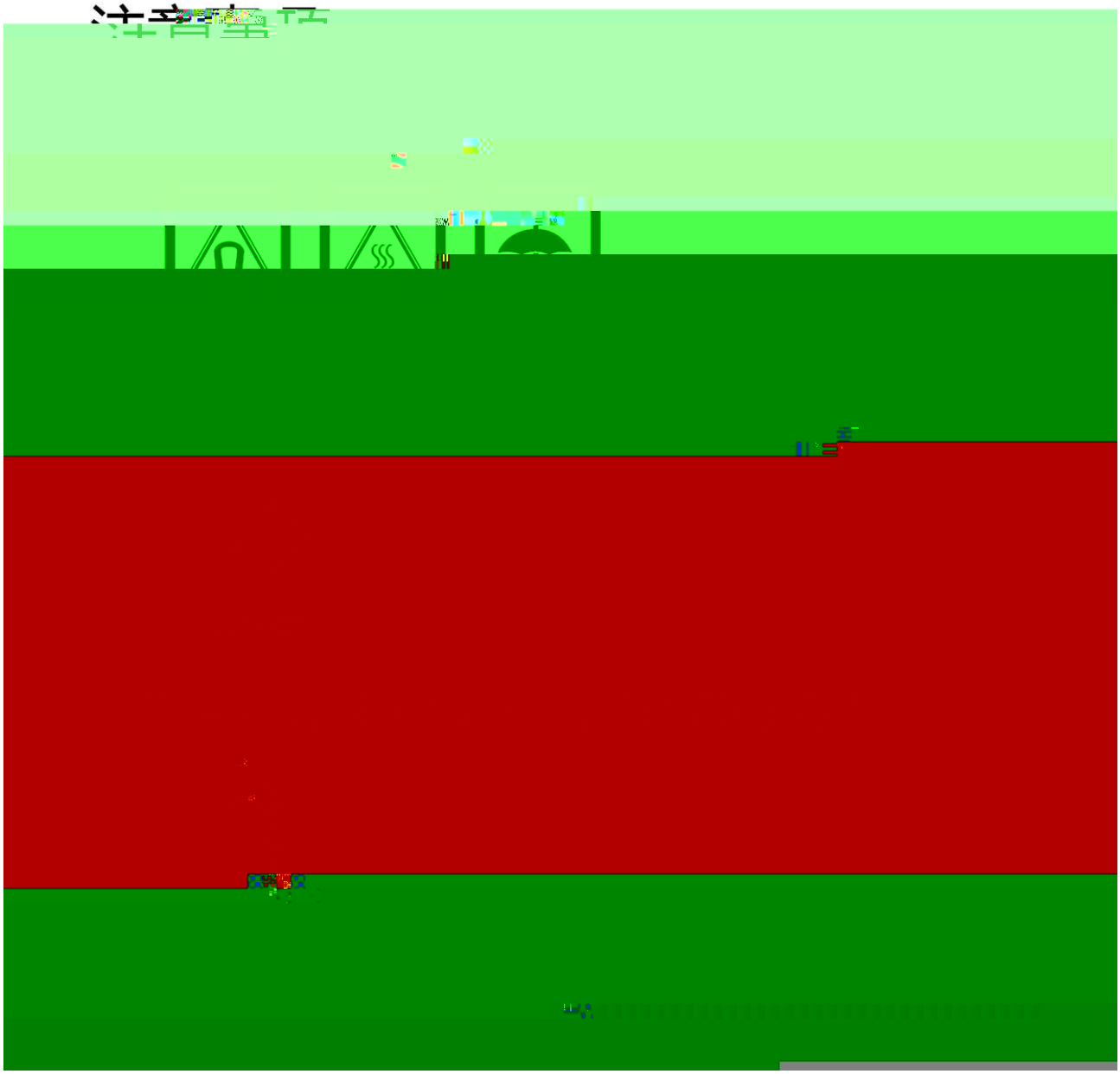
K-BUS



KNX 4 16A 1-10V

k

DC 1-10V 1~10V

1~10V LED ! !

k 4 k

! ! ! k

1-100%

k

k

4 35 DIN

KNX k

knxprod ETS ETS5 k

!

