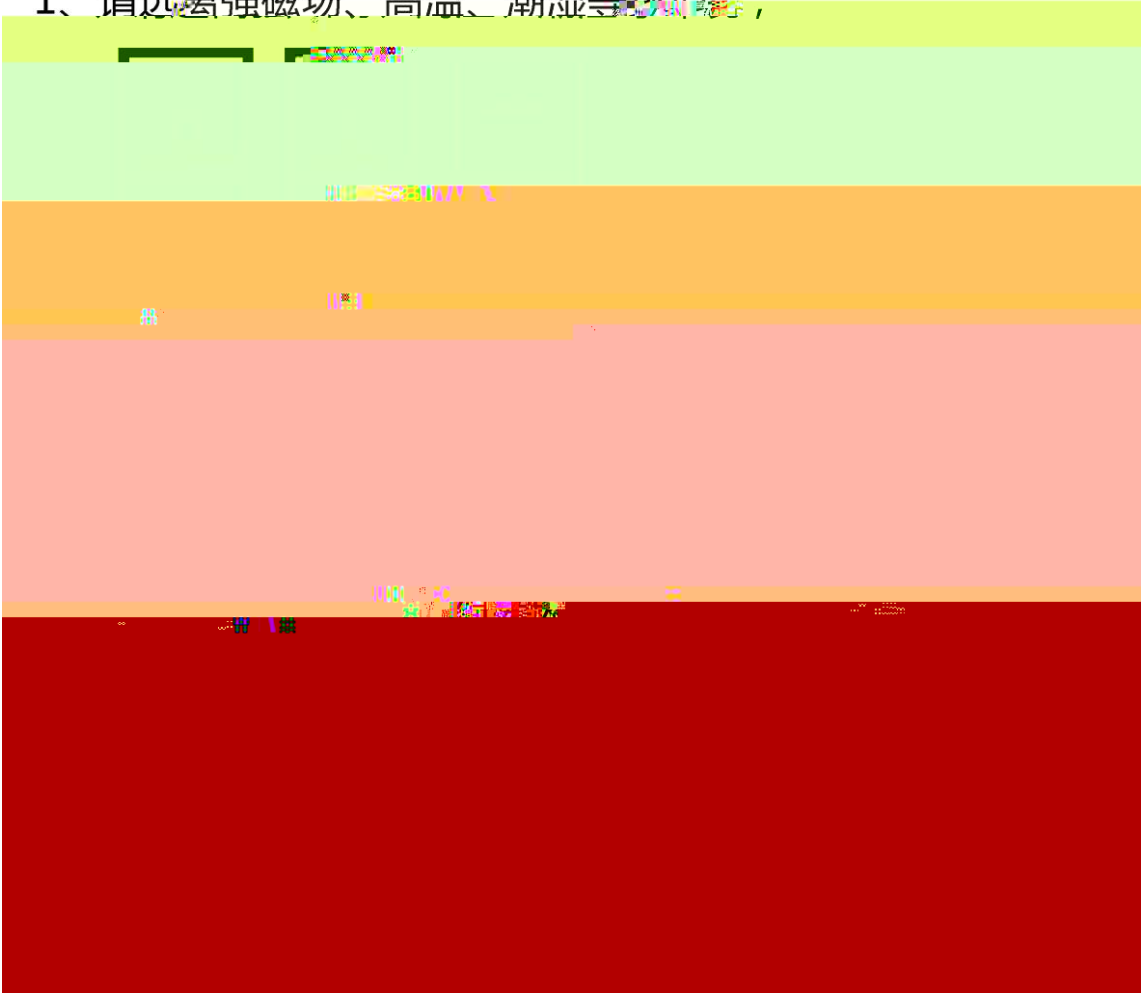


K-BUS

注意事项

1、请远离强磁场、高温、潮湿等环境；



1.
2.

.....1
.....
.....
.....
.....
.....

..... .

[illegible]

3

AC

LED

k

k

KNX

k

k

--

k

3

/

1

! ! !

1 /2

--

!

!

!

!

