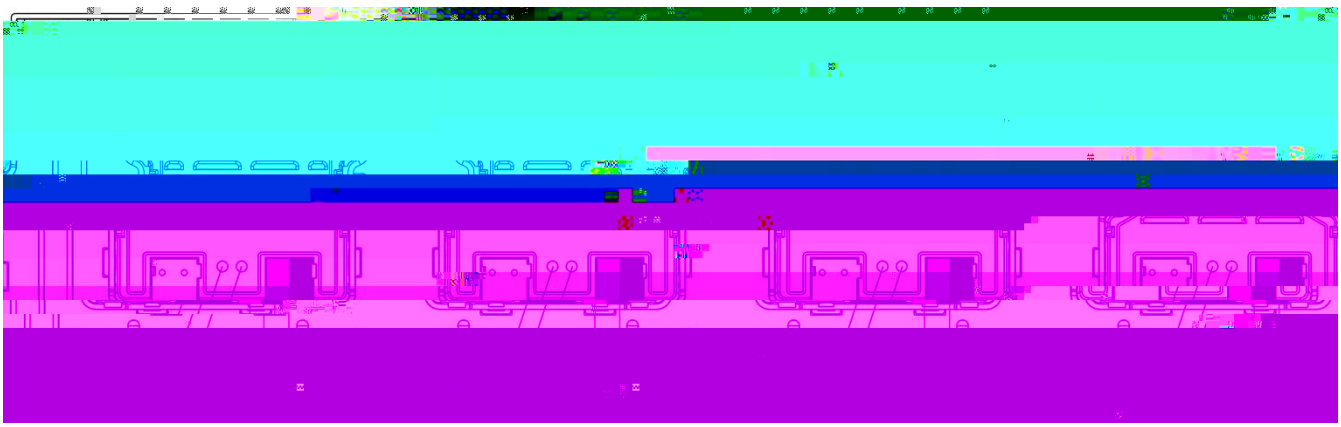


F ϟ ϳ LED LED

F ϟ ϳ

3.4





F LED LED

F

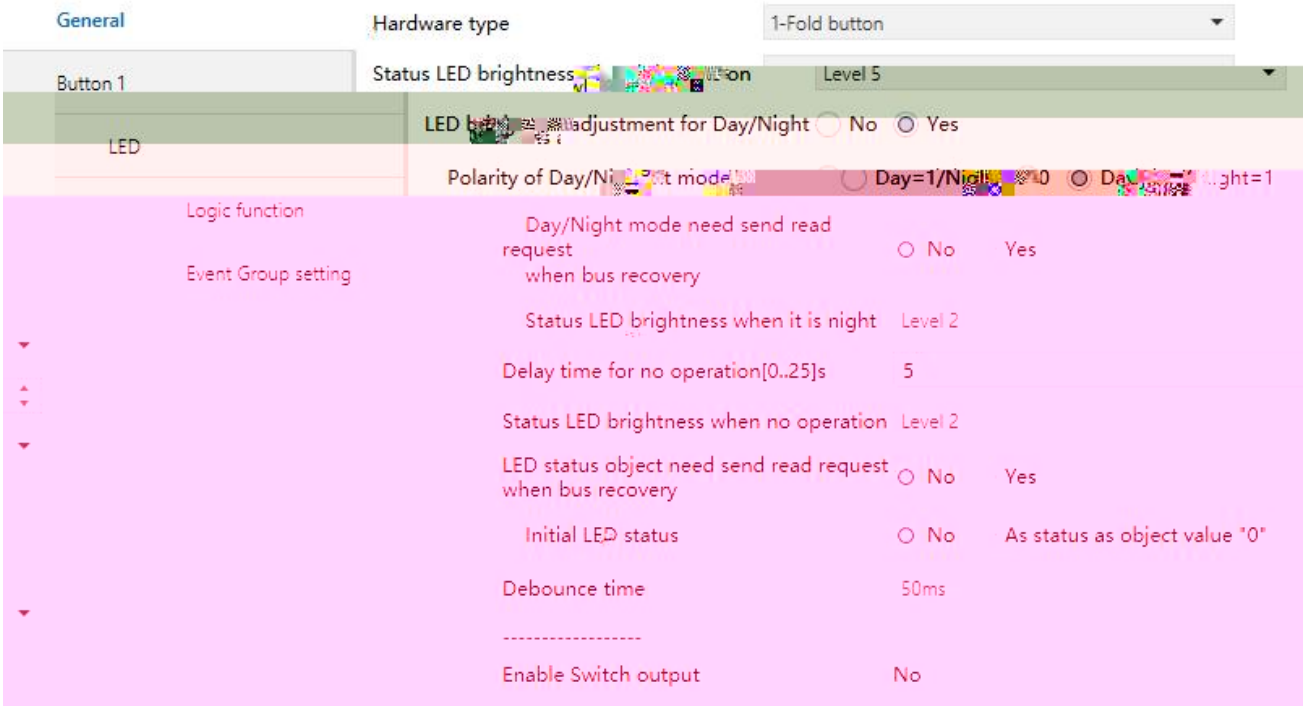
ETS

5.1 G a

General 5.1

k k

k



5.1 “General”

Ha a

LED k

1-F b

2-F b

B	1&2/3&4/5&6	a	

-Fold buttons(2 rockers) 6-Fold buttons(3 rockers) k

k

|

L

“Independent”

“Linked” k

5.2 5.3

k

/ 0 k

S a	LED b	

LED b a Da /N

LED /

N

Y

No: LED

Yes /

LED

P a Da /N

/

Da =1/N =0

Da =0/N =1

Day=1/Night=0 Day/Night mode 1 0

Day=0/Night=1 Day/Night mode 0 1

Da /N a b

Day/Night mode

Y

N

Yes LED /

No:

S a LED b

LED

OFF

L 1

No LED

N

A a a b a 0

No:

As status as object value “0”: LED 0 k LED Control

by external object 1byte Indicate contact press k

D b	

k

10

20

30

50

70

100

150

E ab S	N

k

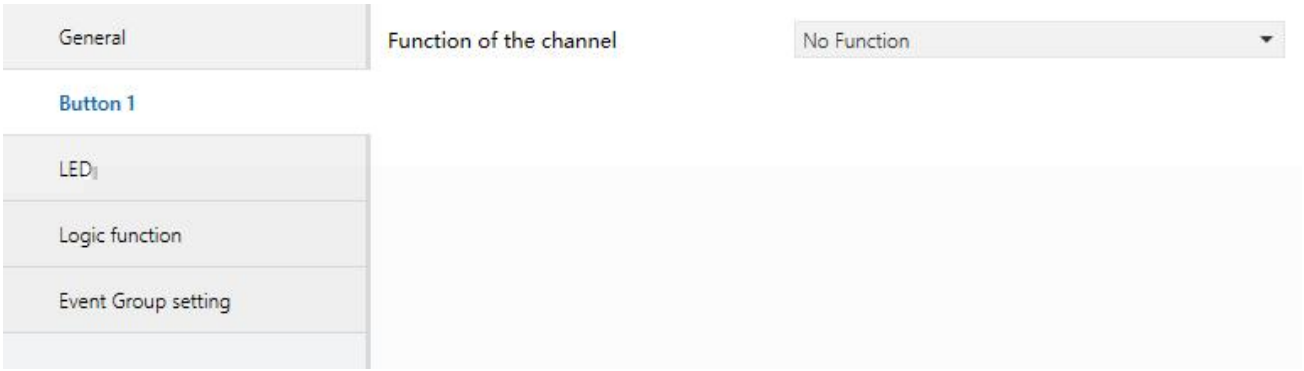
5.2

k

k

5.2.1 B /R X

Button/Rocker X 5.2 k



5.2 Button/Rocker X

F	a

N

S

S /D

Va /F /

S

S

S

RGB

RGB

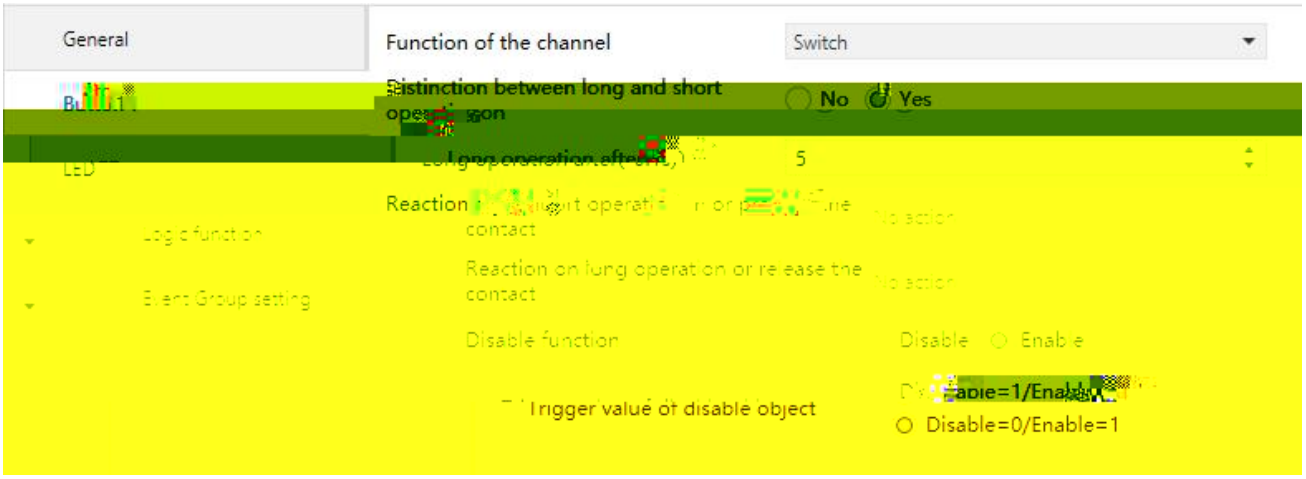
M a

D a

5.2.2.1 S

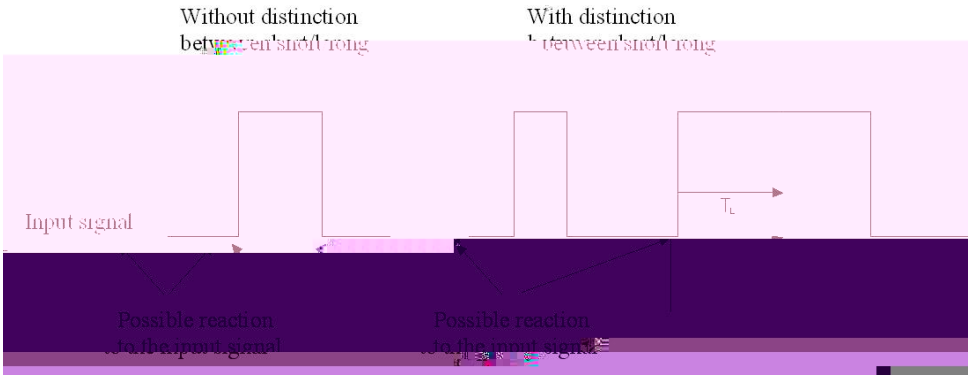
“Button X: Switch” 5.3

k



5.3 Button X: Switch

D	



Y

N

k

L a a (*0.1)