/

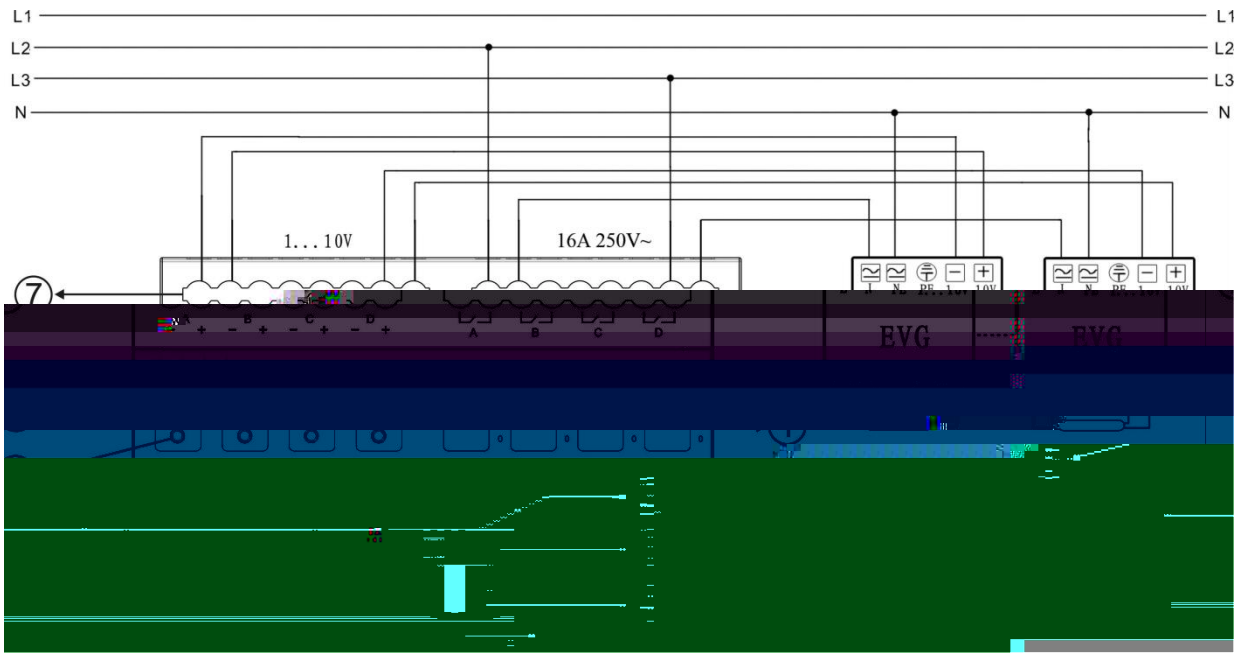
k

k

k

k

	21-30V DC KNX
	<9mA/24V <8.5mA/30V <255mW <20mA
	/
	1~10V DC max.100mA 16A /250V AC
KNX	KNX
	16 8 4 1~10V 1~10V 8 4
LED	
LED	
	-5 °C ... + 45 °C
	- 25 °C ... + 55 °C -25 °C ... + 70 °C
	<93%,
IP 20	
	35mm 144 × 90 × 64 mm 0.5kg



F

F

LED LED

KNX

/

LED

!

k

1bit

1% φ 100% k

k

k k

0 k

4bit k 1 0

k

1 φ 7 0 ! 8 9 φ 15

	0	1	2	3	4	5	6	7
	/	255	128	64	32	16	8	4

	8	9	10	11	12	13	14	15
	/	255	128	64	32	16	8	4

k

15 1 φ 15 k

k k 1

k

1bit 1bit

k 2

k

k

k

20% k

! ! 20% k

1bit

k

1

1

8

20% 0

0 20% k

1

0 20% k

0

m4ÉU#3 Jˆ k (1 0)

k

k

k

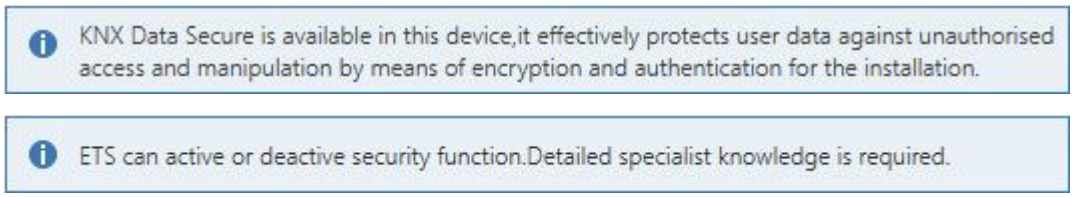
Switch = 1 k

KNX 4 16A 1-10V KNX KNX k

k

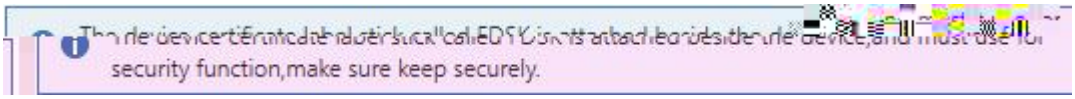
5.1 (1) “KNX Secure”

KNX KNX ETS 5.1(1)