1

k

k AC

/

/

0、100%

0、100%

1

--

1

3

k

1 2

/

---	1	2	4	2	3point,
open and close	! PWM	continuous, PWM	2	2 state-ON/OFF	k 4
		PWM	continuous, PWM	2	2
state-ON/OFF	k				
		k			
PWM				1byte	PWM
				k	
2	PWM				
1bit					k

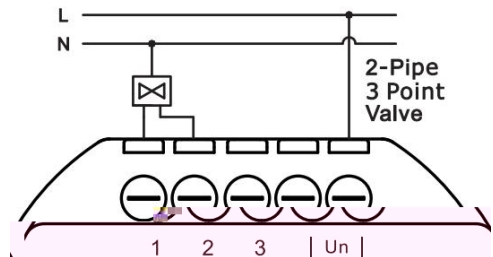
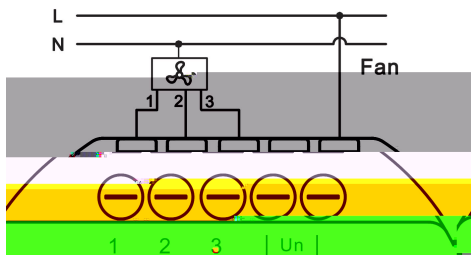
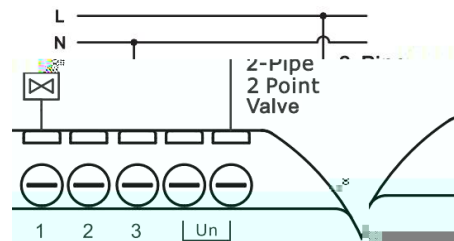
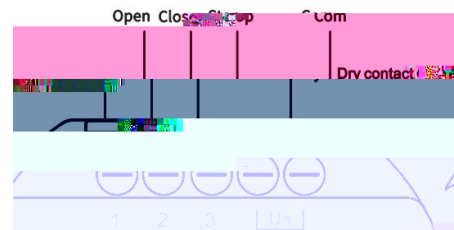
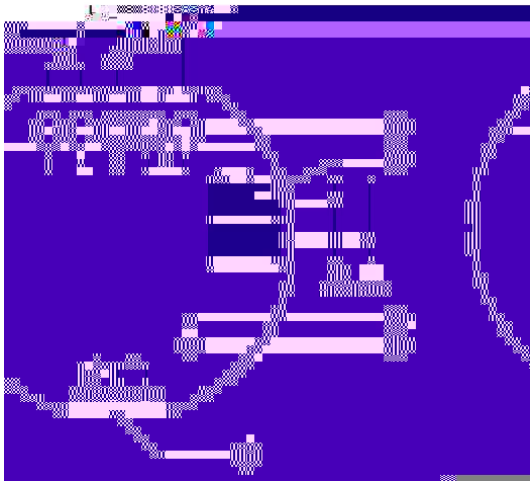
21-30V DC,		
<18.1mA/24V,<14.7mA/30V <441.0mW <24mA		
U _n	230V AC 50/60Hz	
I _n	6A	12A
16A/277V AC		
>10⁶ >5x10⁴ (16A 277VAC,)		
5V	12V	4mA
KNX	(0.8mm)	
		0.2-1.5mm ²
		0.2-2.5mm ²
		0.4N-m
/LED	≤5M	
LED		
-5 °C ... + 45 °C -25 °C ... + 55 °C - 25 °C ... + 70 °C		
<93%,		
80mm		86mm

k

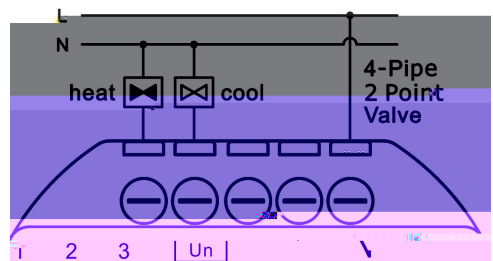
k

Multifunctional Actuator with Secure,3-Fold,Flush Mounted/1.0	104	250	250	250

.2.



输入	1...8 — / — G	1...4 — / — G
LED	NG	5...8 — / — V
共阳极		



F F LED

4 KNX

4

3 /LED ,

G: GND

V: VCC

1...8: 1~8

Common Anode:

.1.