/ k

k **3..25**

R a	a	a /R a	a	a
a				

/ / k k

N a

OFF

ON

TOGGLE

No action k

ON

OFF

TOGGLE

k

D ab	

k

D ab

E ab

Enable k k

k

T a ab b

/ k

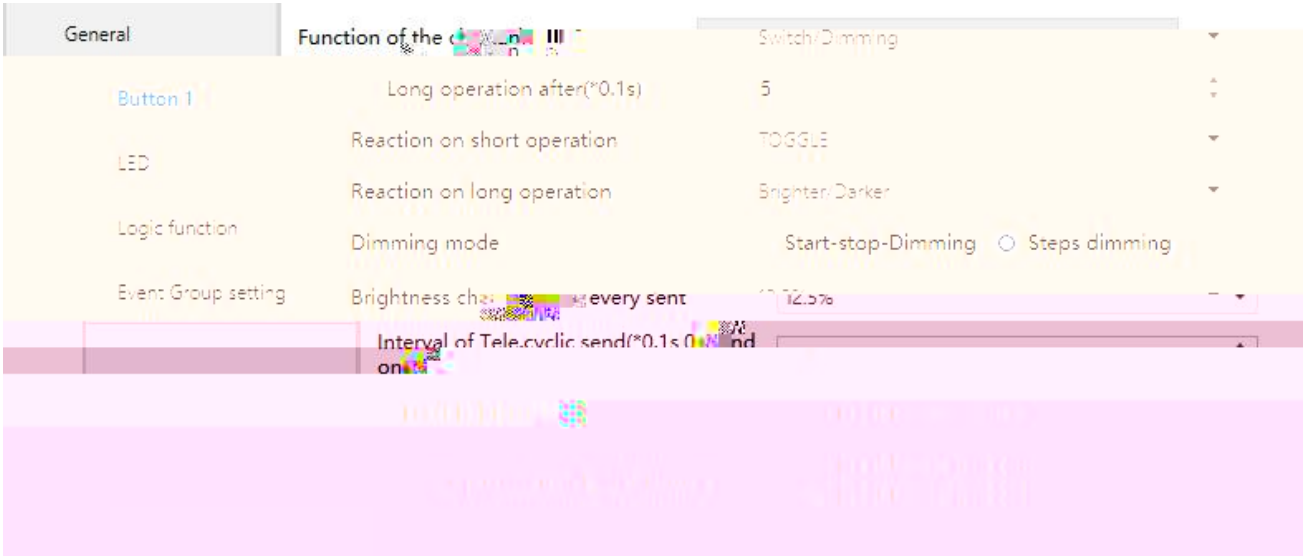
D ab =1/E ab =0

D ab =0/E ab =1

k

5.2.2.2 S /D

Button X:Switch/Dimming 5.4 k



5.4 Button X:Switch/Dimming

L a a *0.1

k

k **3..25**

R a	a

N a

ON

OFF

TOGGLE

No action k

ON k

OFF k

TOGGLE k

R a	a

k

N a

B

Da

B /Da

No reaction k

Brighter k

Darker k

Brighter/Darker k

TOGGLE

k

k

D

k

S a - D

S

Start-stop Dimming

k k

Steps dimming

k

B	a

Dimming r de

k

100%

50%

1.56%

k

Y

N

` L a a *0.1

/ k

k **3..25**

R a a b / R a a a b

/ / k

N a

1b a [0...1]

` `

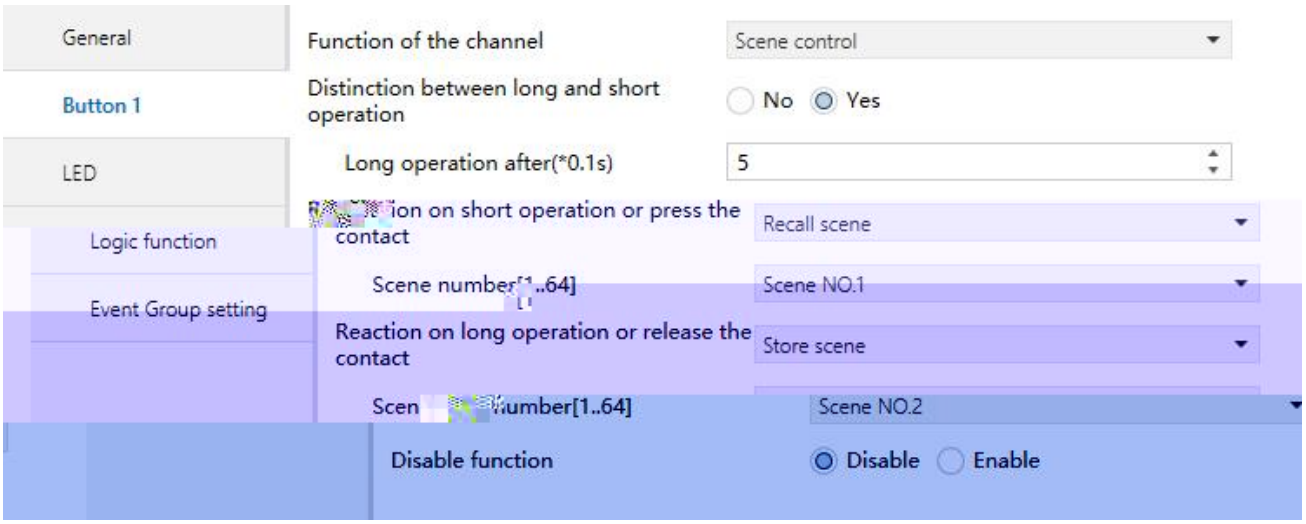
2 b a [0 65535]

` O a [ ]

k k

5.2.2.4 S

Scene control □ □ □ □ □ □ □ □ □ □



5.6 “Button x- Scene control”

D	b	a	a

/ k “Yes”

k

N

Y

L a a (*0.1)

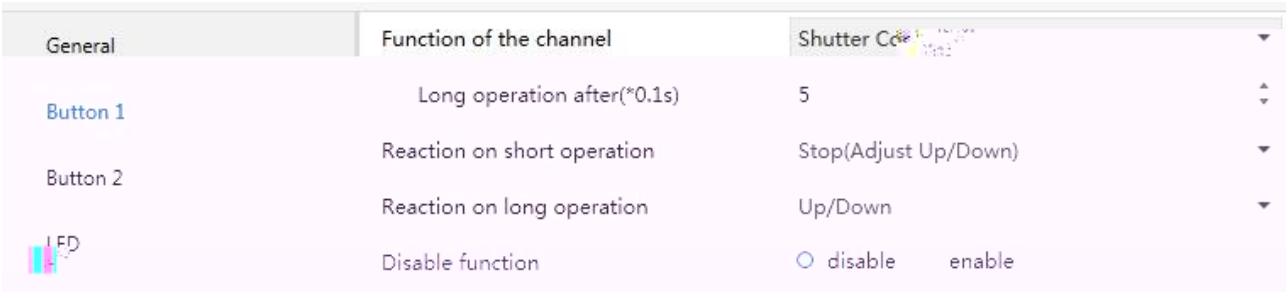
/ k

k **3../ ..E**

S NO.1 64 0 63 k

5.2.2.5 S

Shutter control 5.7 k



5.7 “Button x- Shutter control”

L a a *0.1

k

k 3..25 k

R a / a

N a

U

D

U /D

S (A U)

S (A D)

S (A U /D)

No action k

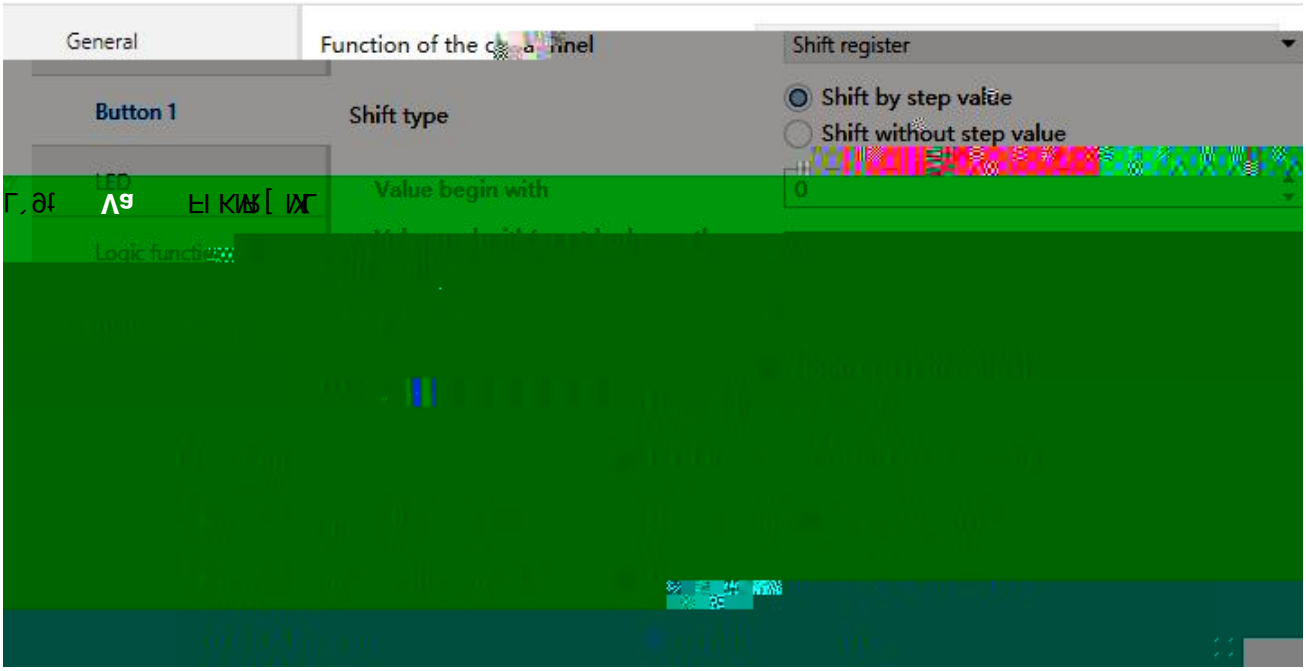
Stop (Adjust

St ust Dow k

Sto (Adjust Up/Down s / k

0.1 0

* . Stop...