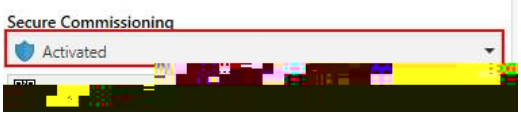
KNX

k ETS k k

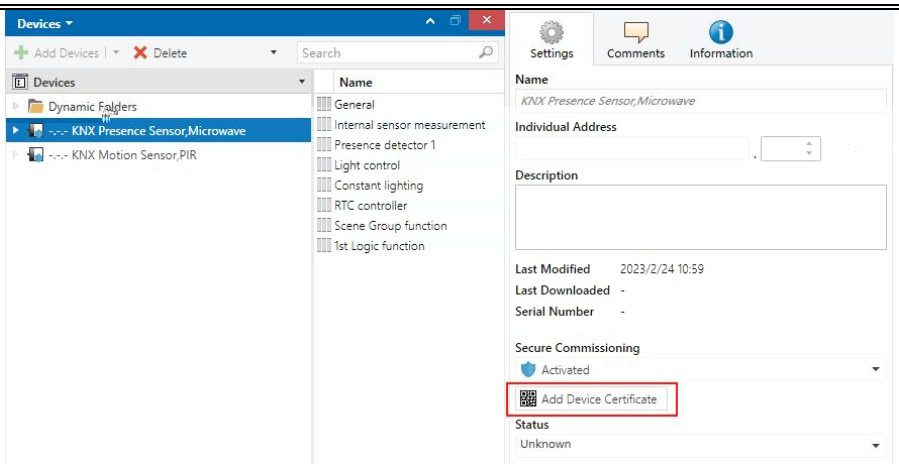


FDSK k

ETS



KNX/EI



5.1(4) Add Device Certificate

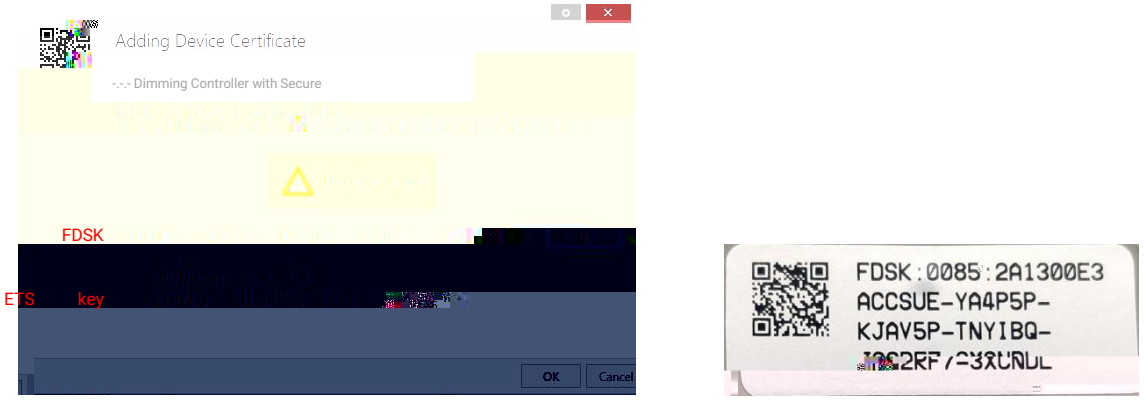
FDSK k

k

FDSK FDSK ETS 5.1(5) k

ETS

FDSK k

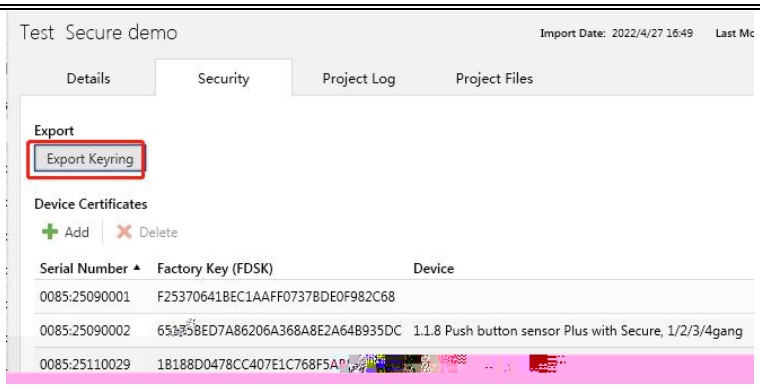


5.1(5)