ETS

k

KNX

3

KNX

KNX

k

k



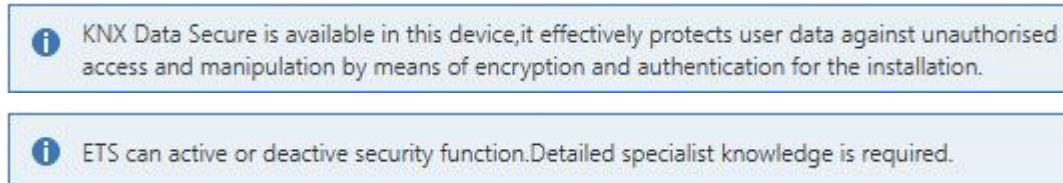
4.1 (1) “KNX Secure”

KNX

KNX

ETS

4.1(1)



KNX

k ETS

k

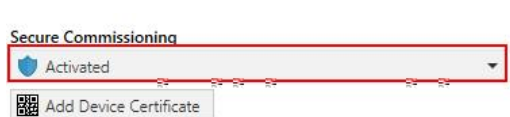
k



FDSK

k

ETS



KNX

k

» »

k

KNX

k

FDSK =

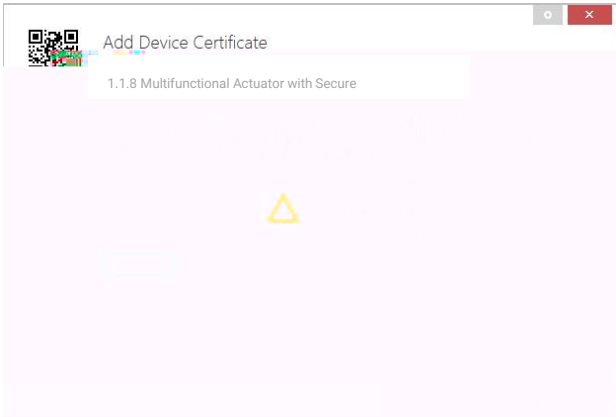
ETS

ETS

4.1 (2) k

QR

k



4.1(2) Add Device Certificate

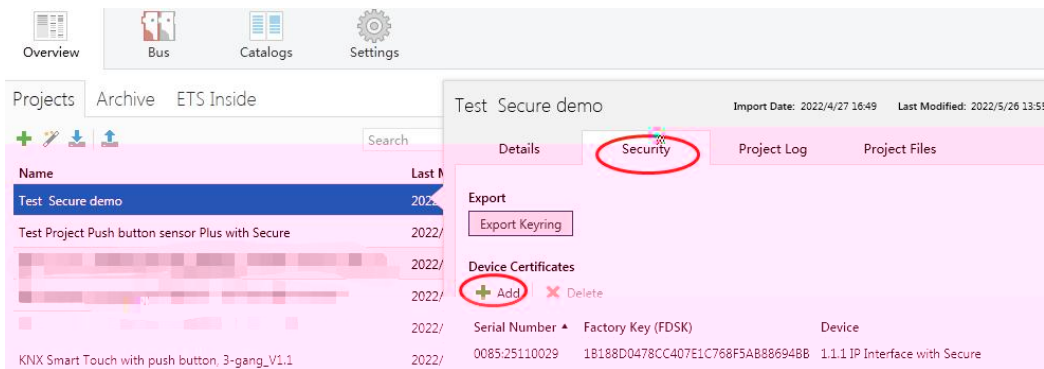
ETS k

“Security”