5.8 “Button x- Shift register”

S

k

S b a

S a

Shift by step value

k

Shift without step value 10

k

Va b

wPShift by ® hift

Shift by step value k **1...250** k

k

S

Shift by step value

k **0...240** k

S b

Shift without step value 10

k **1/2/.../10** k

k

Va 1...10

k **0..255** k

D

k

F

F

From lowest to highest value 1 value 10

value 10 value 1 k

From highest to lowest value 10 value 1

value 1 value 10 k

R

k

D ab

E ab b a

Disable

Enable by long operation k

R a / a b

k

N a

S a

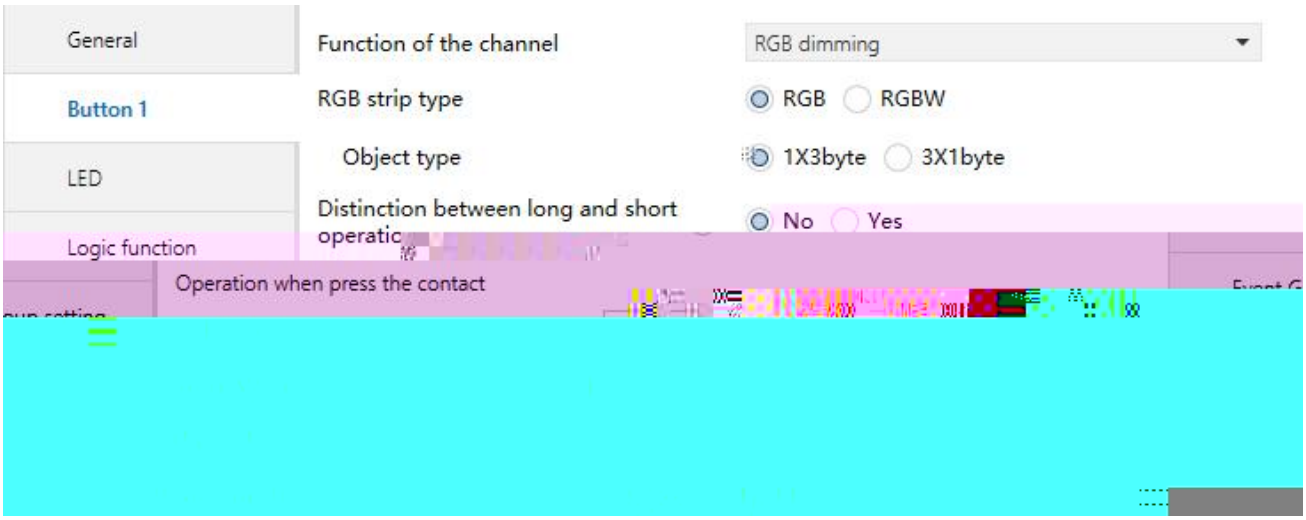
L a a *0.1

k

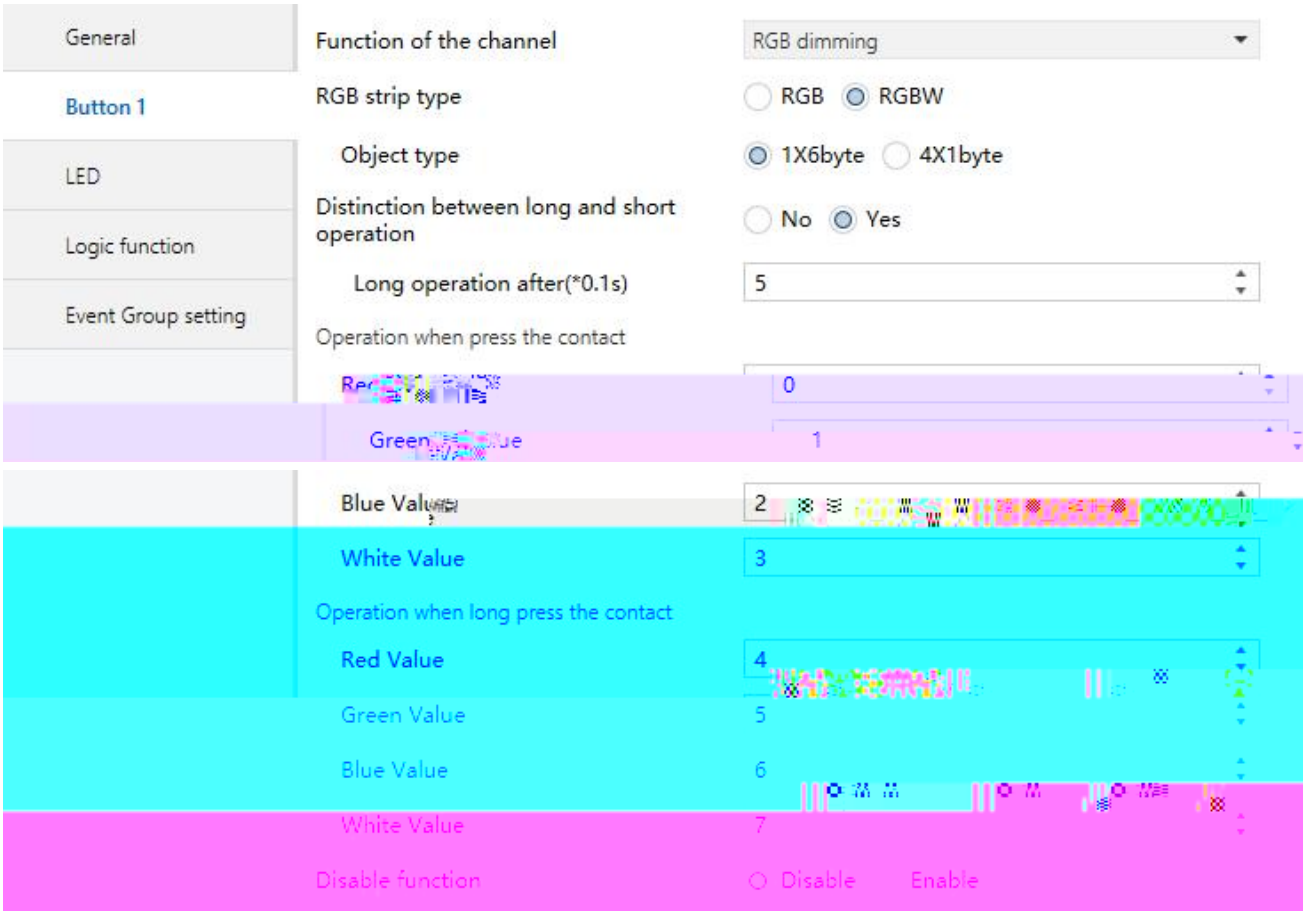
k **3..25** k

5.2.2.7 RGB

“RGB dimming” 5.9 5.10 k



5.9 “Button x- RGB dimming” 1



5.10 “Button x- RGBW dimming” 2

RGB

RGB

RGB

RGBW

RGB k

RGBW k

k

B

1 3b 3byte

3 1b 1byte

BW

1 6b

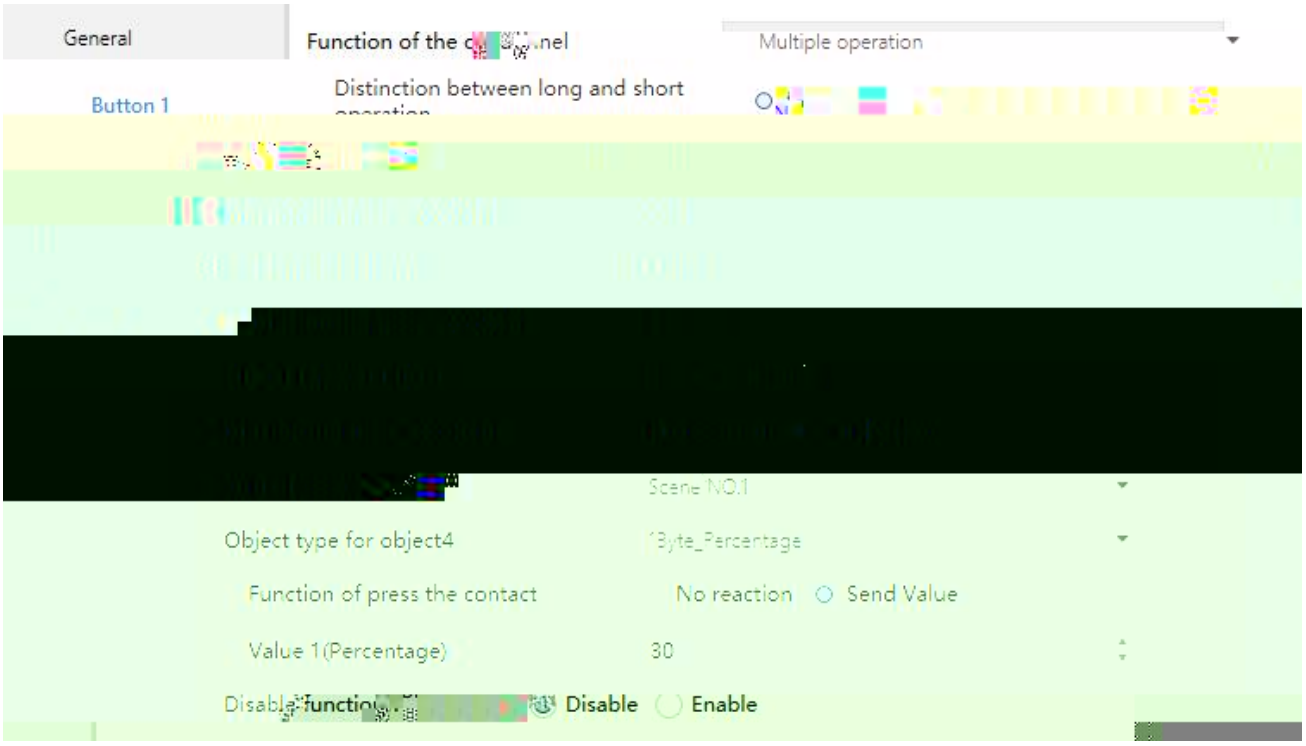
4 1b

D	b	a	a

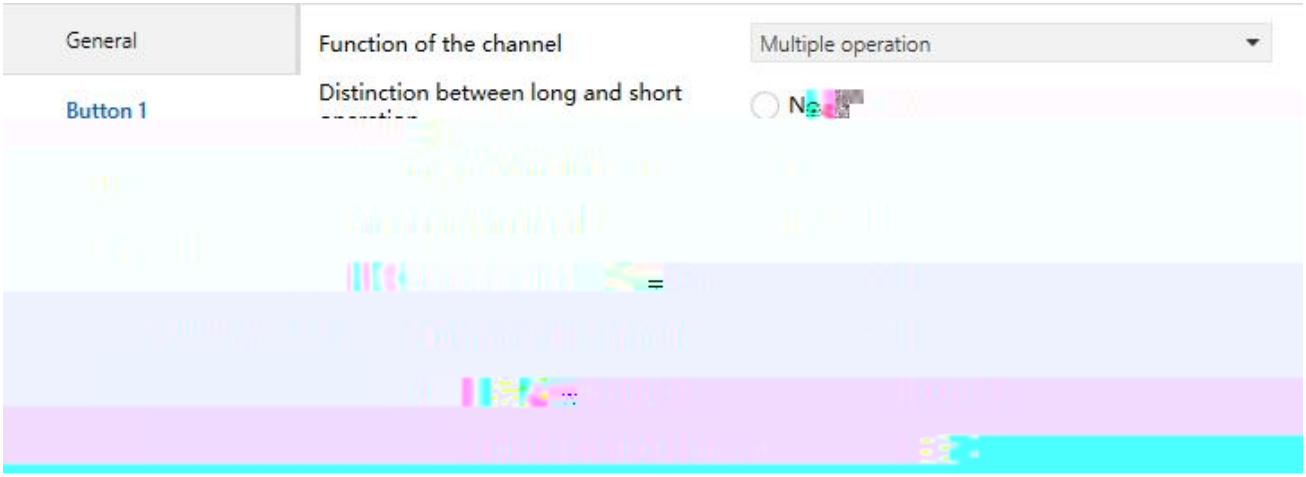
/ k “Yes”