k

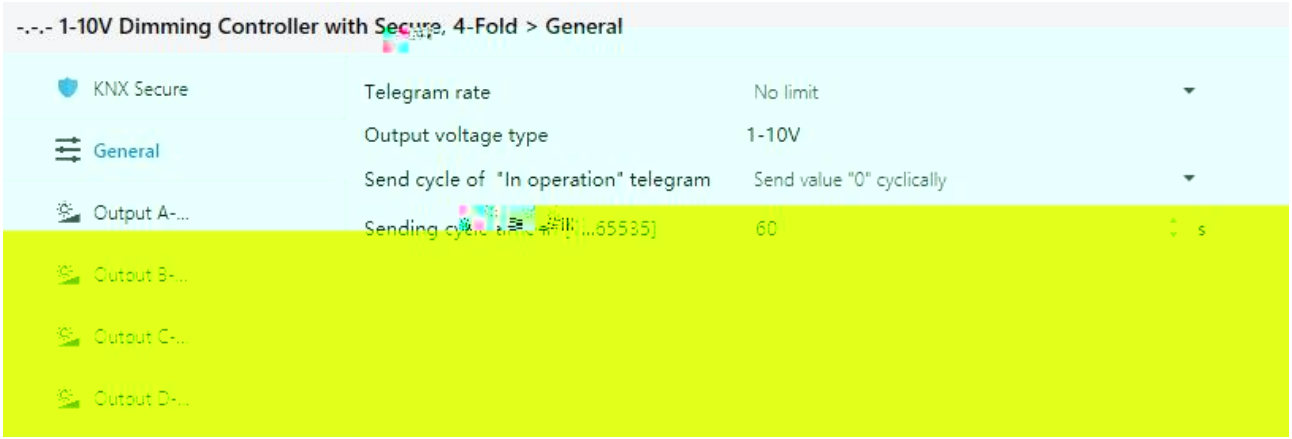
5.1(6) “Yes” “Add Device Certificate” FDSK

KNX/EI



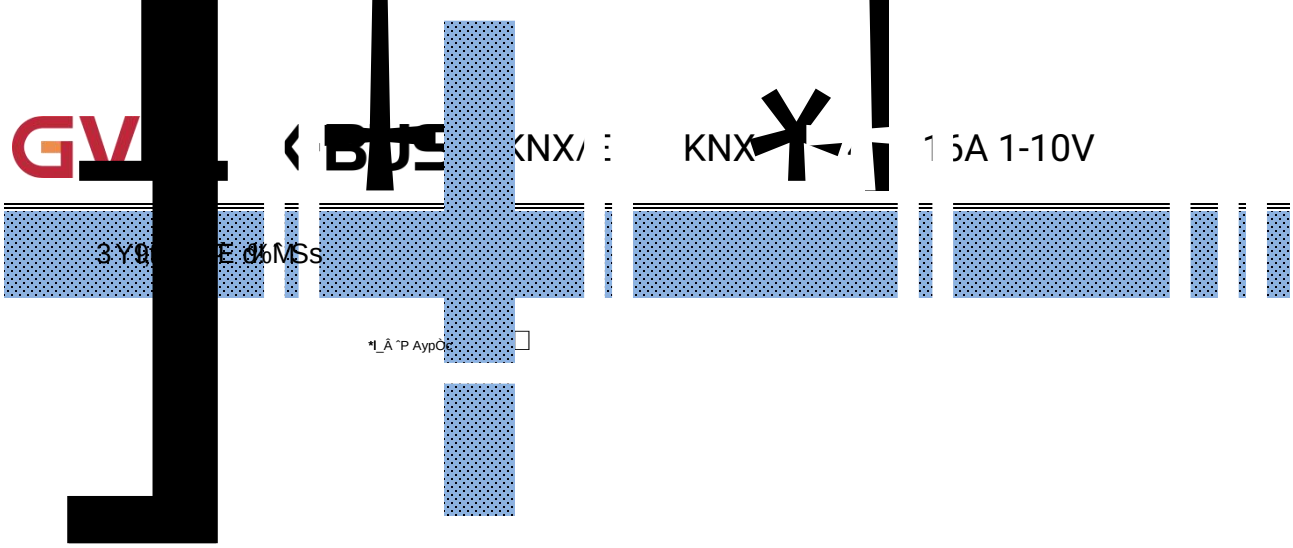
5.1(8)

k



5.2 “General”

No limit k


KNX/
KNX
1 5A 1-10V

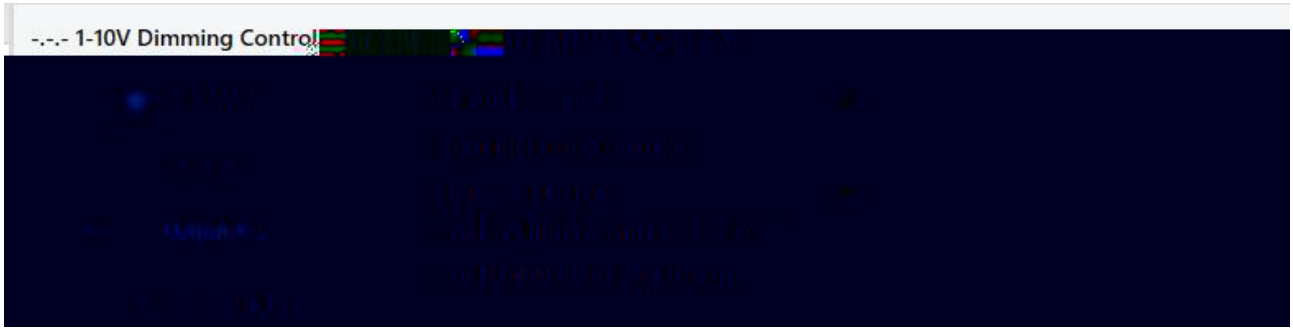
k

k

“Output X” 5.4 k X k

“X” k

k



5.4 “Output X”

k

k

30 k

5.5.1 “X: Dimming general”

k

Brightness Switch Dimming on Dimming off

k

”Switch” k

Preset brightness value Switch “Preset switch on brightness”

k switch

k “X: Dimming”

