K-BUS KNX

Switch Actuator with Secure_V1.3

ARSA-04/16.S

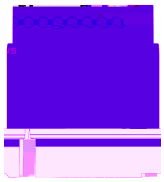
ARSA-08/16.S

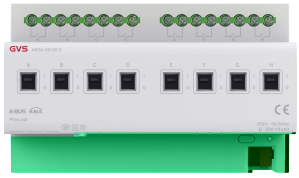
ARSA-12/16.S

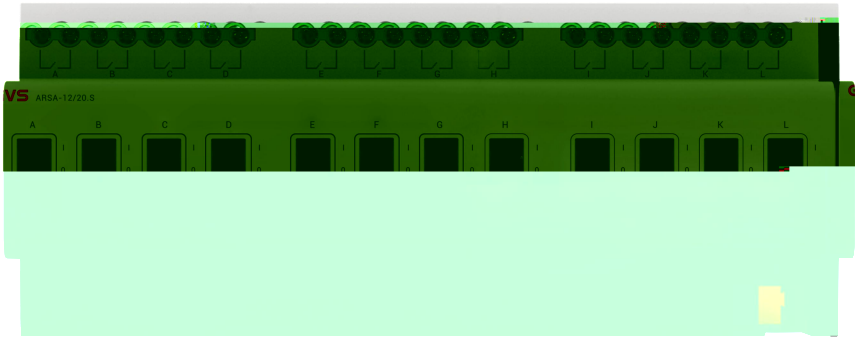
ARSA-04/20.S

ARSA-08/20.S

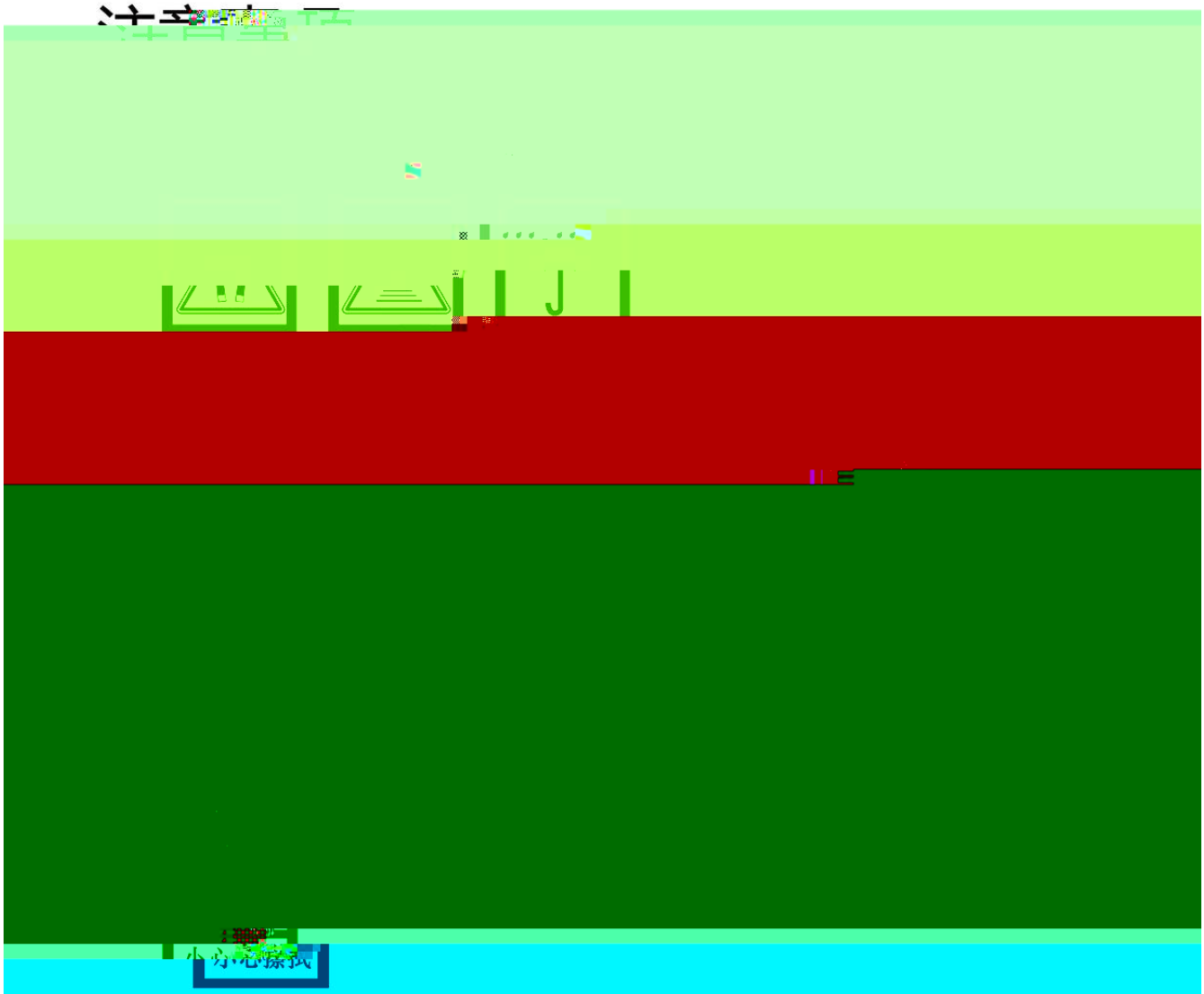
ARSA-12/20.S







KNX/EIB



4、请勿自行拆卸本设备。

1

6

3.1. 6

3.2. 7

3.2.1. AR 7

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3.2.3. ARSA-12/ 8

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5.3.3. “Heating actuator” ---------- 53

5.3.4. “Heating actuator” ---------- 53

---------- 54

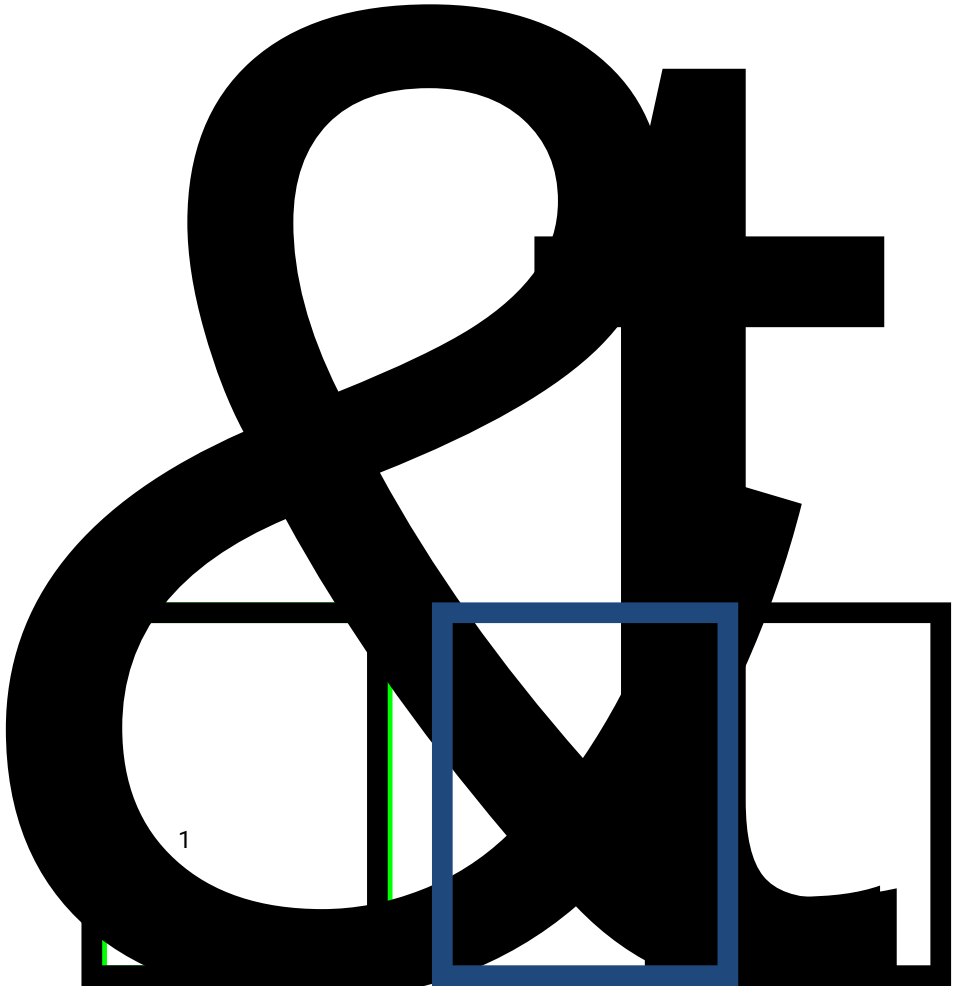
14>

! ! k

12 k

1 20 k

ARSA-xx/16.S **ARSA-xx/20.S**



Jd>

1

-
-
-
-
-
- **KNX**

21- 0
. /2 . / 0 1 20
/ /12
2 0 (0/ 0) 1 - /1 . 0 /0 /12 20 - /20. 0 /0 /12 0 /2
10
10
(0. ,)
0.2 .0 ^{2}
20 0 2
11 0
... + 2 ... + 2 ... + 0
%,

-0 /1 . -0 /20.	2 0
-0 /1 . -0 /20. -12/1 . -12/20.	1 0 21 0
-0 /1 . -0 /20.	0.
-0 /1 . -0 /20. -12/1 . -12/20.	0. 0 0.