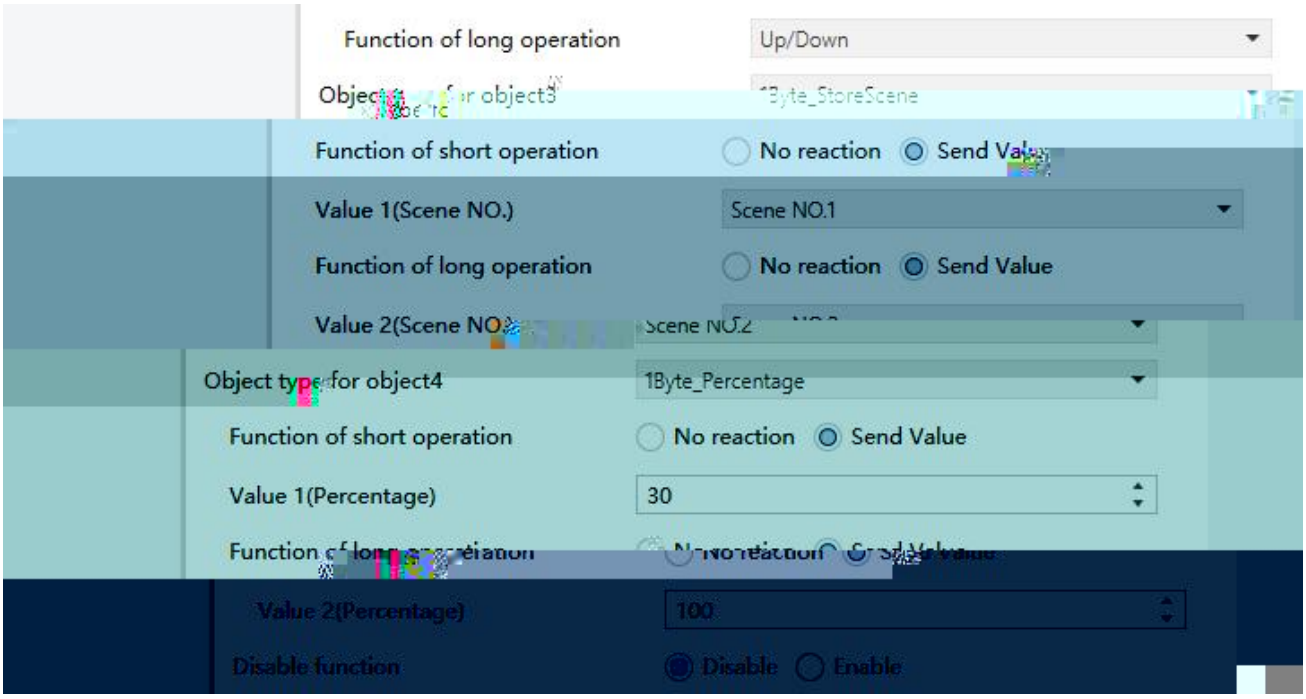
“Multiple operation” 5.11 k

k 4 k



5.11 “Button x- Multiple operation”( )





5.12 “Button x- Multiple operation”( )

D	b a a

/ k “Yes”

k

Y

N

L a a *0.1

/ k

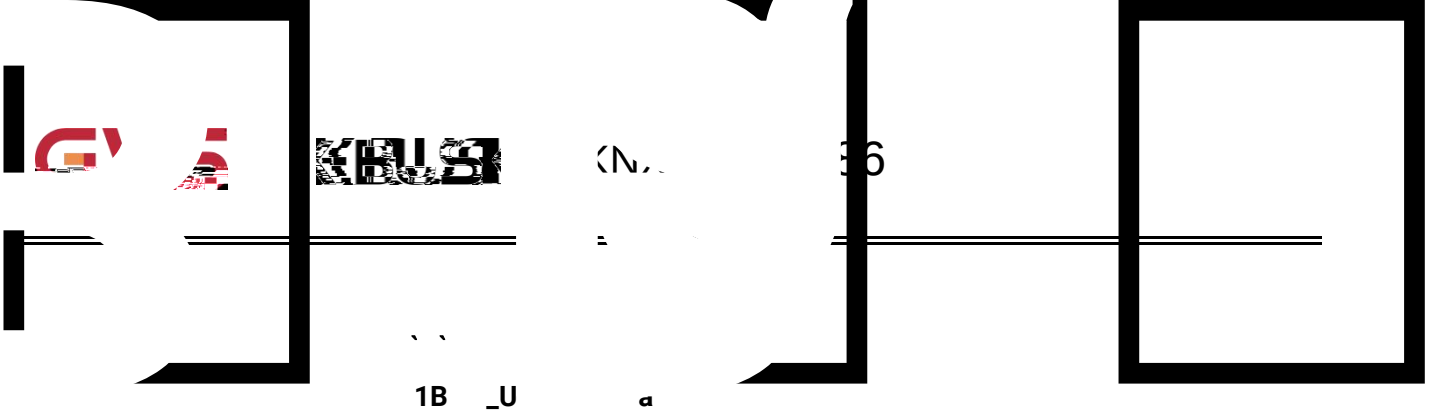
k **3..25** k

Ob	b	(=1..4)

/ k

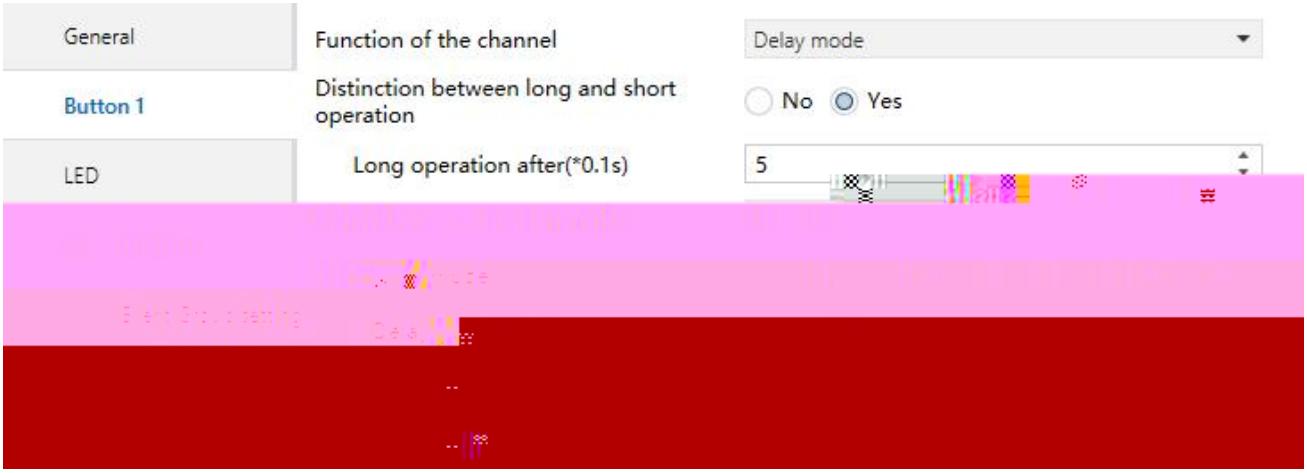
D ab

1B _O /O



1B _U a

F	b /F	a /F	a



5.14 “Button x- Delay mode”( )

D	b

1B _O /O

4B _D

1B _U a

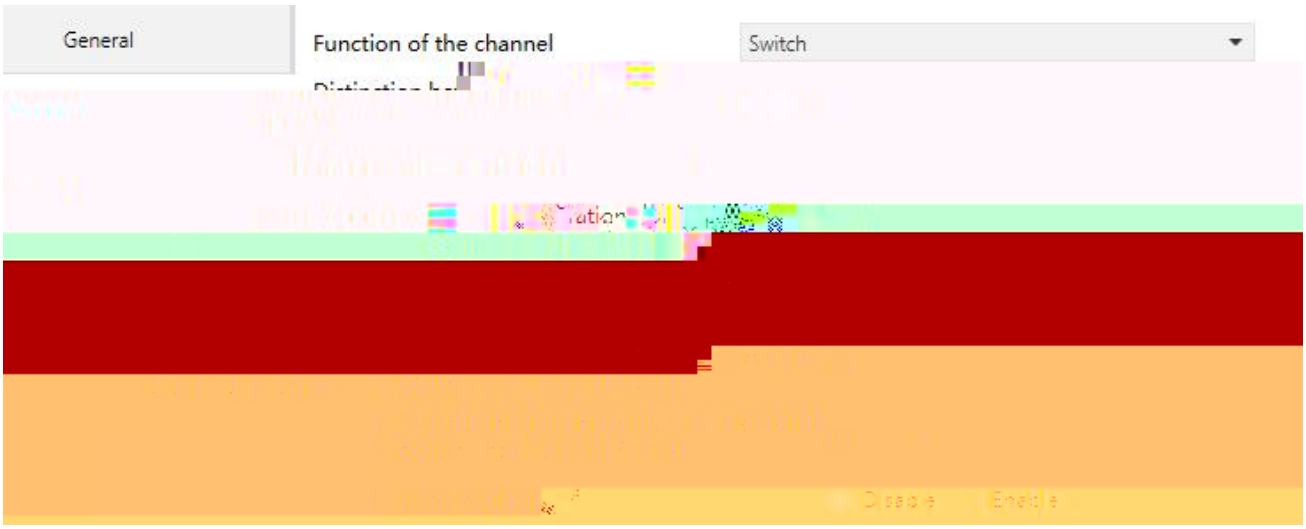
S

5.3

k

5.3.1 S

“Switch ” 5.14 k



5.14 “Rocker x- Switch”