5.5.2 k

Last brightness Switch 0 Switch

Switch 128

Switch k

“Switch”

“Switch” ON k

Dimming on ”Time duration of dimming time” k

Switch on softly 4s k

“Brightness” k

Dimming on ”Time duration of dimming time” k

Switch on softly 4s k

“Switch” k

Dimming off ”Time duration of dimming time” k

Switch off softly 4s k

Switch off instantly 0 k

k

Preset brightness value “Bus recover preset brightness value”

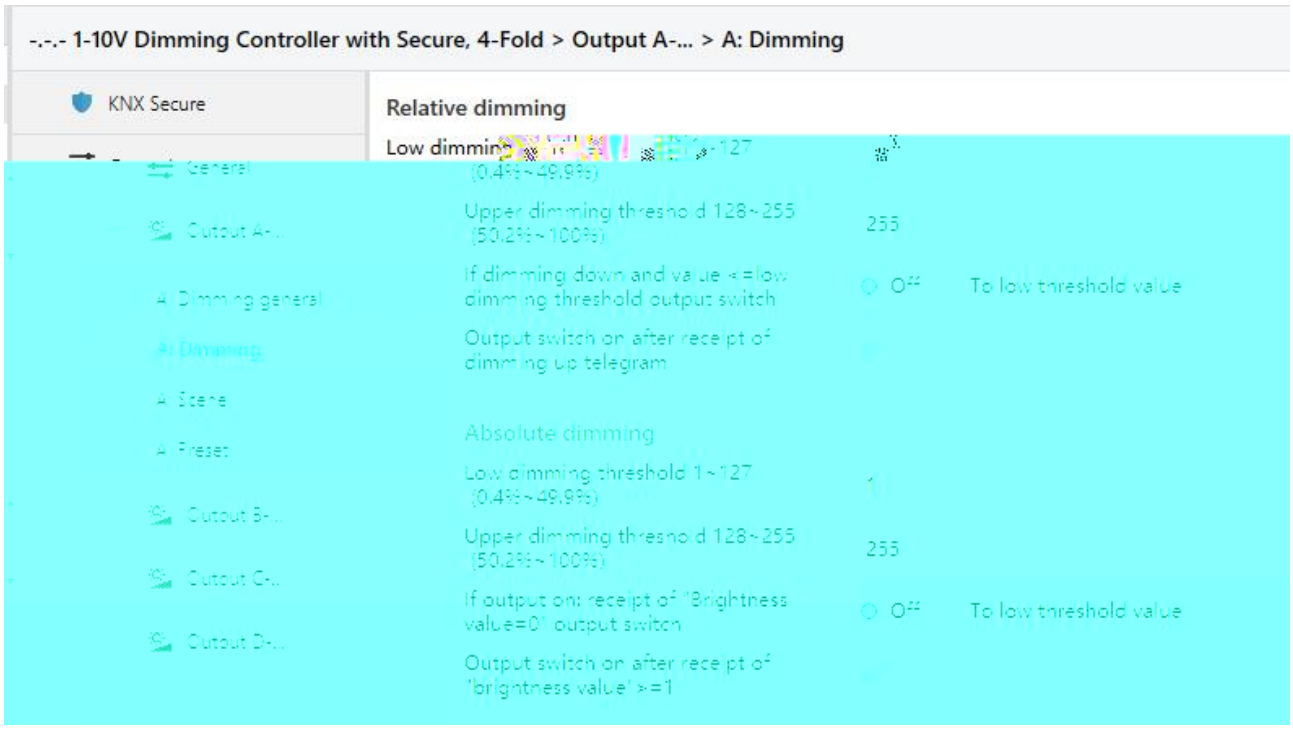
k

k

“X: Dimming” 5.5.2 k

Last brightness value k

k



5.5.2 “X: Dimming”