- /1 . 0 /0 /12		000	0000
		000	000
	/	000	0000
		000	000
		2 00	000
		2200	0000
	0 /210	00	0000

- /20. 0 /0 /12		000	0000
		000	000
	/	000	000
		000	000
		2 00	000
		2200	0000
	0 /210	00	0000

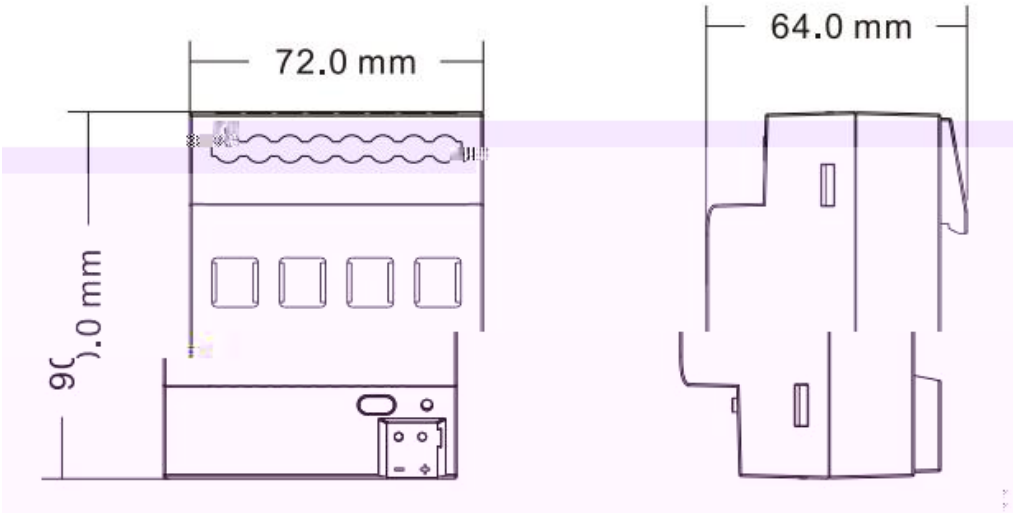
k **16A 20A**

k

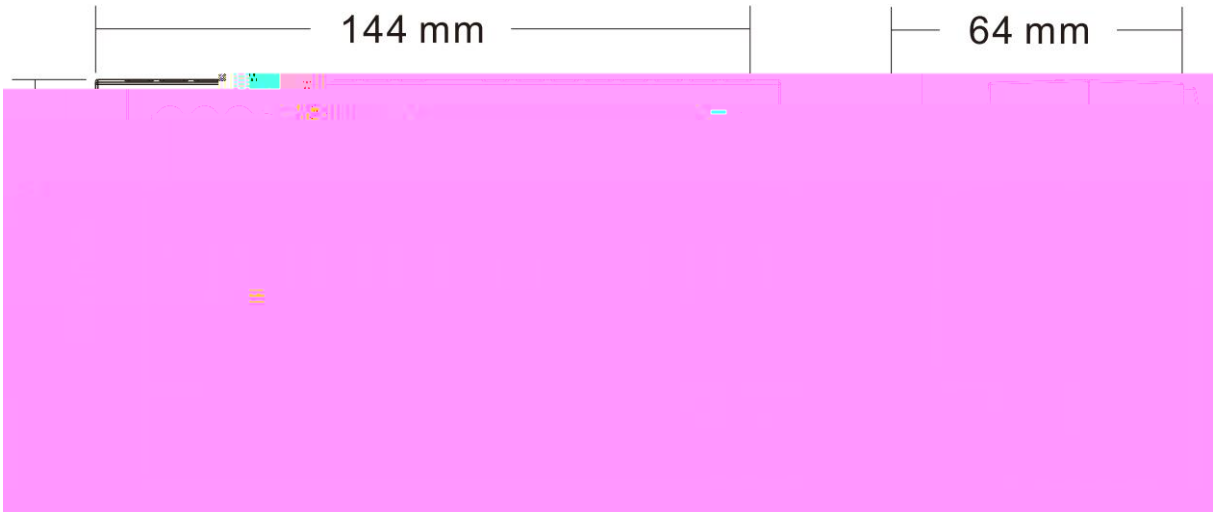
, - /.0		00	00	1.0
, - /.0	11	00	00	2 0
, 12- /.0	1 1	00	00	0

- /1 . ! - /20. k

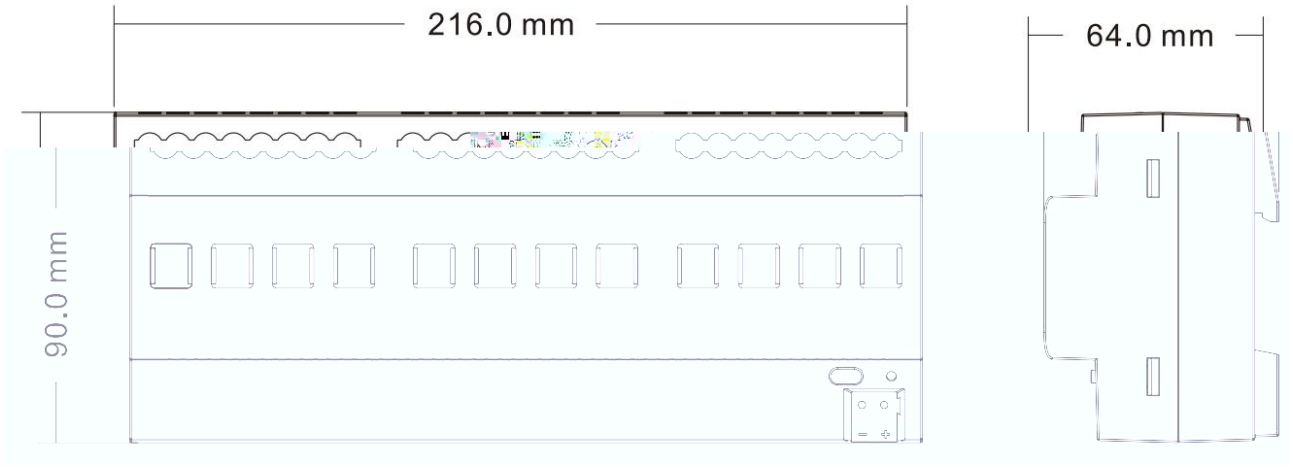
3.1.



-0 /1 . -0 /20.



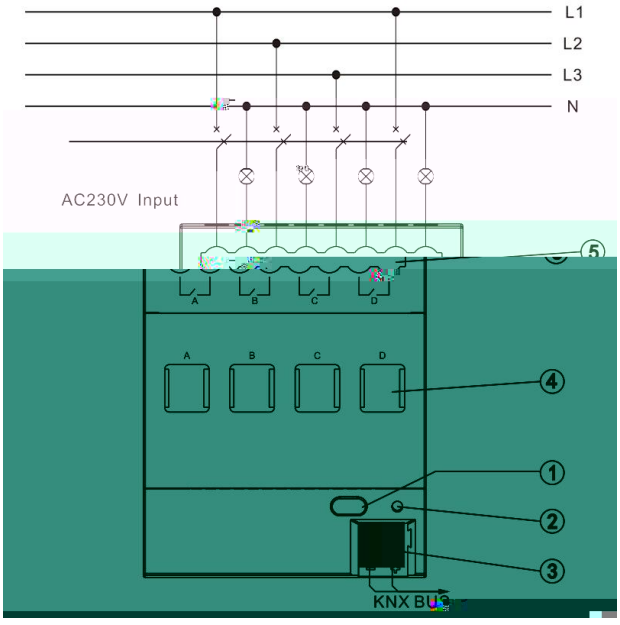
-0 /1 . -0 /20.



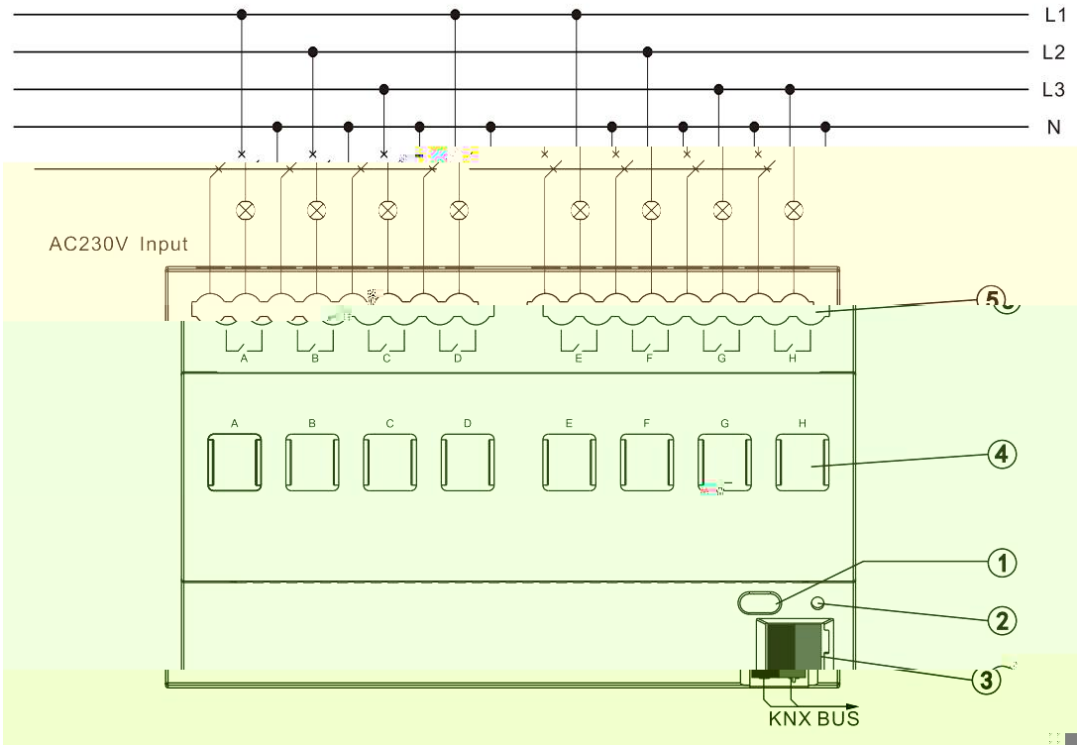
-12/1 . -12/20.

3.2.