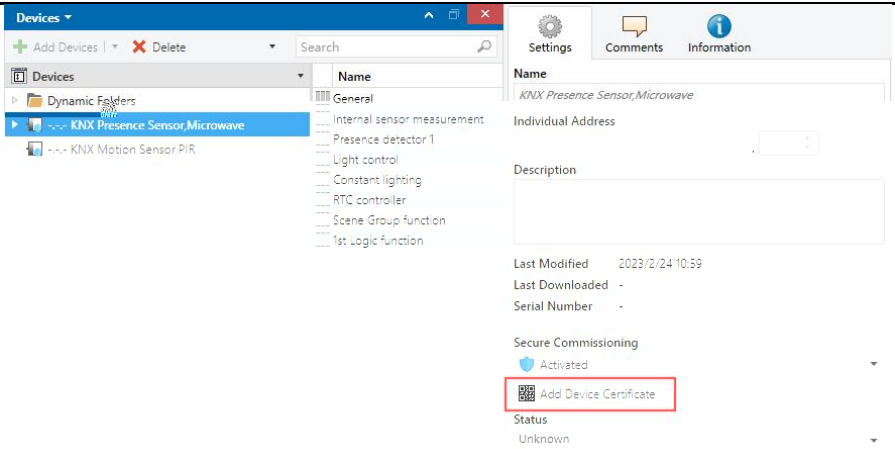
4.1(3) k

“Add Device Certificate”

4.1(4) k



4.1(3) Add Device Certificate



4.1(4) Add Device Certificate

FDSK k

k

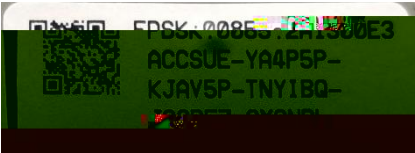
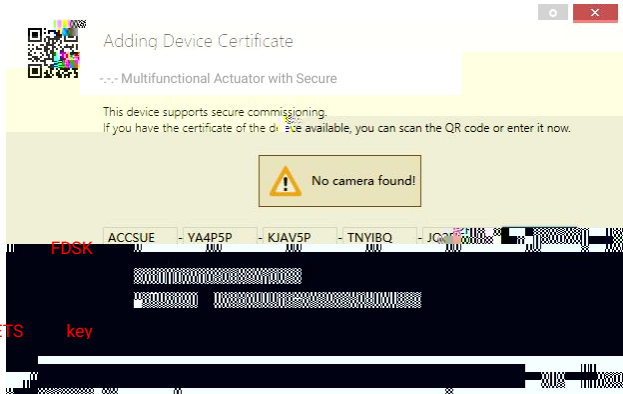
FDSK

FDSK ETS

4.1(5) k

ETS

FDSK k



4.1(5)

k

4.1(6)

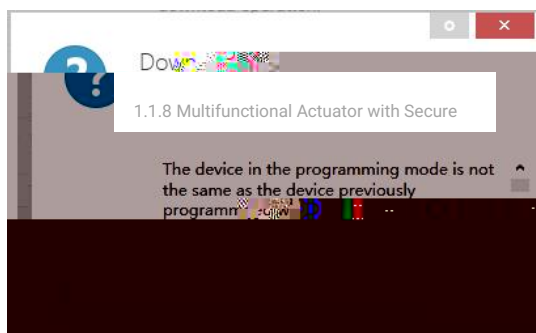
“Yes”

“Add Device Certificate”

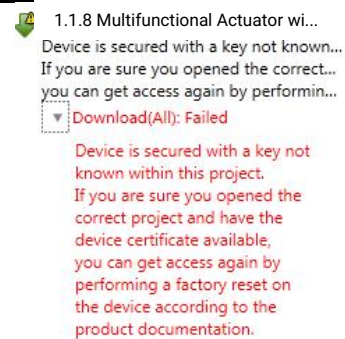
FDSK

4.1(6)

k



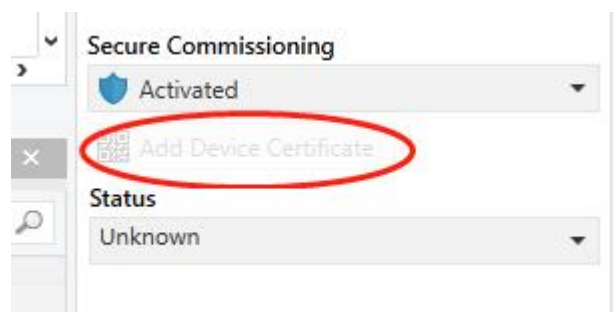
4.1(6)



k

"Add Device Certificate"