X dimming” 5.5.2 k Brightness

Brightness Relative dimming Brightness value( ) k

1~127 0.4% φ

49.9%) k

50 50 50 k

128~255 50.2% φ 100%) k

200 200 200 k

KNX/EIB KNX 4 16A 1-10V

1~127 k k 0

50 200 30 50 60

50 60 100 30 100 50

50 k

128~255 k 50 200

200 200 k

0

“Off” 0 0 “To low threshold value” 0

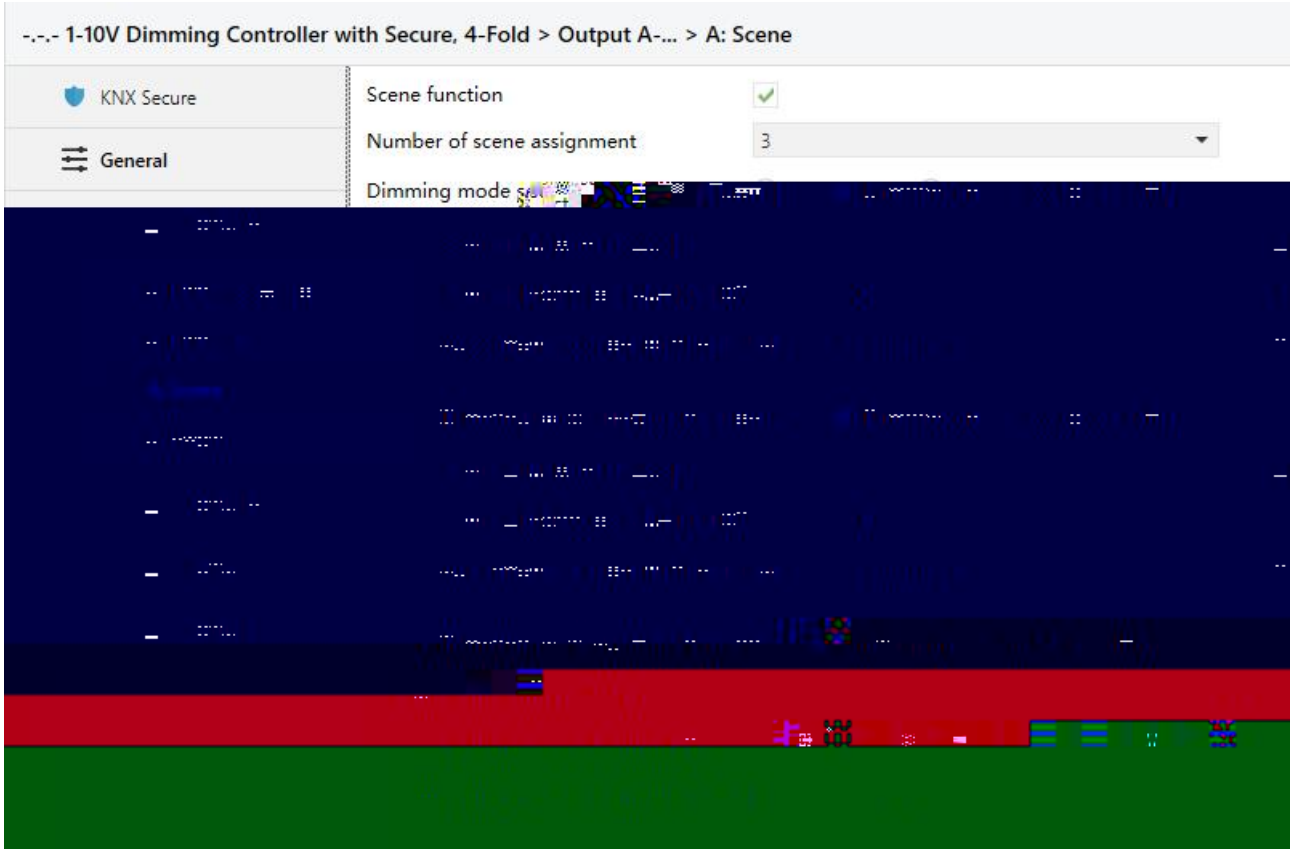
k

0 Brightness k

0 100 k 0 k

1

k



5.5.3 “X: Scene”