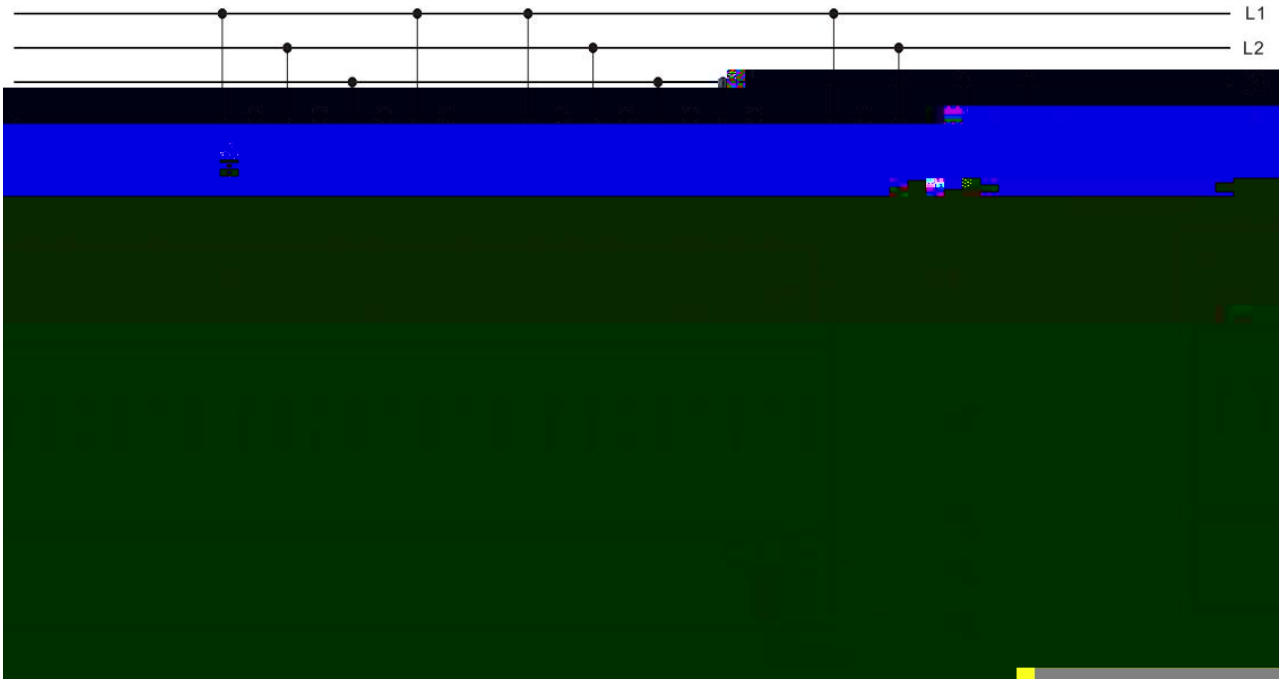
3.2.1. ARSA-04/16.S ARSA-04/20.S



3.2.2. ARSA-08/16.S ARSA-08/20.S



3.2.3. ARSA-12/16.S ARSA-12/20.S



F

F

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ㅋ /

4 4 3

ETS

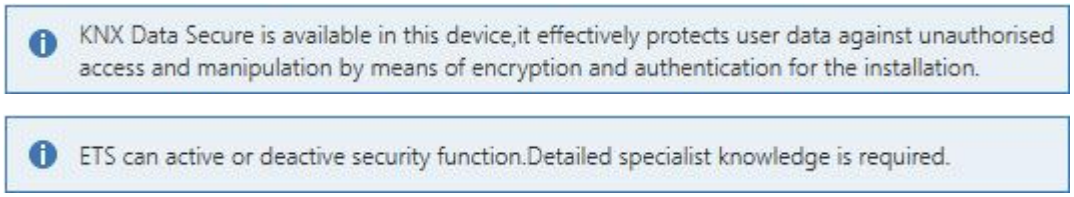
4.1. KNX

k

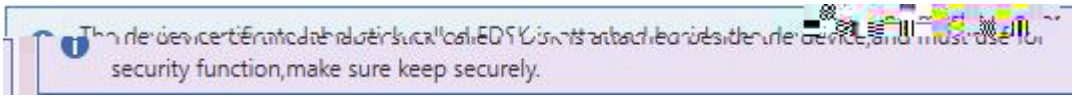
k

.1 (1)

.1(1)



k k k



k

❖ k

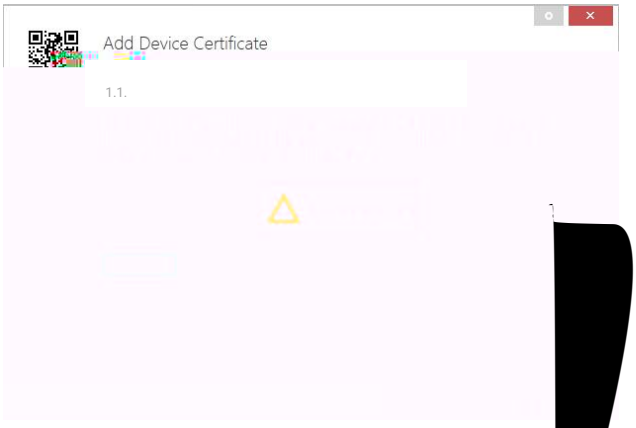
KNX

k

❖ k

✧ .1 (2) k

k

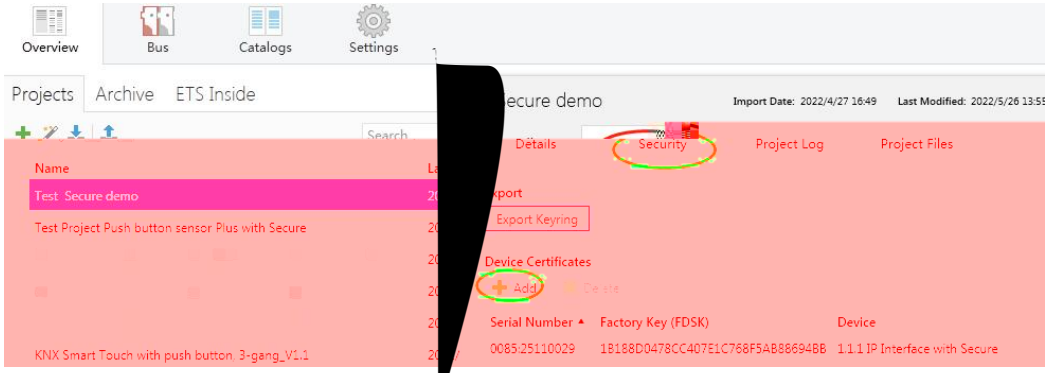


.1(2)

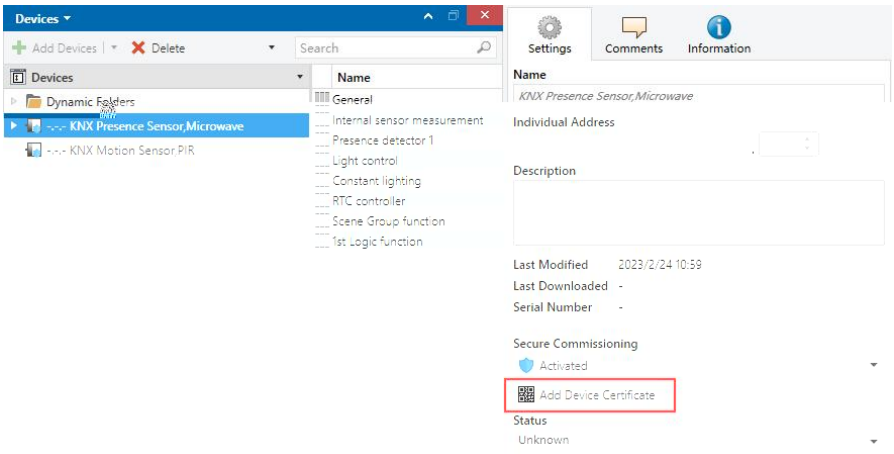
✧ k

.1( ) k

.1( ) k



.1( )



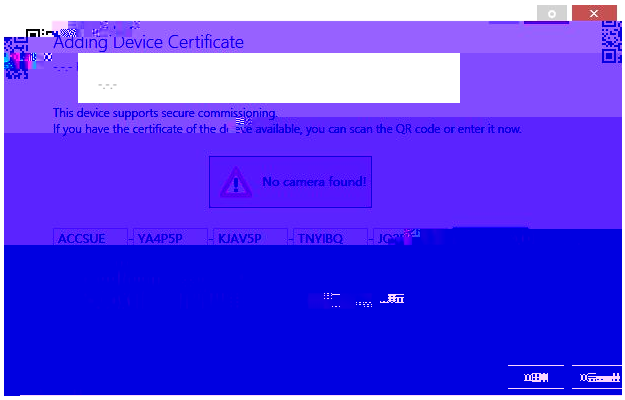
.1( )

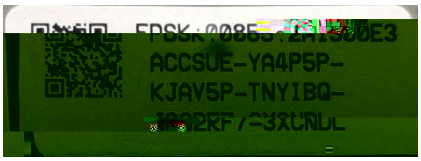
✧ k

FDSK **KNX** **k**

.1( ) k

k



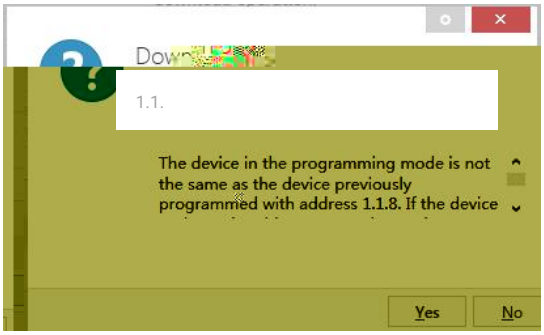


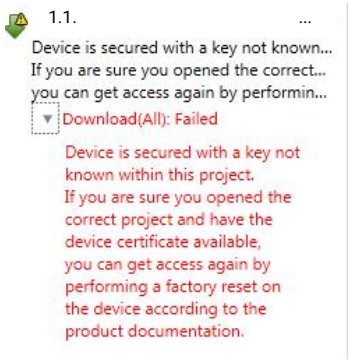
.1( )

k

.1( )