D	b a a

/ k “Yes”

k

* L a a *0.1

/ k

k **3..25** k

R a a b / R a a a
b U /D R

/ / k k

N a

OFF

ON

TOGGLE

No action k

OFF k

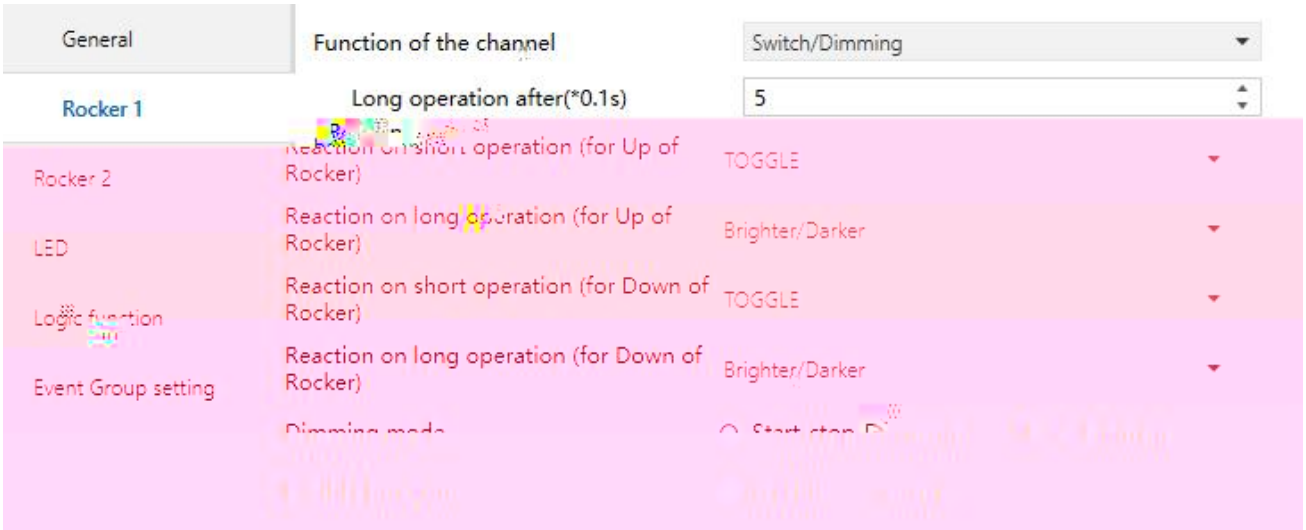
ON k

TOGGLE

k

5.3.2 S /D

“Switch/Dimming ” 5.15 k

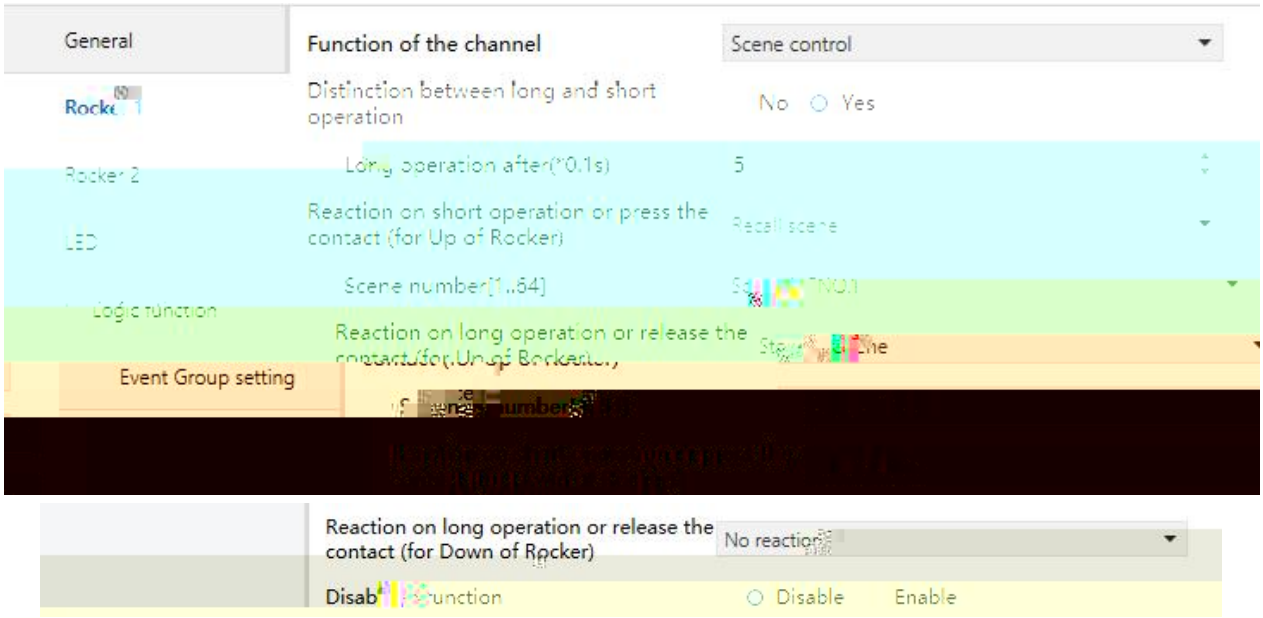


5.15 “Rocker x- Switch/Dimming”

KNX/E

5.3.3 S

“Scene control” 5.17 k



5.17 “Button x- Scene control”

D	b a a

/ k “Yes”

k

Y

N

` L a a *0.1	

/ k

k **3..25** k

R a a b / R a a a	
b U /D R	

/ / k

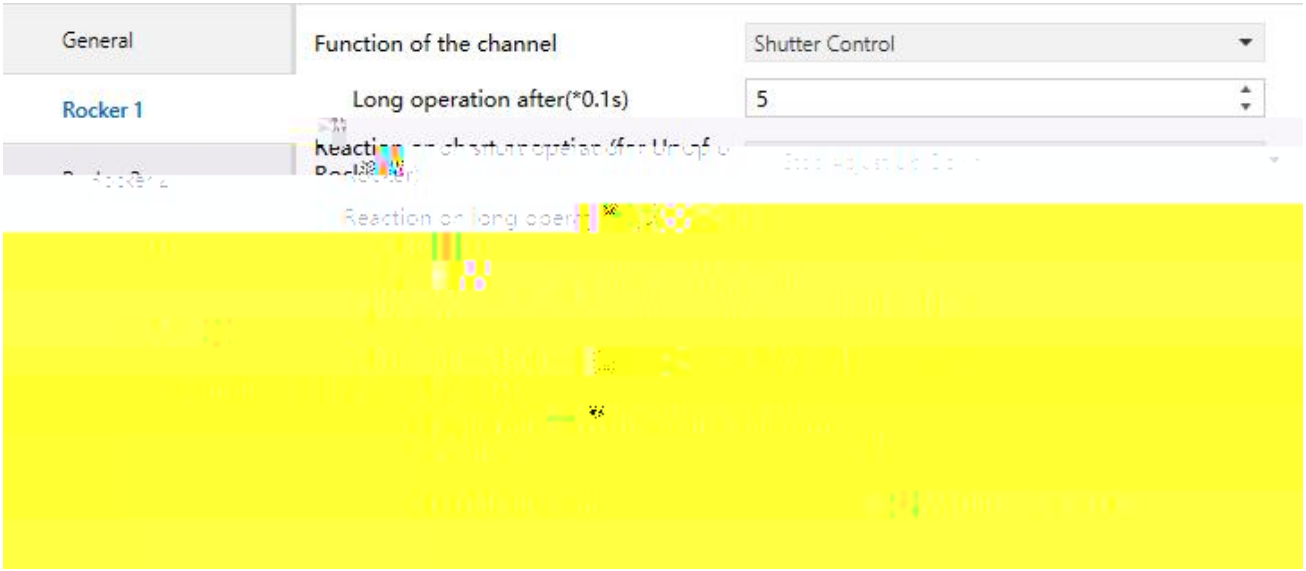
N a
R a
S

S b (1..64)

S NO.1 64 0 63 k

5.3.4 S

“Shutter control” 5.18 k



5.18 “Button x- Shutter control”

L a a *0.1

k

k **3..25** k

R a	/ a U /D R	

N a

U

D

U /D

S (A U)

S (A D)

S (A U /D)

“No reaction” k

“Up” k

“Down” k

“Up/Down” / k

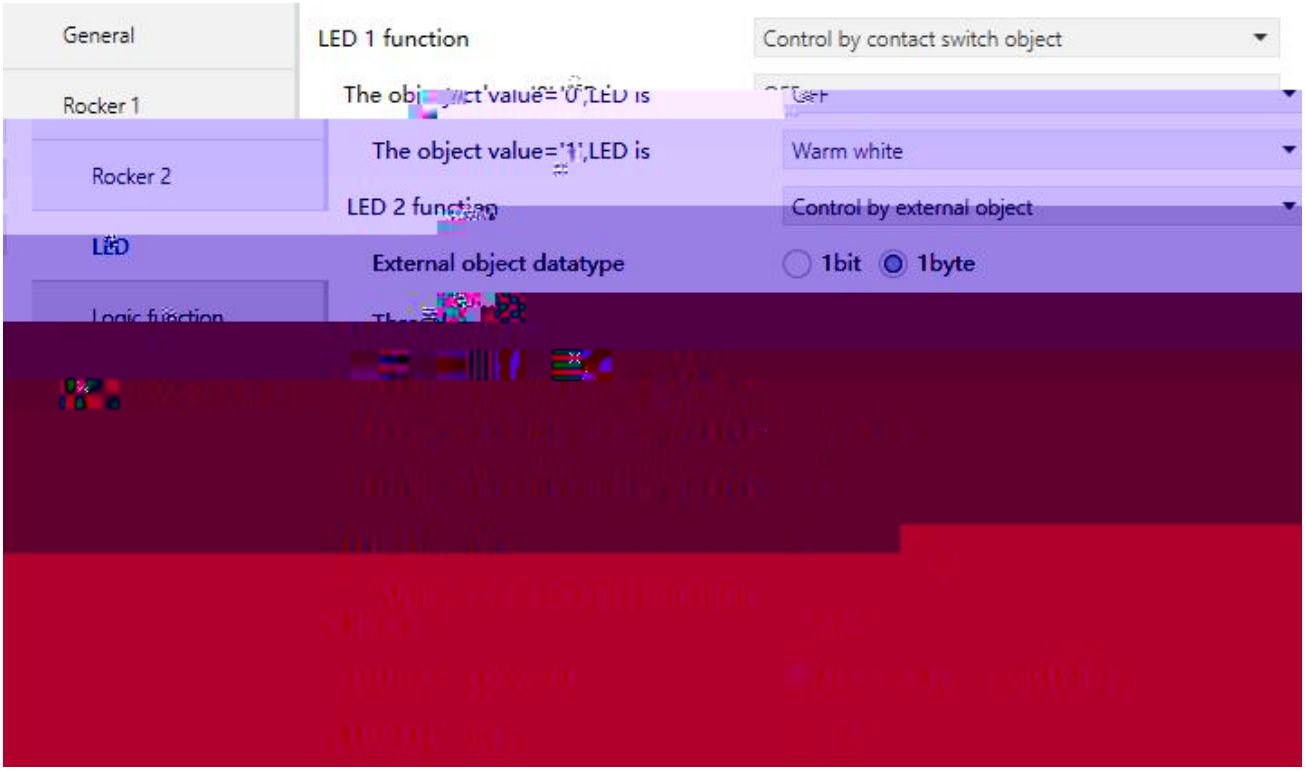
“Stop (Adjust Up)” k

“Stop (Adjust Down

5.4 LED

LED k LED LED

LED k



5.19 “LED”