“X: Scene” 5.5.3 15 k 15

k

k

15 k

15 k

k Y 1~15 Y k

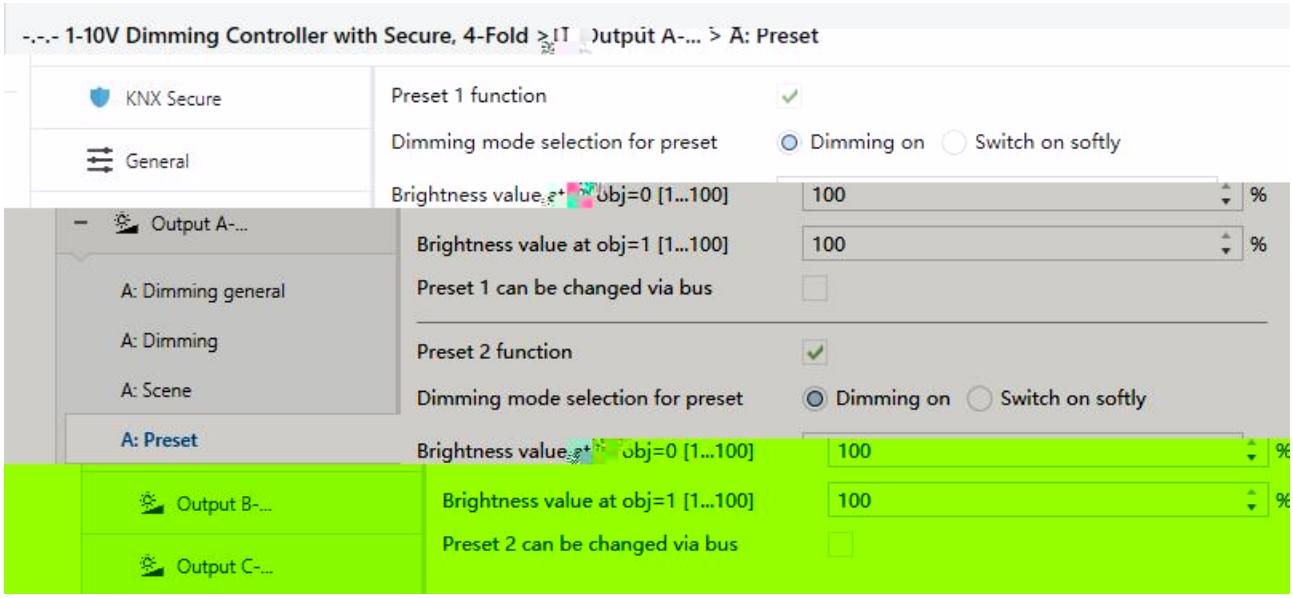
Dimming on ”Scene Y duration” k

Switch on softly 4s k

“Scene/save”

k

G c' 4fHJdS



5.5.4 “X: Preset”

“X: Preset” 5.5.4 2 Preset 1

Preset 2 k

(Preset 1)

k k

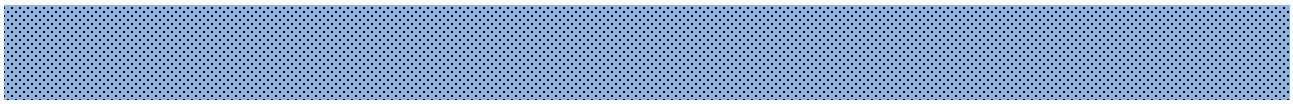
preset 1 k

“Preset 1” “Preset 1” 1bit “0” “1”

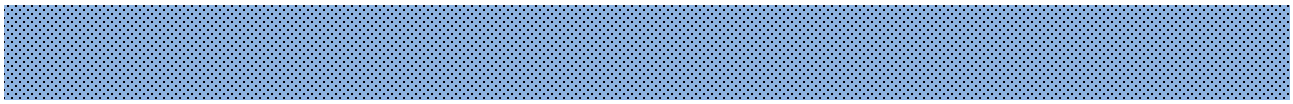
k

Dimming on ”Time duration of dimming time” k

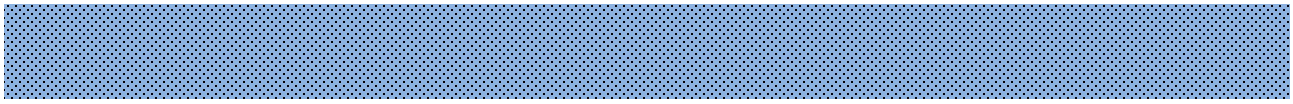
Switch on softly 4s k



“Preset 1” “0”



“Preset 1” “1”



k

“Set preset 1” k “Set preset 1”