.1( ) k

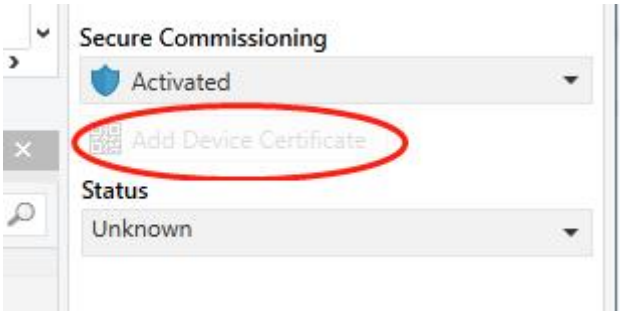




.1( )

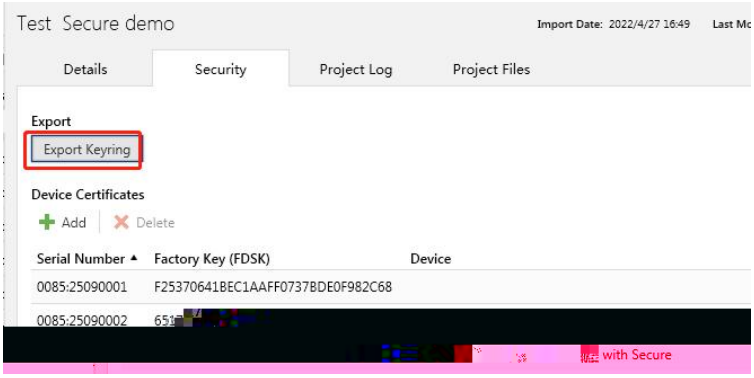
FDSK k

k



.1( )

.1( ) . k



.1( )

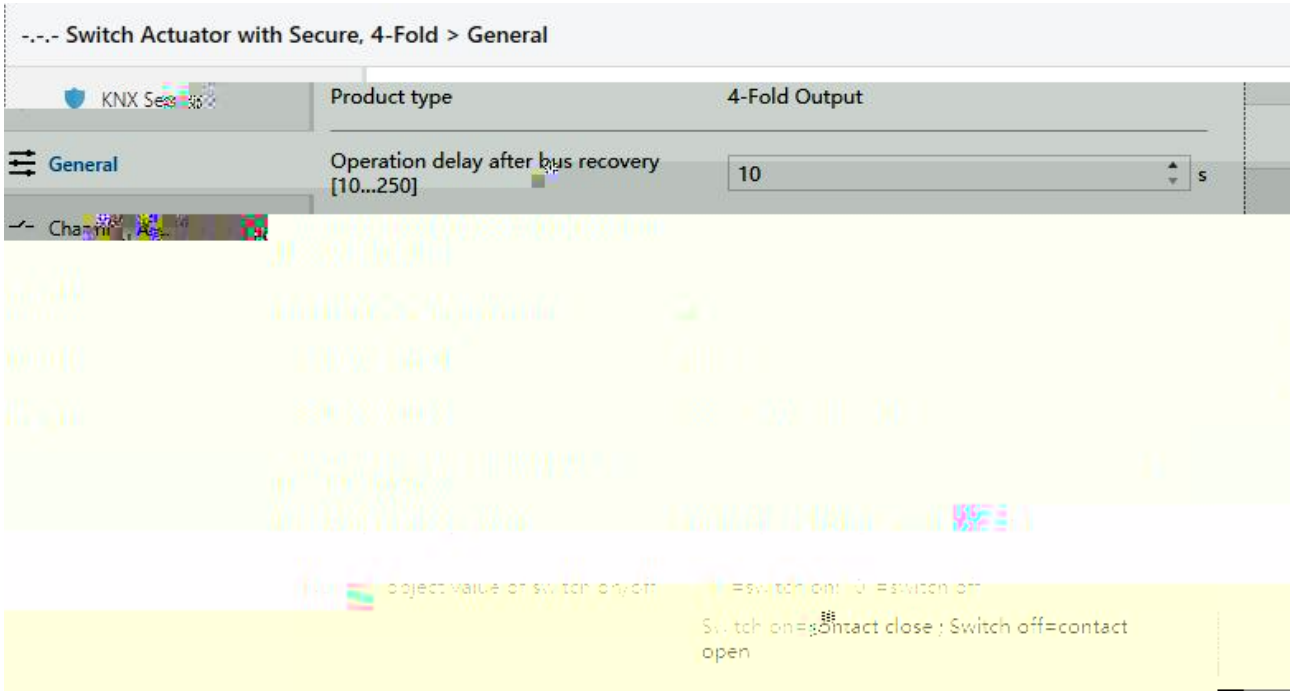
KNX USB , ETS

k

4.2. “General”

.2

k k



.2

Product type

4-Fold Output -0 /1 . ! -0 /20.

8-Fold Output -0 /1 . ! -0 /20.

12-Fold Output -12/1 . ! -12/20.

Operation delay after bus recovery [10..250]

,

220 k 2 k

10...250 s

k

k

k

Sending cycle of "In operation" telegram [1..240,0=inactive]

k 0

k 0

1 k

0...240 s 0= k

k

k

Enable Safety priority function

k

2

Safety priority x (x = 1, 2)

2 k

(1,2) k

k

k

Inactive

Reset safety by Object value "0"

Reset safety by Object value "1"

k

"0" 0

k

"1" 1

k

k k

Control period of safety priority x [1..240, 0 = inactive] (x = 1, 2)

(1, 2) k

(1, 2) k

(1, 2)

k **0...240 s**

0 k

k 0 k

2

k

Priority of safety operation

2 1 k

Normal, object value of switch on/off

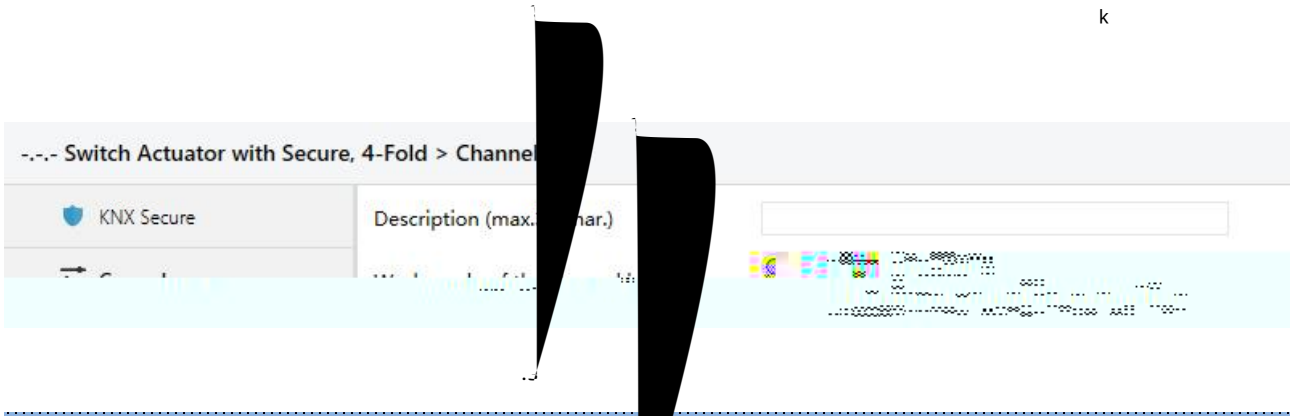
/

"1" "0"

Switch on **Switch off** k

4.3.

k



"Description (max. 30char.)"

0 k

"Work mode of the channel is"

k

Switch actuator

Heating actuator(without controller)

Switch actuator

k k

(! !) k . k

Heating actuator

k

k . k

k

k k

4.4. “Channel X”– Switch actuator

. (1) k

. (1) ¨

“If bus recovery,output status is”

k

Unchange

Contact open

Contact close

As before bus failure

k

k

"If bus failure,output status is"

k

Unchange

Contact open

Contact close

k

"Obj. value of "switch" after bus recovery"

0

0 1 k

To write with "0"

To write with "1"

0 k

"Set the reply mode of switch status"

k

No reply

Respond after read only

Transmit after change

k

0 1

k

"Object value of switch status"

k

0=contact close ; 1=contact open

0=contact open ; 1=contact close

0 1 0

1 0 1

k

"Output status for the telegram "1" (telegram "0" is opposite of selection) "

1 k

0 0

k

Contact open

Contact close

k

k

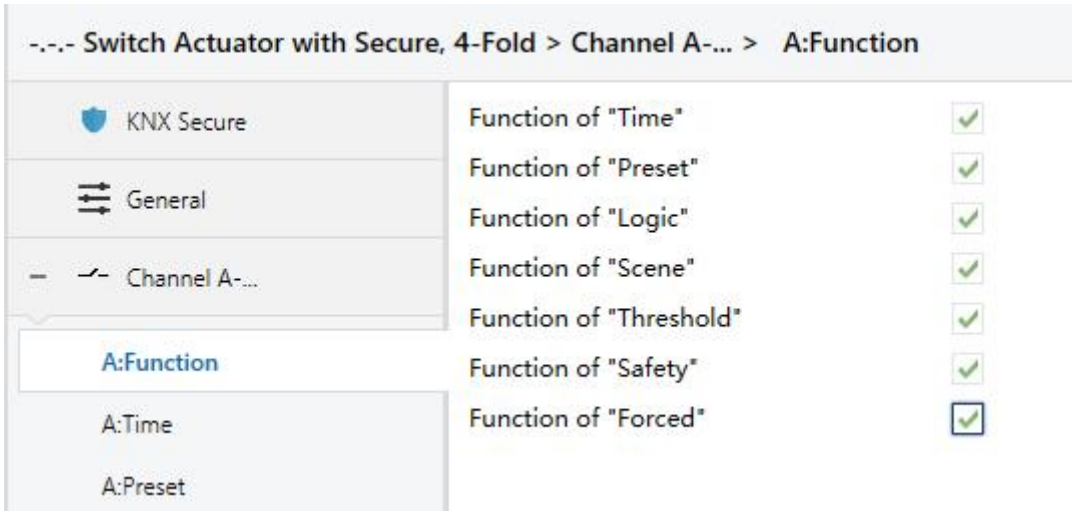
0 k

k

k

"Extension function"

k . (2) k



. (2)