LED X	

LED

Da ab

C b

KNX

l b	a = a , LED

LED Control by external object 1byte LED

k

OFF

Wa

C

l b	a > a , LED

LED Control by external object 1byte LED

k

OFF

Wa

C

W b , LED a

LED Indicate contact press LED

k

500

1

2

3

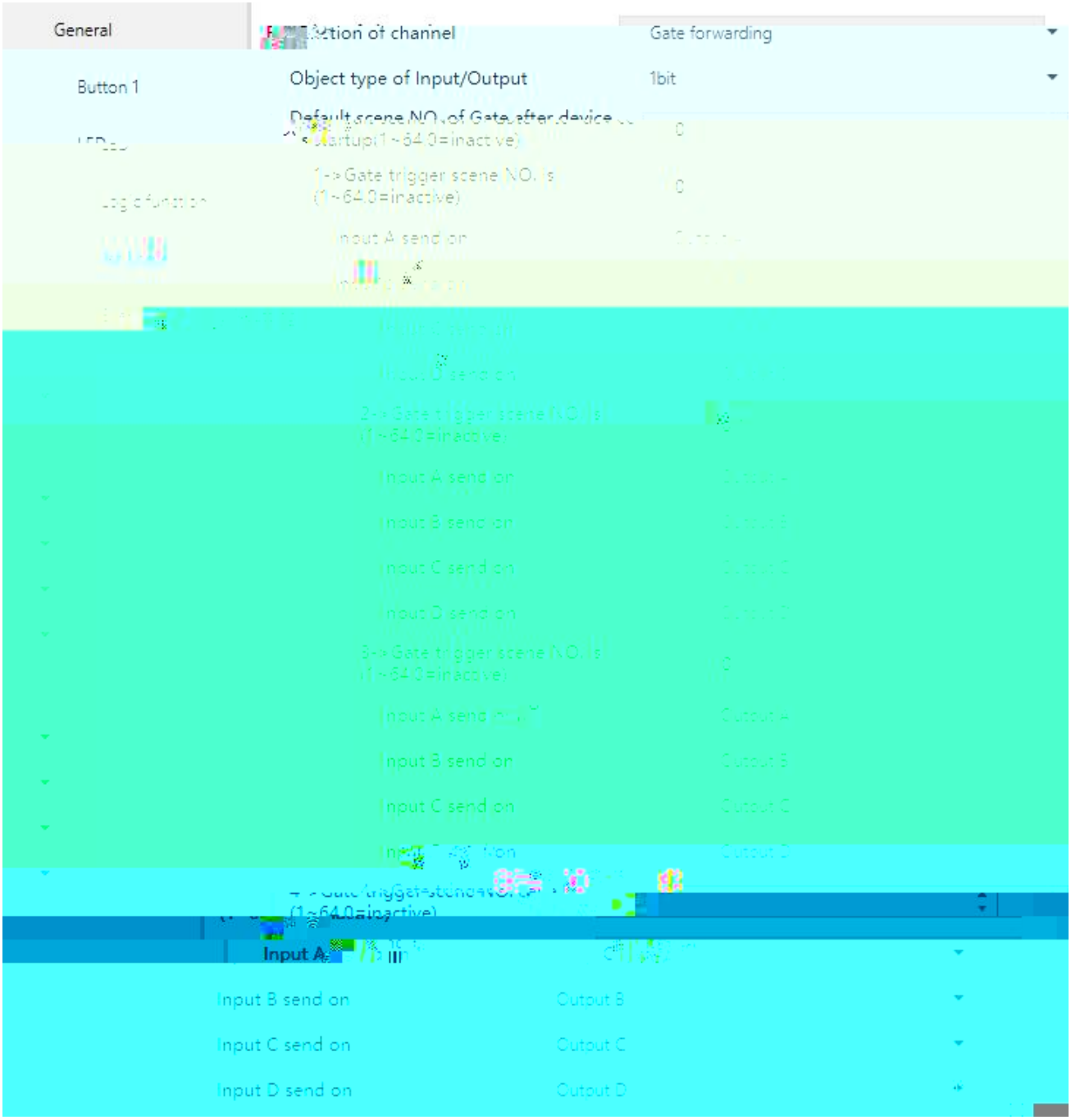
LED a	

LED Indicate contact press LED k

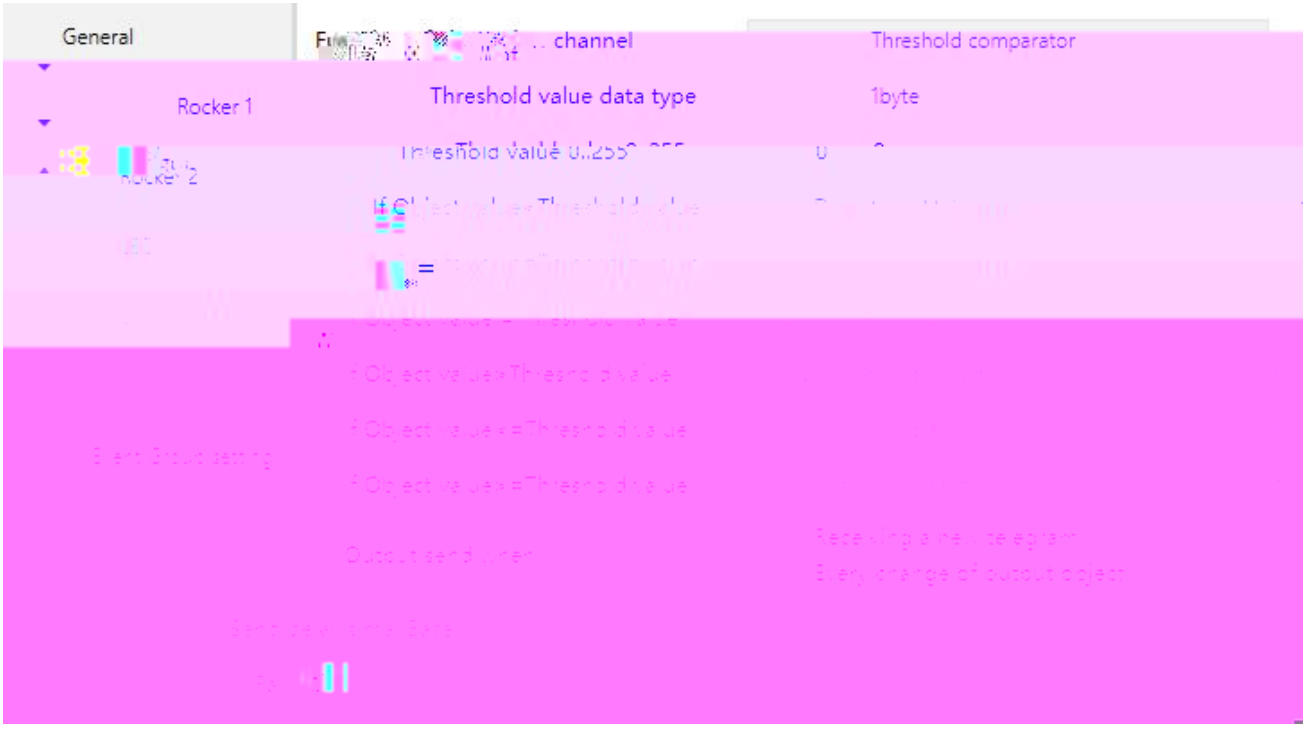
Wa

C

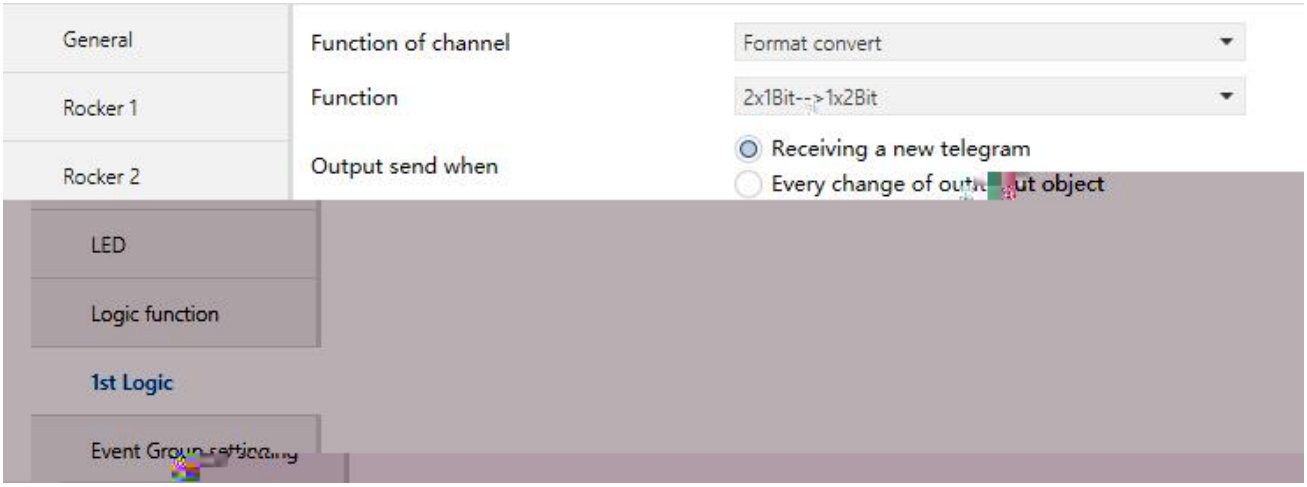
5.21 “Logic function -- AND/OR/XOR”



5.22 “Logic function -- Gate forwarding”



5.23 “Logic function -- Threshold comparator”



5.24 “Logic function -- Format convert”

F		a

k

D ab

AND

OR

XOR

Ga a

T a a

F a

AND/OR/XOR

k

5.5.1 AND/OR/XOR

AND/OR/XOR 5.21 k

I a/b/ / / / //

input x k

D

N a

I

Disconnected:

Normal

Inverted k

D a a

Input x k

0

1

R

k

N

Y

No:

Yes k

R a b a a b a

k

N

Y

O

k

R a a

E a b

Receiving a new telegram

Every change of output object k

k

Ba : N

0.1

10

25

Fa : 1..255

k Base x Factor

None k

5.5.2 Ga a

Gate forwarding 5.

I A/B/C/D

k

O A

O B

...

O C,D

O B,C,D

k

k

5.5.3 T a a

Threshold comparator 5.23 k

T a a a b

k

4b

1b

2b

4b

T a ---

k **4b**

I Ob a <T a

I Ob a =T a

I Ob a !=T a

I Ob a >T a

I Ob a <=T a

I Ob a >=T a

! ! ! !

k

D a

S a 0

S a 1

Do not send telegram:

Send value 0 / 1 0 1 k

k If Object value=Threshold value Send value “0”

If Object value<=Threshold value Send value “1”

1 k

0

k

R a a

E a b

Receiving a new telegram

Every change of output object k

k

S a

Ba : **N**

0.1

1

...