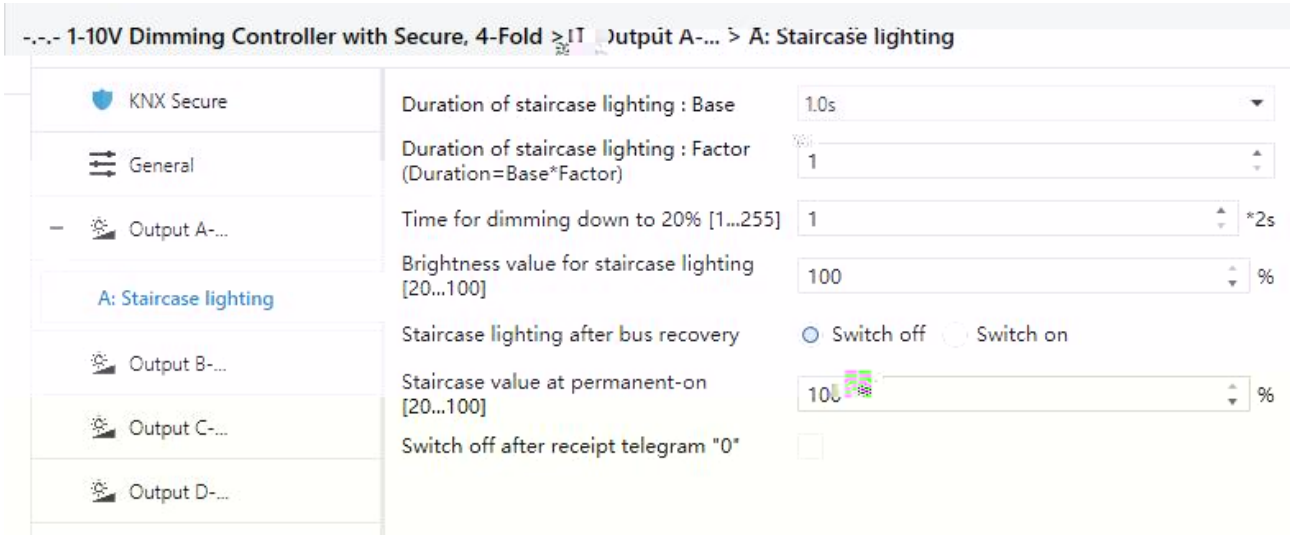
k

“0” “Brightness value at obj=0”

“1” “Brightness value at obj=1”

k

5.6 k



5.6 “X: Staircase lighting”

Base

Factor

“Switch” Duration = Base * Factor

20% k

k

20% k 20s 100%

20% 100-20 %*20s=16s k

“Switch”

k

Switch on “Switch” Duration = Base *

Factor “Time for dimming down to 20%” k

Switch off k

“Permanent on” “Permanent on”

“Time for dimming down to 20%”

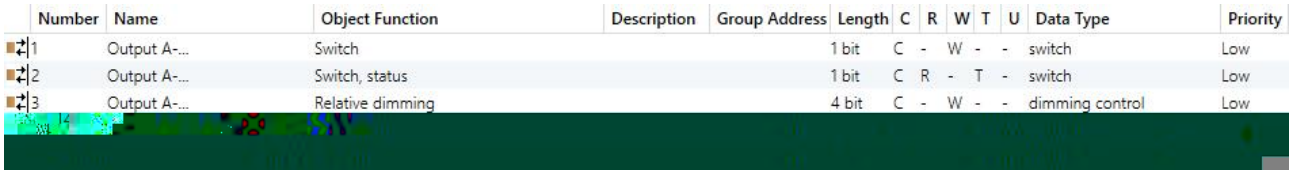
20% k

Switch Permanent on “Switch”

“Permanent on” “Permanent on”

“Permanent on” k

k



Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
1	Output A-...	Switch			1 bit	C	-	W	-	-	switch	Low
2	Output A-...	Switch, status			1 bit	C	R	-	T	-	switch	Low
3	Output A-...	Relative dimming			4 bit	C	-	W	-	-	dimming control	Low

6.2

					DPT
k “1” “0” k Description (max.30 char.) Output A-... k					
switch k switch 0 “1” 0 “0” k “Send switch status after change” “It’s new status” k					
1~7 1 7 0 9~15 9 15 8 k					
0 “0” k					

k

“Brightness value OBJ transmit after dimming” “Transmit new brightness” k

6.2

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
7	Output A-...	Scene/save			1 byte	C	-	W	-	-	scene control	Low

6.3

					DPT

8bit k

k 8bit k

8bit ( ) FXNNNNNN

F: “0” “1”

X

NNNNNN 0...63 k

1~64 k

6.3

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
8	Output A-...	Preset 1			1 bit	C	-	W	-	-	scene	Low
9	Output A-...	Set preset 1			1 bit	C	-	W	-	-	scene	Low
10	Output A-...	Preset 2			1 bit	C	-	W	-	-	scene	Low
11	Output A-...	Set preset 2			1 bit	C	-	W	-	-	scene	Low

6.4

					DPT
1 “0” “Brightness value at obj=0” “1” “Brightness value at obj=1” k Preset 1 k					
1 “Preset 1 can be set via the bus” k “0” “Brightness value at obj=0” k “1” “Brightness value at obj=1” k					
2 “0” “Brightness value at obj=0” “1” “Brightness value at obj=1” k Preset2 k					
2 “Preset 2 can be set via the bus” k					

“0”
“Brightness value at obj=0” k “1” “Brightness value at obj=1” k

6.4

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
1	Output A-...	Switch			1 bit	C	-	W	-	-	switch	Low
6	Output A-...	Permanent on			1 bit	C	-	W	-	-	switch	Low

6.5

					DPT
k “1” “Duration of staircase lighting Base” “Duration of staircase lighting Factor” Duration = Base * Factor k “0” k					
“1” “0” k					

6.5