4.4.1. "X: Time"

. .1

. (2) . .1

/ k

"The mode of time function"

k

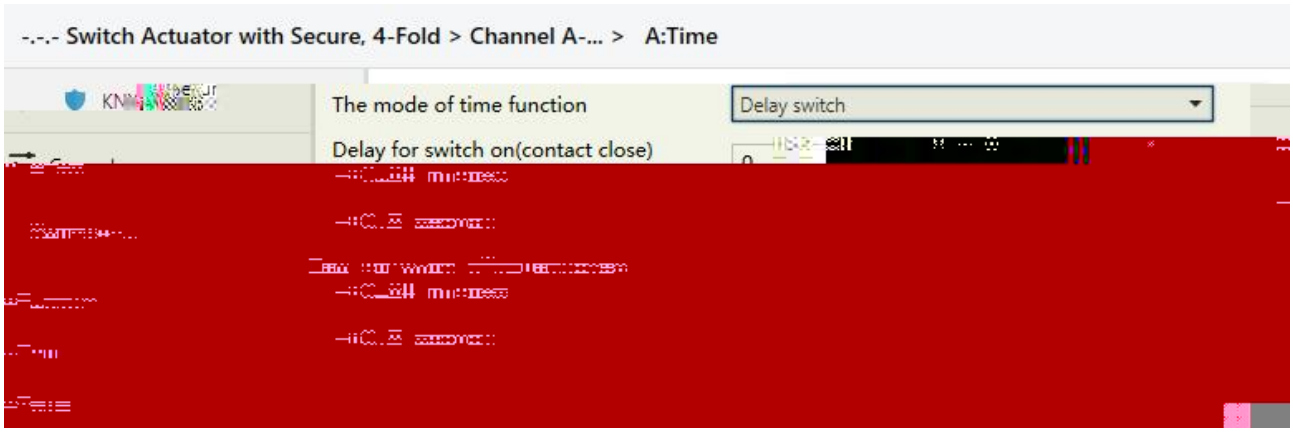
Delay switch

Flashing switch

Staircase lighting

4.4.1.1. “Delay switch”

. .1.1 k



. .1.1 -

k

”Delay for switching on(contact close) --(0...240 minutes) / -- (0...59 seconds)”

( ) k

0…240 min

0…59 s

k

”Delay for switch off(contact open): --(0...240 minutes) / -- (0...59 seconds)”

( ) k

0…240 min

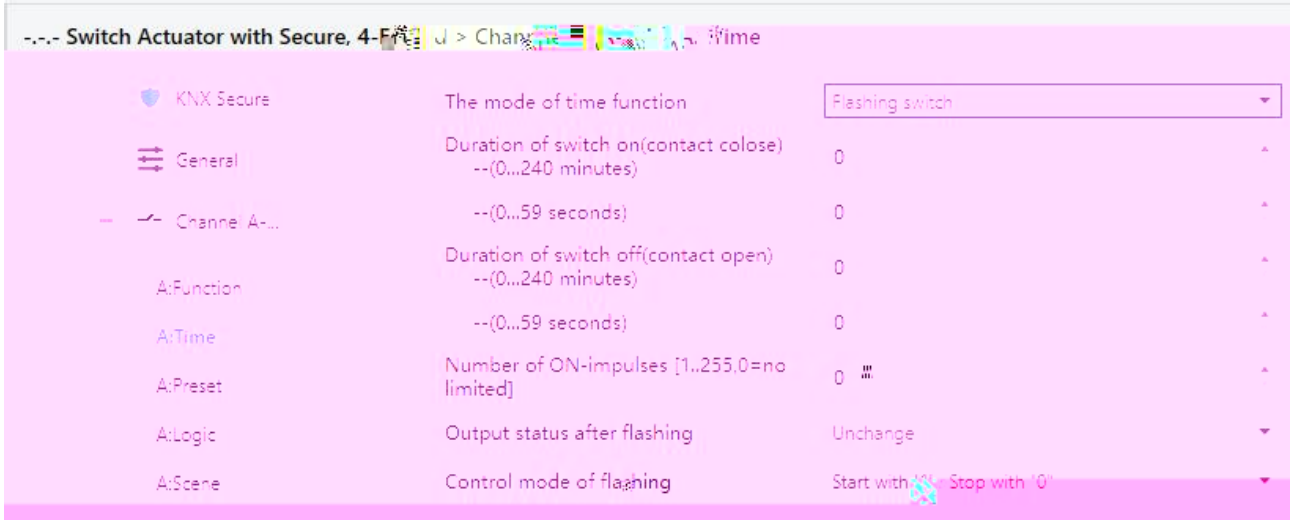
0…59 s

k

4.4.1.2. “Flashing switch”

. .1.2 k

k



. .1.2 -

k

( ) --(0...2 0)/--(0...)

( ) --(0...2 0)/--(0...) k

k

k

“Duration of switch on(contact colose): --(0...240 minutes) / -- (0...59 seconds)”

( ) k

0…240 min

0…59 s

“Duration of switch off(contact open): --(0...240 minutes) / -- (0...59 seconds))”

( ) k

0…240 min

0…59 s

k

k k

"Number of ON-impulses [1..255 0=no limited]"

1 2 0 k / k

0...255

Output status after flashing"

k

Unchange

Contact open

Contact close

"Control mode of flashing"

k

Start with "1", stop with "0"

Start with "0", stop with "1"

Start with "1/0", can not be stop

1, 0 1

0 k

0, 1 0

1 k

1/0,

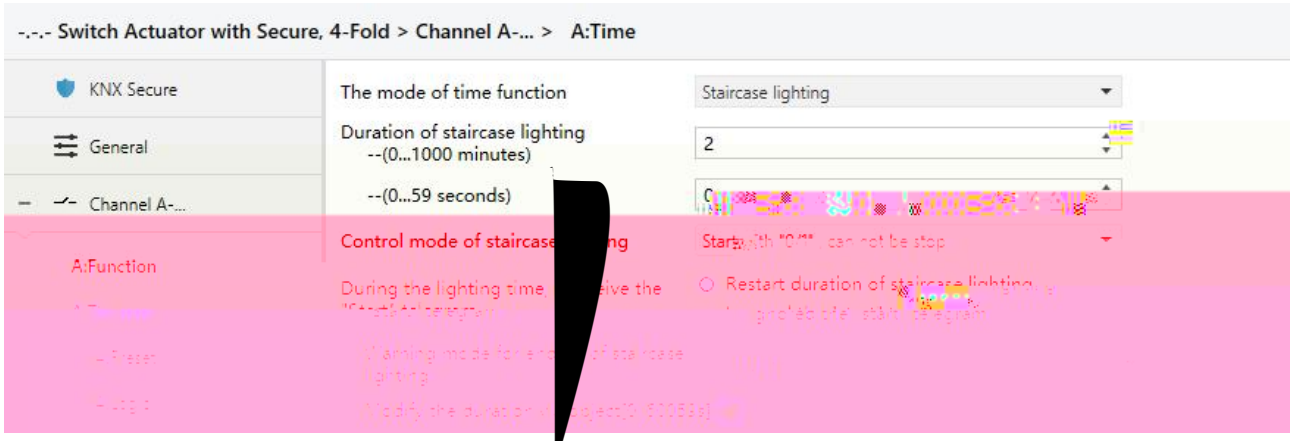
1 0 k

k

4.4.1.3. “Staircase lighting function”

. .1.

k



. .1. -

k

k k

k

“Duration of staircase lighting --(0...1000 minutes) / --(0...59 seconds)”

k

0…1000 min

0…59 s

“Control mode of staircase lighting”

k

Start with “1”, OFF with “0”

Start with “1”, no action with “0”

Start with “0/1”, can not be stop

1 , 0

1 0

1 , 0

1 0

0/1 ,

0 1 k

"During the lighting time, if receive the 'Start' telegram"

Restart duration of staircase lighting

Ignored the "start" telegram

k

,

k

"Warning mode for ending of staircase lighting"

k

k k k

k

Nothing

Via object

Flashing the channel output with on/off

Via object & flashing the channel output

1

k

1 □ □

"Modify the duration via object [0..60059s]"

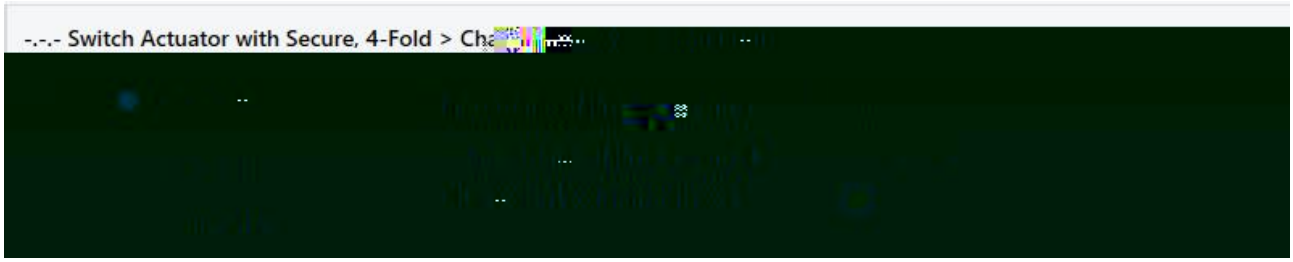
2

k k

4.4.2. “X: Preset”

. (2)

. .2 k



. .2

k

2 k 2 "0" "1"

0 "0" 1 "1" k

"Output status of the telegram "0""

0 0

k

None

Contact close

Contact open

"Output status of the telegram "1""

1 1

k

Contact open

Contact close

Last position of contact

Same as the telegram "0"

"1" 1

k

"1" "0"" 1

0 k

"Preset can be changed via bus"

k

k

k

0 0 1

1 k

"0" "1"

"0"