25

Fa : **1..255**

k Base x Factor Base

None k

5.5.4 F a

Format convert 5.24 k

F

k

2 1b -->1 2b

8 1b -->1 1b

1 1b -->1 2b

2 1b -->1 2b

1 1b -->8 1b

1 2b -->2 1b

1 4b -->2 2b

1 3b -->3 1b

3 1b -->1 3b

O

5.27 “G x: Output y Function”

E G F	:1 8

k

D ab

E ab

8 k 8 8

Ob	(:1 8)

y k

1b

1b

2b

->O	NO. (1 64 a	,0 a	) (:1 6)

y k 6 **0..64 0=**

Ob	a	(0..1/0..255/0 .65535)

y **1b 0..1/1b 0..255/ 2b 0..65535**

° D a	[0...63]*0.1 °

: **0..63** k

k

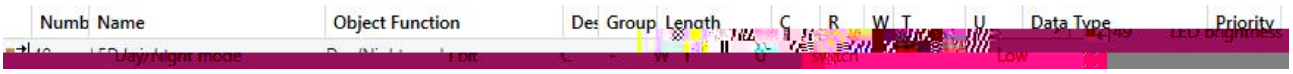
k

C **W**

R **T** **U**

k

6.1 G a

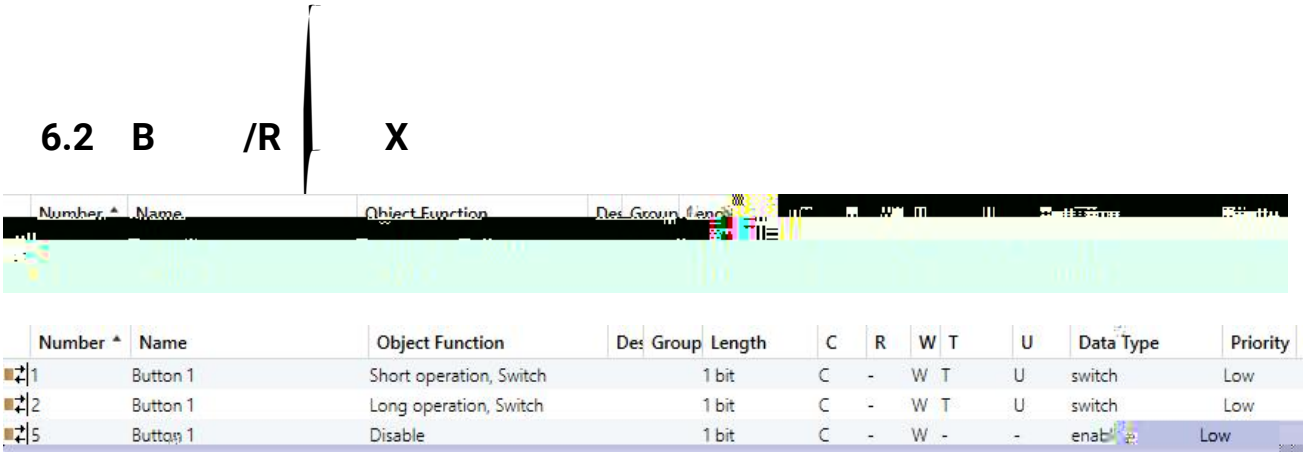


6.1 “General”

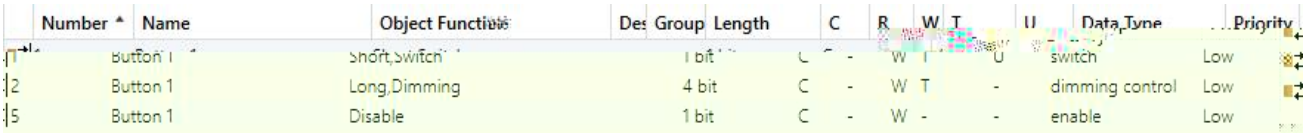
					DPT
49	**Da /N**	**LED b**	**1b**	**C,W,T,U**	**1.001 DPT_S**
		LED LED k			

6.1 “General”

6.2 B /R X



“Switch”

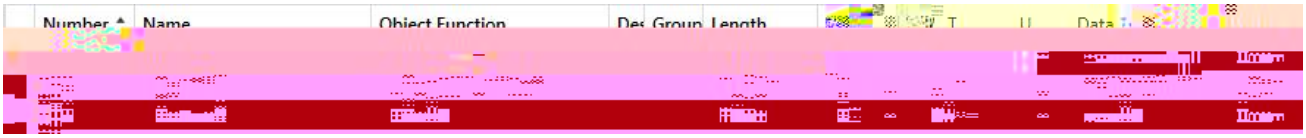


Number	Name	Object Function	Des	Group	Length	C	R	W	T	U	Data Type	Priority
2	Button 1	Long,Dimming			4 bit	C	-	W	T	-	dimming control	Low
5	Button 1	Disable			1 bit	C	-	W	-	-	enable	Low

"Switch/dimming"

Number	Name	Object Function	Des	Group	Length	C	R	W	T	U	Data Type	Priority
1	Button 1	Short/Press,1bit value			1 bit	C	-	-	T	-	switch	Low
2	Button 1	Long/Release,2bit value										

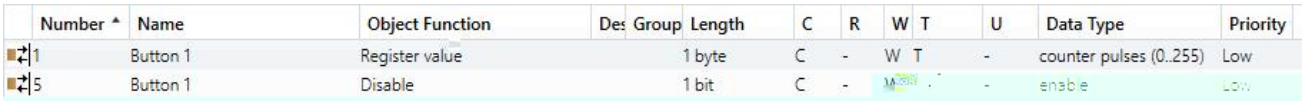
" Value/Force output"



"Scene control"

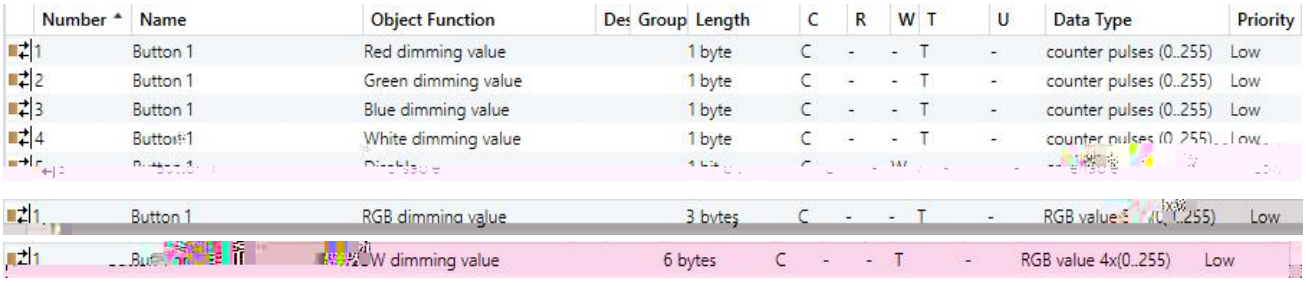
Number	Name	Object Function	Des	Group	Length	C	R	W	T	U	Data Type	Priority
1	Button 1	Up/Down,Blind			1 bit	C	-	-	T	-	up/down	Low
2	Button 1	Stop/Adjust,Blind				C	-	-	T	-	step	Low
	Button 1	Disable			1 bit	C	-	W	-	-	enable	Low

"Shutter control"



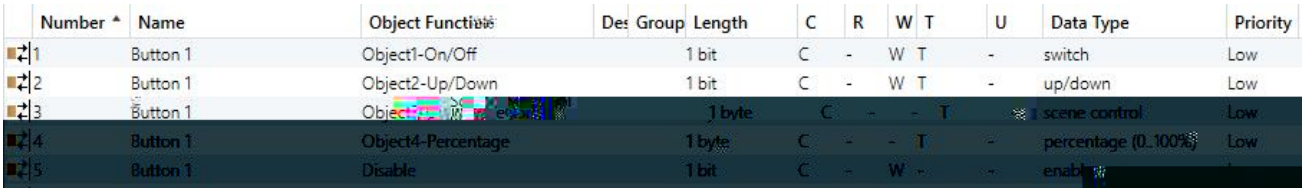
Number	Name	Object Function	Des	Group	Length	C	R	W	T	U	Data Type	Priority
1	Button 1	Register value			1 byte	C	-	W	T	-	counter pulses (0..255)	Low
5	Button 1	Disable			1 bit	C	-			-	enable	Low

"Shift register"



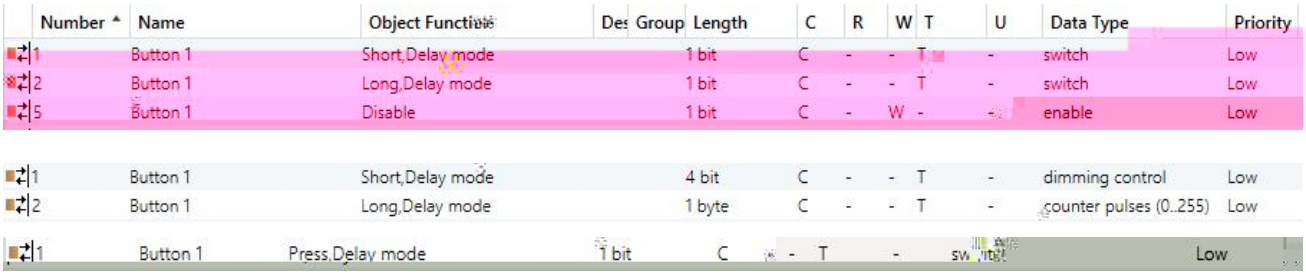
Number	Name	Object Function	Des	Group	Length	C	R	W	T	U	Data Type	Priority
1	Button 1	Red dimming value			1 byte	C	-	-	T	-	counter pulses (0..255)	Low
2	Button 1	Green dimming value			1 byte	C	-	-	T	-	counter pulses (0..255)	Low
3	Button 1	Blue dimming value			1 byte	C	-	-	T	-	counter pulses (0..255)	Low
4	Button 1	White dimming value			1 byte	C	-	-	T	-	counter pulses (0..255)	Low
1	Button 1	RGB dimming value			3 bytes	C	-	-	T	-	RGB value	Low
1	Button 1	RGBW dimming value			6 bytes	C	-	-	T	-	RGB value 4x(0..255)	Low

"RGB dimming"



Number	Name	Object Functio	Des	Group	Length	C	R	W	T	U	Data Type	Priority
1	Button 1	Object1-On/Off			1 bit	C	-	W	T	-	switch	Low
2	Button 1	Object2-Up/Down			1 bit	C	-	W	T	-	up/down	Low
3	Button 1	Object3-			1 byte	C	-	-	T	-	scene control	Low
4	Button 1	Object4-Percentage			1 byte	C	-	-	T	-	percentage (0..100%)	Low
5	Button 1	Disable			1 bit	C	-	W	-	-	enable	Low

“Multiple operation”



Number	Name	Object Functio	Des	Group	Length	C	R	W	T	U	Data Type	Priority
1	Button 1	Short,Delay mode			1 bit	C	-	-	T	-	switch	Low
2	Button 1	Long,Delay mode			1 bit	C	-	-	T	-	switch	Low
5	Button 1	Disable			1 bit	C	-	W	-	-	enable	Low
1	Button 1	Short,Delay mode			4 bit	C	-	-	T	-	dimming control	Low
2	Button 1	Long,Delay mode			1 byte	C	-	-	T	-	counter pulses (0..255)	Low
1	Button 1	Press,Delay mode			1 bit	C	-	-	T	-	sw	Low

“Delay mode”

6.2 “Button/Rocker X”

					DPT	
1	**P / a , S**	**B /R X**	**1b**	**C,W, T,U**	**1.001 DPT_S**	
1	**S a , S**	**B /R X**	**1b**	**C,W, T,U**	**1.001 DPT_S**	
2	**L a , S**	**B /R X**	**1b**	**C,W, T,U**	**1.001 DPT_S**	
k Press/release,Switch k Short/Long operation k						
1	**S , S**	**B /R X**	**1b**	**C,W, T,U**	**1.001 DPT_S**	
k 0 ˚ ˚ 1 ˚ ˚						
2	**L , D**	**B /R X**	**4b**	**C,W,T**	**3.007 DPT_D**	
k 1~7 1 7 0 9~15 9 15 8 k						

1	S /P ,1b /2b /4b / 1b /2b a	B /R X	1b /2b /4b / 1b /2b	C,T	1.001 DPT_S 2.001 DPT_S
2	L /R a , 1b /2b /4b /1b / 2b a	B /R X	1b /2b /4b / 1b /2b	C,T	3.007DPT_D 5.010 DPT_ 7.001 DPT_