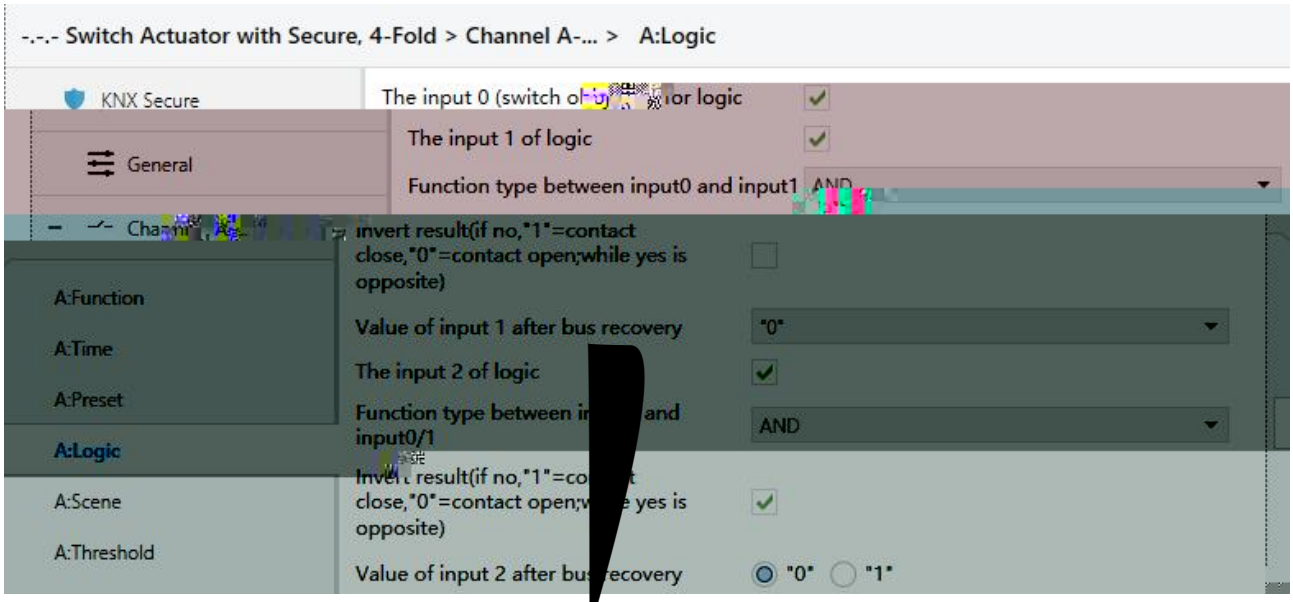
(/) k

k

4.4. “X: Logic”

. (2)

k



2

k

1 0 k

1 2

k

k

“The input 0 (switch object) for logic is”

0 k 0 k

“The input x of Logical” (x = 1, 2)”

1 2 k

"Function type between input0 and input1"

"Function type between input2 and input0/1"

k (, ,) k

k 2 1 0 1

2 0 k

AND

OR

XOR

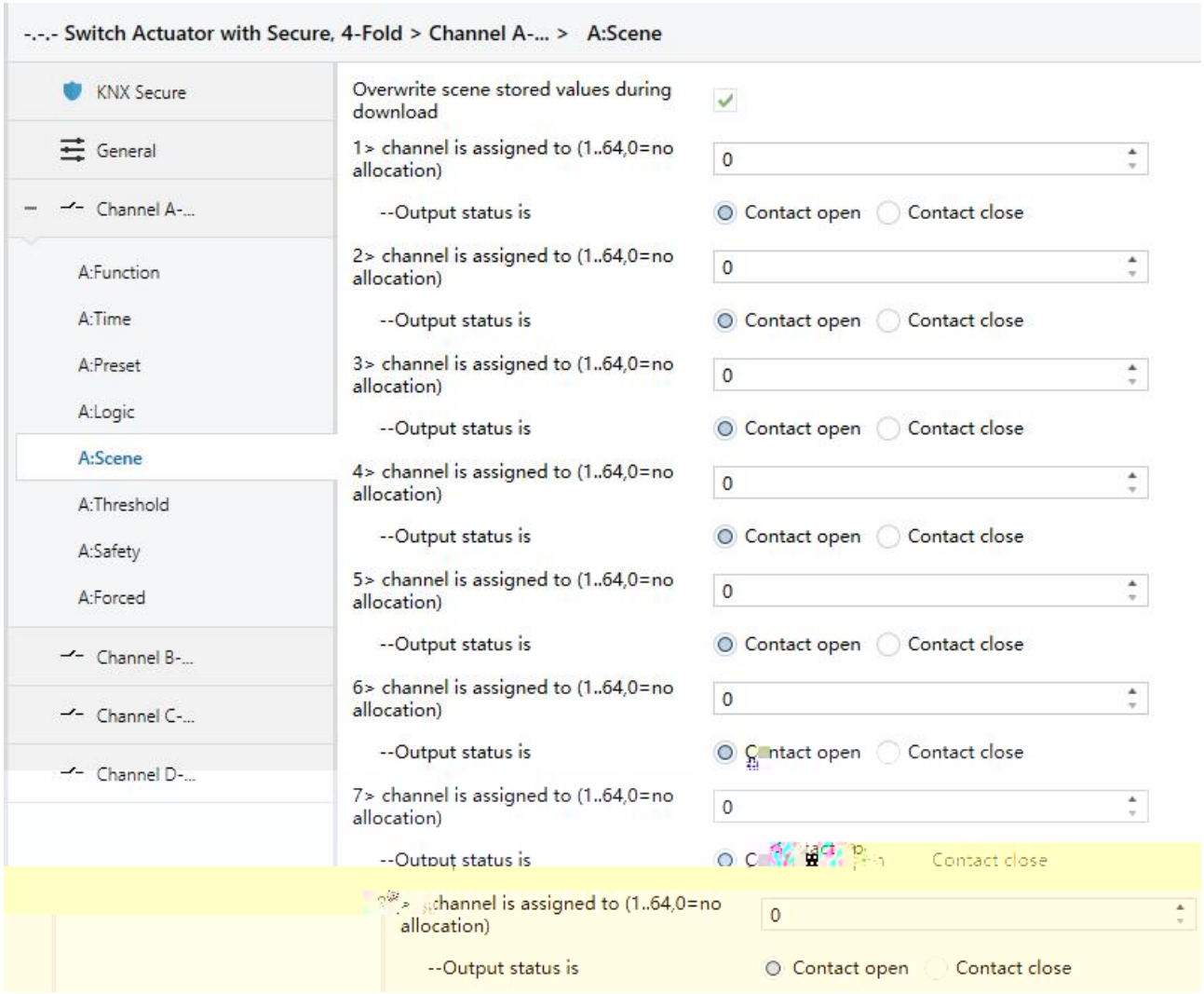
GATE

	0( )	1	0/1	2		
	0 0 1 1	0 1 0 1	0 0 0 1	0 1 0 1	0 0 0 1	1 1 k
	0 0 1 1	0 1 0 1	0 1 1 1	0 1 0 1	0 1 1 1	1 1 k
	0 0 1 1	0 1 0 1	0 1 1 0	0 1 0 1	0 0 1 1	1.
	0 0 1 1		0 1		0 1	1 k
1 1 2 k 2 ! k ! k ! ( ) k 1 0 2 k						

4.4.4. “X: Scene”

. .(2)

. . k



. .

Overwrite scene stored values during download

k

k

k

"x> channel is assigned to (1...64 scene NO.,0= no allocation)"(x=1~8)

k k

1... 64 0=no allocation

1~64 k 0..63 k

k

"--Output status is:"

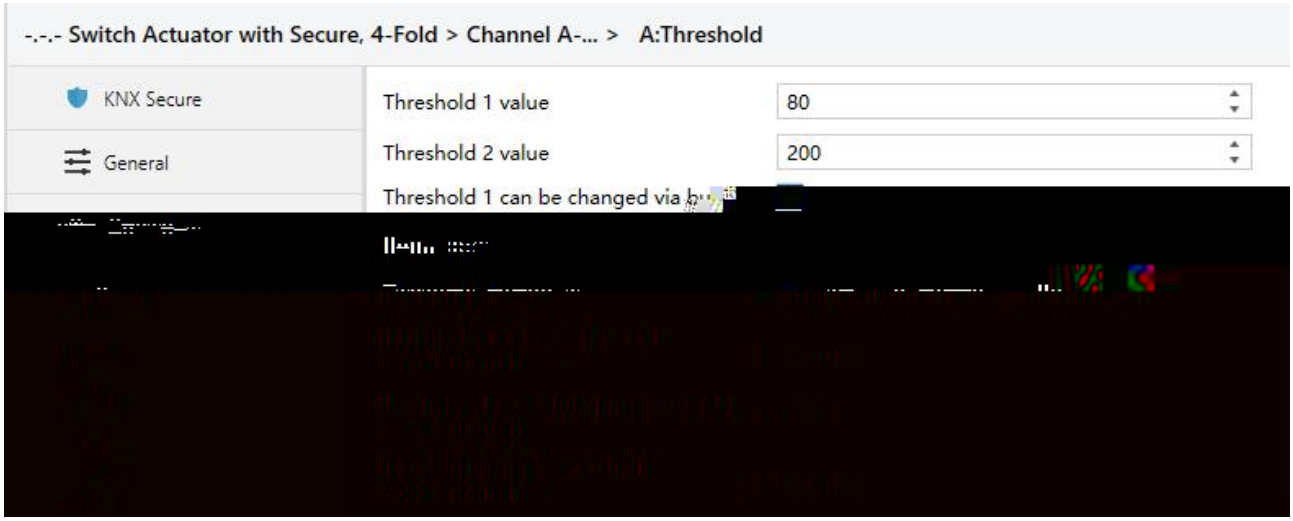
k

Contact open
Contact close

4.4.5. "X: Threshold"

. (2)

. . k



. .

1 k

k

k 1 1 k

/

k 0...255

1< 2 ETS

□

1 1 k

1 1 1

J

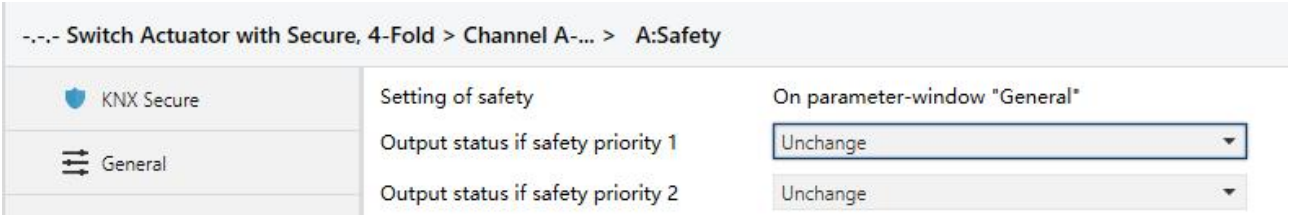
pn

k

4.4.6. “X: Safety”

. (2)

. . k



. .

(1, 2) k

(1, 2) k

k

2 (1, 2) 2 1

2 1

2 k

“Output status if safety priority x” (x=1,2)

(1, 2) k

Unchange

Contact open

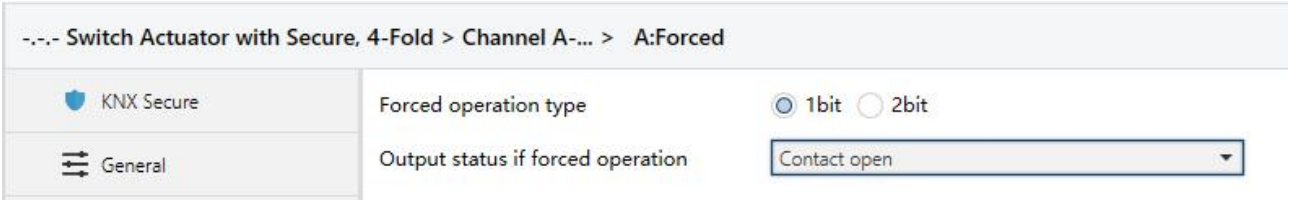
Contact close

k

4.4.7. “X: Forced

. (2)

. . k



. .

k

k

k

“Forced operation type”

k

1bit

2bit

1 , 1 0 k

2 ,

“Forced output X”	
00 0 01 1	
10 2	
11	

k

/ /

k

!

output status if forced operation"

1 k

Unchange

Contact open

Contact close

k

k ,

k

4.5. “Channel X”– Heating actuator

( ) . (1)

- k

k

k

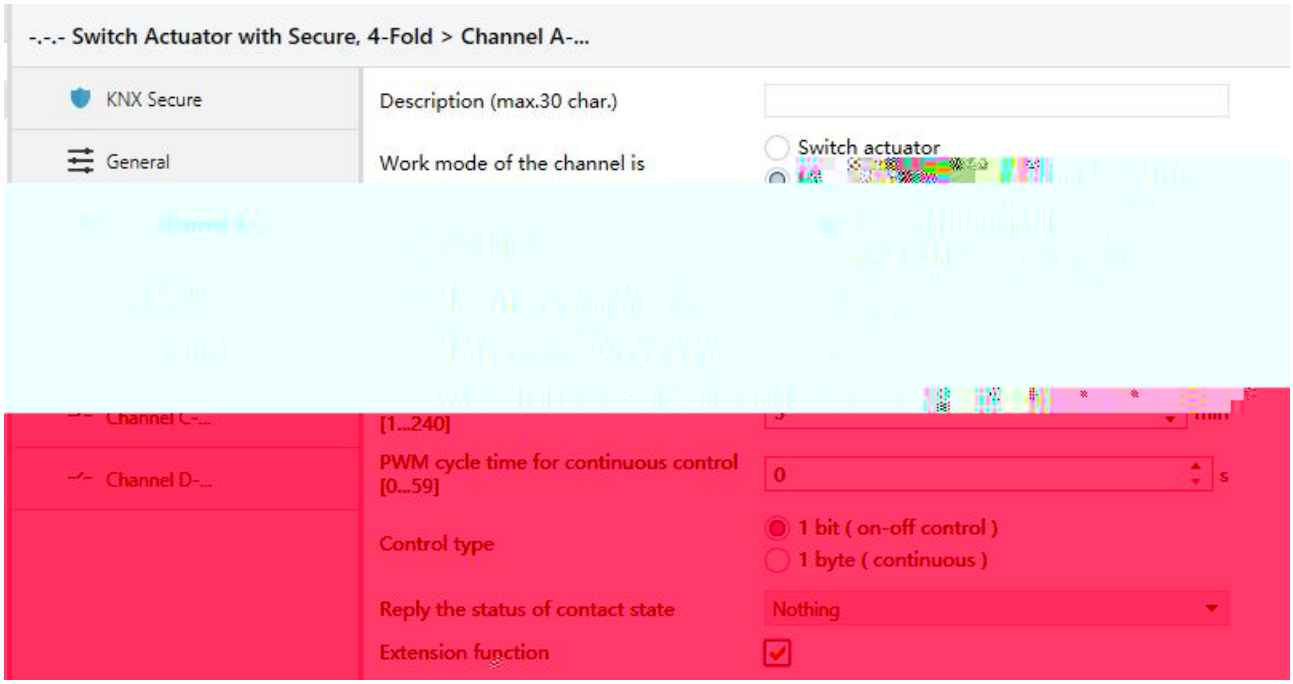
1 1 k 1

- 1 1

1 k

0% 100% k 0 100% %

k


-.-.- Switch Actuator with Secure, 4-Fold > Channel A-...
KNX Secure
General
Channel C-...
Channel D-...
Description (max.30 char.)
Work mode of the channel is
Switch actuator
[1...240]
PWM cycle time for continuous control [0...59]
0
s
Control type
1 bit (on-off control)
1 byte (continuous)
Reply the status of contact state
Nothing
Extension function

. (1) -

"If bus recovery, valve position is"

k

0 %(OFF)

10 %(26)

...

100 %(ON)

20% 100 1 0 20 0 k

"PWM cycle time for continuous control [1...240]"

"PWM cycle time for continuous control [0...59]"

( ) k k

1...240 min

0...59 s

k

1bit (PWM) ! !

k

"Control type"

k

1 bit (on-off control)

1 byte (continuous)

1

k k

k

1 0 2 0% .. 100% k

- k 0 100% 0%...100%

k

k

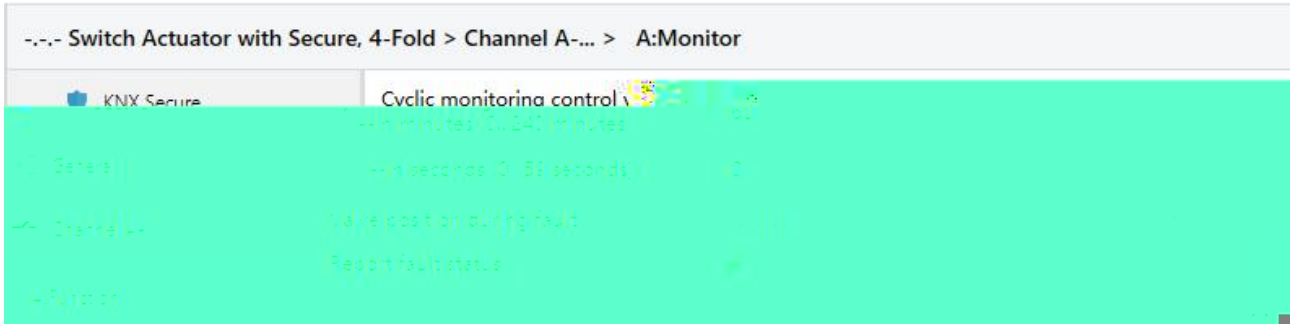
0

"Reply the status t t

4.5.1. “X: Monitoring”

. (2) . .1

k



. .1

“Cyclic monitoring control value --in minutes (0...240 minutes) / --in seconds (0...59 seconds)”

k

k

k

k k k

0...240 minutes

0...59 seconds

k

k

“Valve position during fault”

k 20% 100 1

0 20 0 k

0 % (OFF)

10 % (26)

...

100 % (ON)

Unchange

k

"Report fault status"

k

k k

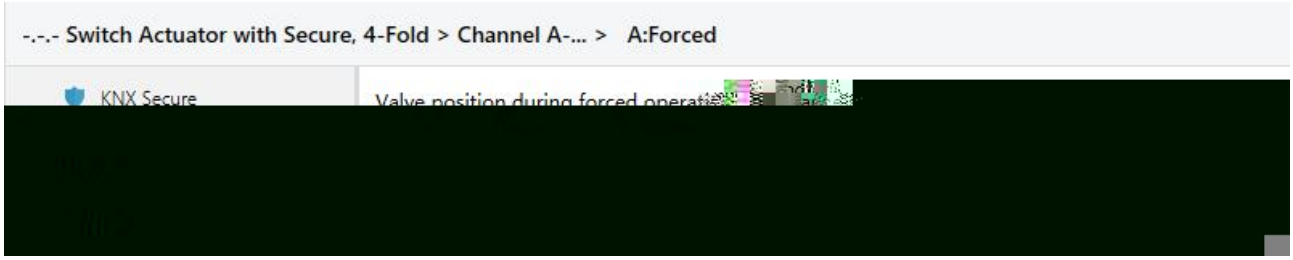
1

0 k

4.5.2. "X: Forced"

. (2) . .2

k



. .2

k

k

1 0 k

"Valve position during forced operation"

k 20%

100 1 0 20 0 k

0 % (OFF)

10 %(26)

...