“Reaction on short operation or press the button”/ “Reaction on long operation or release the button” k

1	S /P ,	B /R X	1b	C,T	18.001 DPT_S C
2	L /R a ,	B /R X	1b	C,T	18.001 DPT_S C

8bit k 8bit k

8bit ( ) FXNNNNNN

F: ‘0’ ‘1’

X 0

NNNNNN 0...63 k

1~64 “Scene” 0~63 k 1 “Scene” 0 k

0 1 2 ... 63	1 2 3 ... 64

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

1 U /D , B B /R X 1b C,T 1.008 DPT_ /

/ k

0˚ ˚ /

1˚ ˚ /

2 S /A ,B B /R X 1b C,T 1.007 DPT_S

k

1 R a B X 1b C,T 5.010 DPT_

k

1 R a B X 1b C,T -

1	RGBW a	B X	6b	C,T	251.600 RGB a 4 (0..255)

RGBW k R( ) k

6 RGBW U8 U8 U8 U8 R8 R4 B4

6MSB	5	4	3	2	1LSB
R	G	B	W		R G B W
UUUUUUUU	UUUUUUUU	UUUUUUUU	UUUUUUUU	00000000	0000BBBB

R:

G:

B:

W:

mR: , 0= , 1=

mG: , 0= , 1=

mB: , 0= , 1=

mW: , 0= , 1= k

1	Ob -O /O Ob -U /D Ob -S C Ob -P a Ob -U a	B X	1b 1b 1b 1b 1b	C,W,T C,W,T C,T C,T C,T	1.001 DPT_S 1.008 DPT_ 18.001 DPT_S C 5.001 DPT_S a 5.010 DPT_

4 x=1,2,3,4 4

k

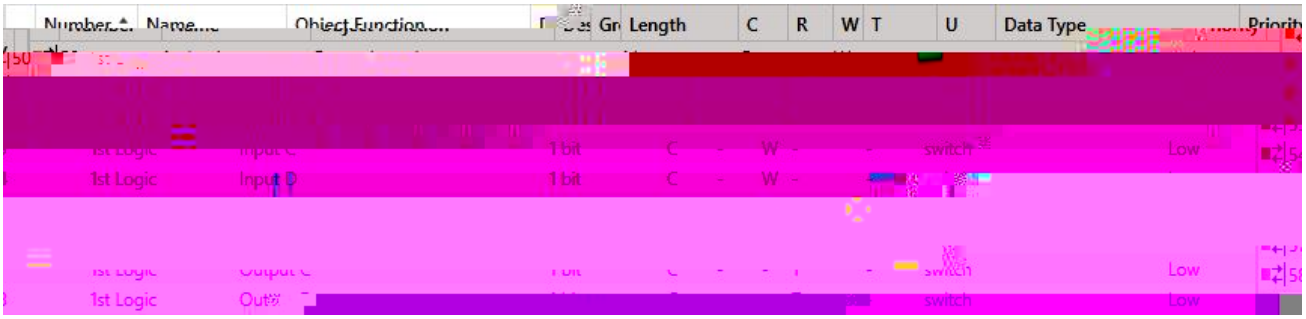
1	S /L , D a	B X	1b	C,T	1.001 DPT_S

, / k

6.4

6.4.1 AND/OR//XOR

6.4.2 Ga a



6.4 Gate forwarding

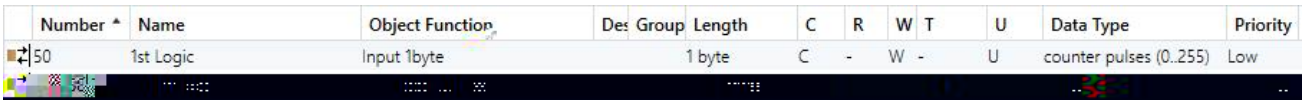
					DPT
50	**Ga a**	**1 /.../8 L**	**1b**	**C,W**	**17.001 DPT_S N b**
k					
51..54	**I**	**1 /.../8 L**	**1b** **4b** **1b**	**C,W**	**1.001 DPT_** **3.007 DPT_** **5.010 DPT_**
Input x k					
55..58	**O**	**1 /.../8 L**	**1b** **4b** **1b**	**C,T**	**1.001 DPT_** **3.007 DPT_** **5.010 DPT_**
k					k

6.4 Gate forwarding

6.4.3 T a a

Number	Name	Object Function	Des	Gr	Length	C	R	W	T	U	Data Type	Priority
50	1st Logic	Threshold value input			4 bit	C	-	W	-	U	dimming control	Low
58	1st Logic	Logic result			1 bit	C	-	-	T	-	boolean	Low

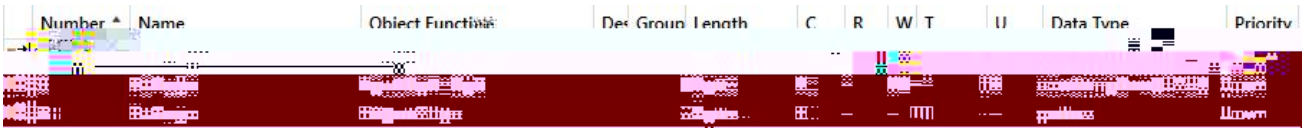
6.5 Threshold comparator



Number	Name	Object Function	Des	Group	Length	C	R	W	T	U	Data Type	Priority
50	1st Logic	Input 1byte			1 byte	C	-	W	-	U	counter pulses (0..255)	Low

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

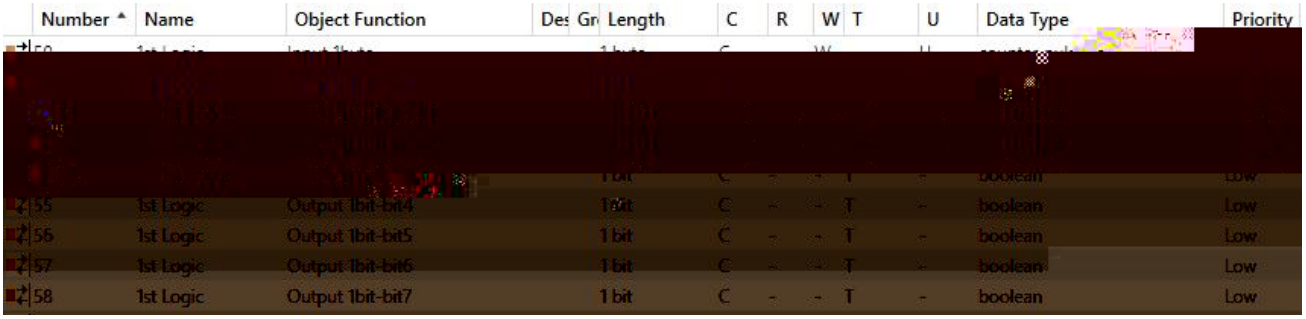
k



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

Number	Name	Object Function	Des	Gr	Length	C	R	W	T	U	Data Type	Priority
50												

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

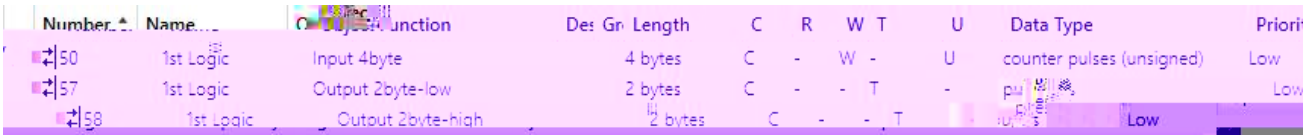


Number	Name	Object Function	Des	Gr	Length	C	R	W	T	U	Data Type	Priority
55	1st Logic	Output 1bit-bit4			1 bit	C	-	-	T	-	boolean	Low
56	1st Logic	Output 1bit-bit5			1 bit	C	-	-	T	-	boolean	Low
57	1st Logic	Output 1bit-bit6			1 bit	C	-	-	T	-	boolean	Low
58	1st Logic	Output 1bit-bit7			1 bit	C	-	-	T	-	boolean	Low

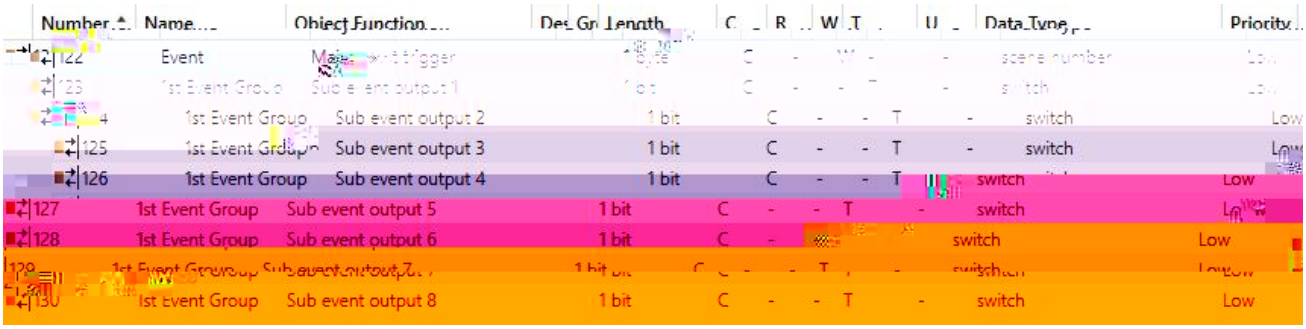
1x1byte --> 8x1bit 1 1byte 8 1bit Input 1byte=200 --> Output bit0=0, bit1=0, bit2=0, bit3=1, bit4=0, bit5=0, bit6=1, bit7=1

Number	Name	Object Function	Des	Gr	Length	C	R	W	T	U	Data Type	Priority
50	1st Logic	Input 2byte			2 bytes	C	-	W	-	U	pulses	Low
57	1st Logic	Output 1byte-low			1 byte	C	-	-	T	-	counter pulses (0..255)	Low
58	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)



1x4byte --> 2x2byte 1 4byte 2 2byte Input 4byte = 78



Number	Name	Object Function	Des.	Length	C	R	W	T	U	Data Type	Priority
122	Event	Ma			C	-	W	-	-	scene number	Low
123	1st Event Group	Sub event output 1		1 bit	C	-	-	T	-	switch	Low
124	1st Event Group	Sub event output 2		1 bit	C	-	-	T	-	switch	Low
125	1st Event Group	Sub event output 3		1 bit	C	-	-	T	-	switch	Low
126	1st Event Group	Sub event output 4		1 bit	C	-	-	T	-	switch	Low
127	1st Event Group	Sub event output 5		1 bit	C	-	-	T	-	switch	Low
128	1st Event Group	Sub event output 6		1 bit	C	-	-	T	-	switch	Low
129	1st Event Group	Sub event output 7		1 bit	C	-	-	T	-	switch	Low
130	1st Event Group	Sub event output 8		1 bit	C	-	-	T	-	switch	Low

6.7

DPT

122	**Ma**		**E**		**1b**	**C,W**	**17.001 DPT_**	**b**
						k	0..63	
					1b		**1.001 DPT_S**	
123/../130	**S b**	**1..8**	**1**	**/.../8 E G**	**1b**	**C,T**	**5.010 DPT_**	
					2b		**7.001 DPT_**	