90 %(230)

100 % (ON)

Unchange

k

k

0%

0%

k

0%

monitor

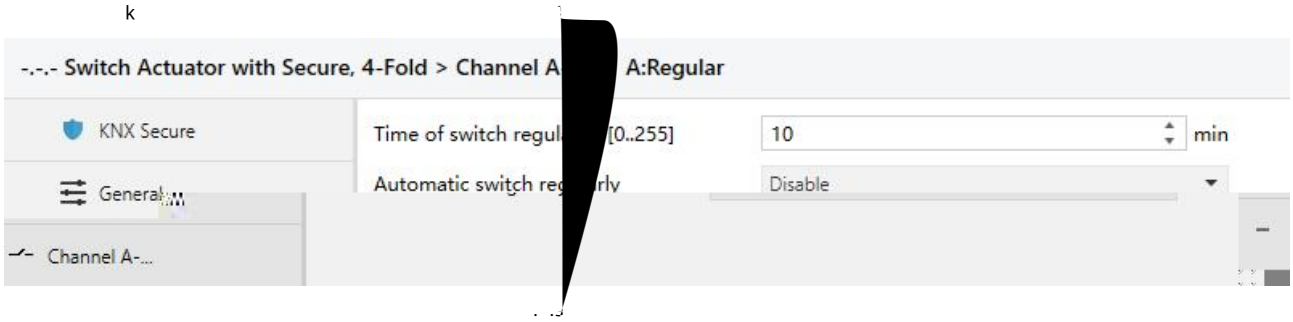
k

k

4.5.3. “X: Regular”

. (2)

k



k

k

“Time of switch regular in [0...255]”

k **0...255 min**

“Automatic switch regularly”

k

Disable

One time per day

One time per week

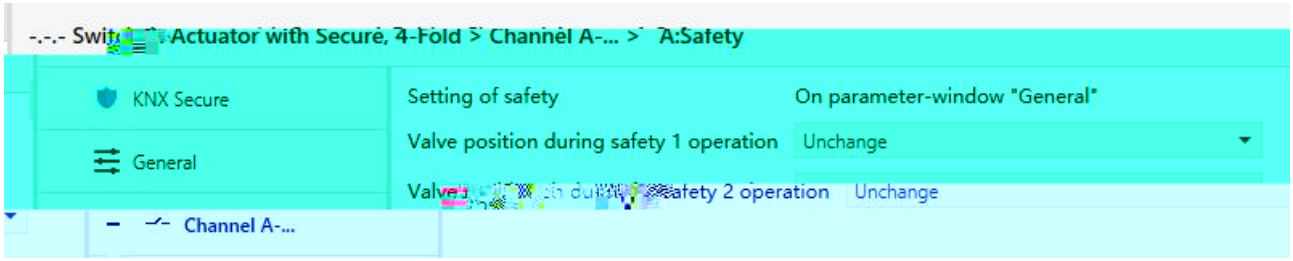
One time per month

k

4.5.4. “X: Safety”

. (2) . .

k



. .

2 (1, 2) k

(1, 2) k

k

2 (1, 2) 2 1

2 1

2 k

k

“Valve position during safety x operation” (x=1,2)

k 20%

100 1 0 20 0 k

0 % (OFF)

10 %(26)

...

90 %(230)

100 % (ON)

Unchange

k

k 0%

0% 0% k

k

k

C

W R

T U k

5.1. “General”

k

.1 .1 k

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
1	General	In operation			1 bit	C	R	-	T	-	switch	Low
2	General	Safety priority 1			1 bit	C	-	W	-	U	enable	Low
3	General	Safety priority 2			1 bit	C	-	W	-	U	enable	Low

.1

1	**In operation**	**General**	**1bit**	**C,R,T**	**1.001 switch**
1 k					
2	**Safety Priority 1**	**General**	**1bit**	**C,W,U**	**1.003 enable**
! 1 k 1 k 1 2 k					
3	**Safety Priority 2**	**General**	**1bit**	**C,W,U**	**1.003 enable**
1 k					

.1

5.2. “Switch actuator”

5.2.1. “Switch actuator”

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

.2.1

4	**Switch status**	**Output A-{{...}}**	**1bit**	**C,R,T**	**1.001 switch**
k k (.0 .)				/ -... k k	
5	**Switch**	**Output A-{{...}}**	**1bit**	**C,W**	**1.001 switch**
0		1		0 0	k k

.2.1

5.2.3. “Switch actuator”

.2..

10	**Recall preset**	**Output A-{{...}}**	**1bit**	**C,W**	**1.022 scene**
			0 1		1 k
11	**Store preset**	**Output A-{{...}}**	**1bit**	**C,W**	**1.022 scene**
1		1 k	0		0

.2..

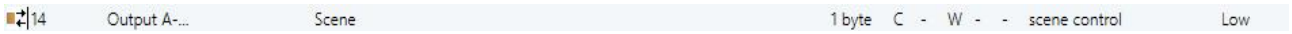
5.2.4. “Switch actuator”

.2.

12	**Input 1 of logic**	**Output A-{{...}}**	**1bit**	**C,W**	**1.002 boolean**
		1	k		
13	**Input 2 of logic**	**Output A-{{...}}**	**1bit**	**C,W**	**1.002 boolean**
		2	k		

.2.

5.2.5. “Switch actuator”

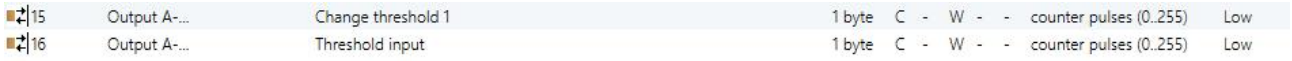


.2.

14	**Scene**	**Output A-{{...}}**	**1Byte**	**C,W**	**18.001 scene control**
k ( ) 0 1 0 0 k 1 0 k 1 k 0 k					

.2.

5.2.6. “Switch actuator”



.2.

15	**Change threshold 1**	**Output A-{{...}}**	**1Byte**	**C,W**	**5.010 counter pulses**
1 k					
16	**Threshold input**	**Output A-{{...}}**	**1Byte**	**C,W**	**5.010 counter pulses**
k					

.2.

5.2.7. “Switch actuator”

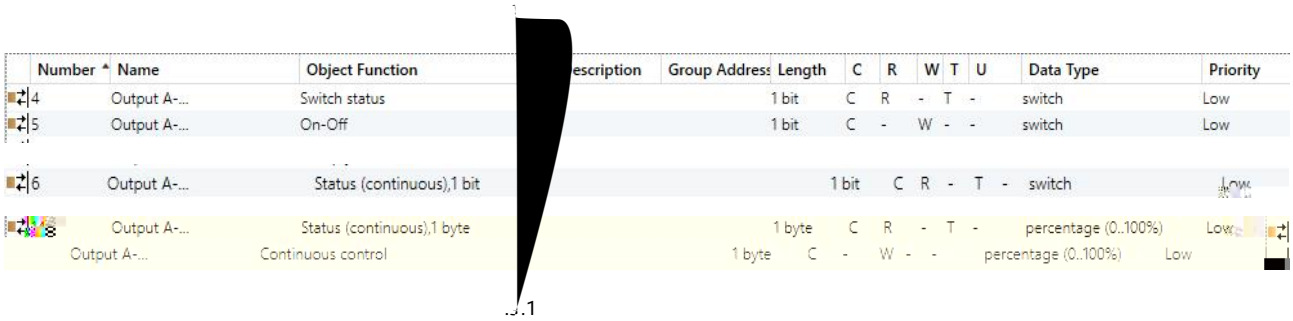
.2.

17	**Forced operation**	**Output A-{{...}}**	**1bit**	**C,W**	**1.003 enable**
		1	k	1	
		0	k		
17	**Forced operation**	**Output A-{{...}}**	**2bit**	**C,W**	**2.001 switch control**
		2	k		2
				0 1	k

.2.

5.3. “Heating actuator”

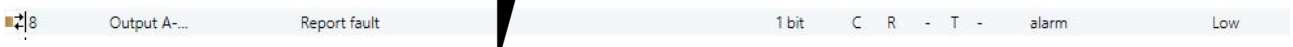
5.3.1. “Heating actuator”



Number	Name	Object Function	escription	Group Address	Length	C	R	W	T	U	Data Type	Priority
4	Output A-...	Switch status			1 bit	C	R	-	T	-	switch	Low
5	Output A-...	On-Off			1 bit	C	-	W	-	-	switch	Low
6	Output A-...	Status (continuous),1 bit			1 bit	C	R	-	T	-	switch	Low
	Output A-...	Status (continuous),1 byte			1 byte	C	R	-	T	-	percentage (0..100%)	Low
	Output A-...	Continuous control			1 byte	C	-	W	-	-	percentage (0..100%)	Low

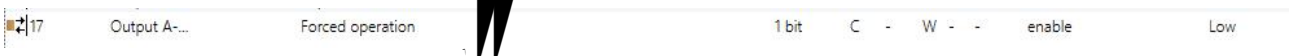
15	**Continuous control**	**Output A-{{...}}**	**1Byte**	**C,W**	**5.001 percentage**
			1		
1 k 0 100% 0% 100% k					
5	**On-Off**	**Output A-{{...}}**	**1bit**	**C,W**	**1.001 switch**
			1 -		1
k 0 1 k					
14	**Status (continuous),1 byte**	**Output A-{{...}}**	**1Byte**	**C,R,T**	**5.001 percentage**
					1
k ( ) k					
6	**Status (continuous),1 bit**	**Output A-{{...}}**	**1bit**	**C,R,T**	**1.001 switch**
, 0% 0 , 1 (1) , 0% 1 , 0 (1) k k , 0% 0 , 1 (1) 0 1 , 0% 1 , 0 (1) 1 0 k					
4	**Switch status**	**Out A-{{...}}**	**1bit**	**C,R,T**	**1.001 switch**
			1 0 ,0		
1 k k					

5.3.2. “Heating actuator”



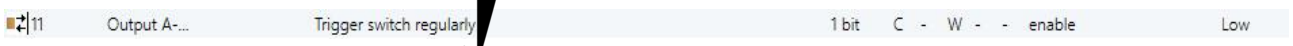
8	**Report fault**	**C ut A-{{...}}**	**1bit**	**C,R,T**	**1.005 alarm**
1		k		k	

5.3.3. “Heating actuator”



17	**Forced operation**	**ut A-{{...}}**	**1bit**	**C,W**	**1.003 enable**
0		k k	1		

5.3.4. “Heating actuator”



11	**Trigger switch regularly**	**ut A-{{...}}**	**1bit**	**C,W**	**1.001 switch**
0		k		k 1	k

- 2- 1-

- 2- 1- - /

k

2 2

1 1

/ / / /

2 2

1 1

/ / ! ! -

k

Flash/Staircase/Delay

k k

monitor

k

/

k