k

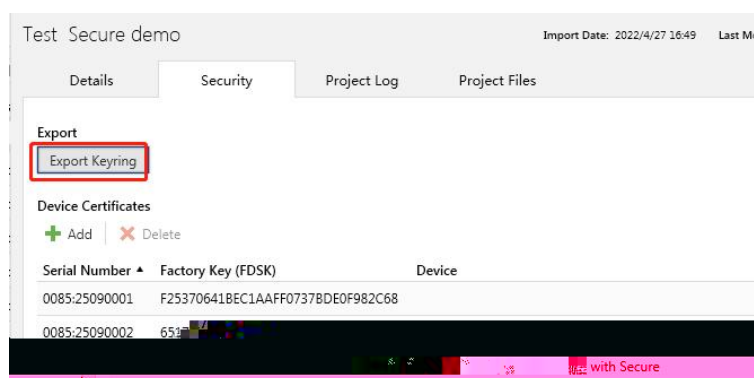


4.1(7)

ETS

4.1(8)

.knxkeys k



4.1(8)

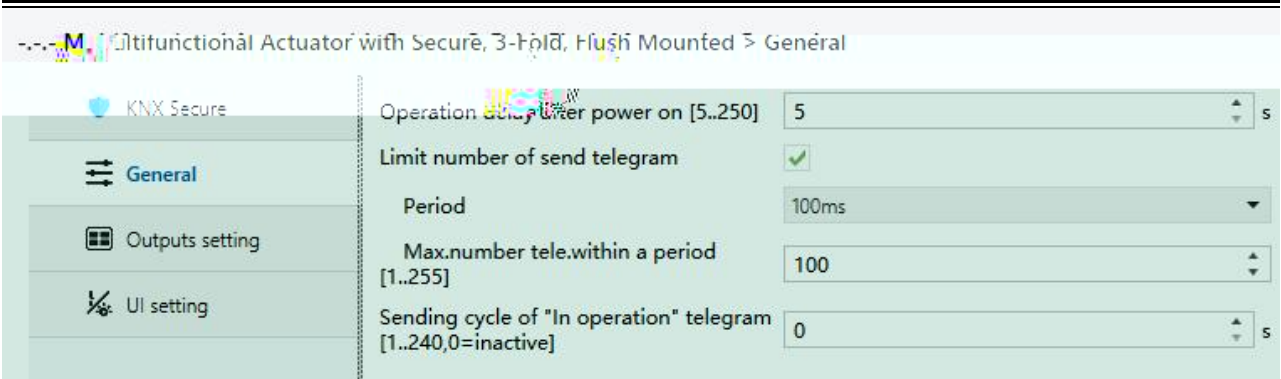
k

.2

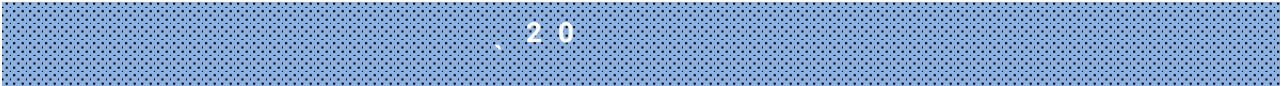
"General"

4.2

k



4.2 “General”



k

k

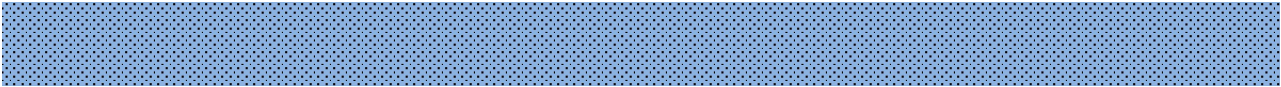
k

k

3s k

k

k



k

“Period” “Max. Number of tele. within a period [1...255]”

• •

k

100
00

• •

10

k

k

40

k

1..2

k

1 2

k

1..2 0,0

k

"0"

"In

operation"

k

"0"

"In operation"

"1"

k

0 2 0 0

k

k

k

k

Channel configuration

k



11

12-1121

1-111

11

			/ /2-	-	
1	1		/		1
2	2		1&2. , 2		2
			2- /)		

HVAC

! 2

4k

“ 1 & 2



Output 1 Output 2 1 2 1

2k



“ 1 / , 2



3point, open and close

Output 1

Output 2 k

' ' 'Æt S8%È-` (ÿ S dy... 18%È* @
' '

. --

3

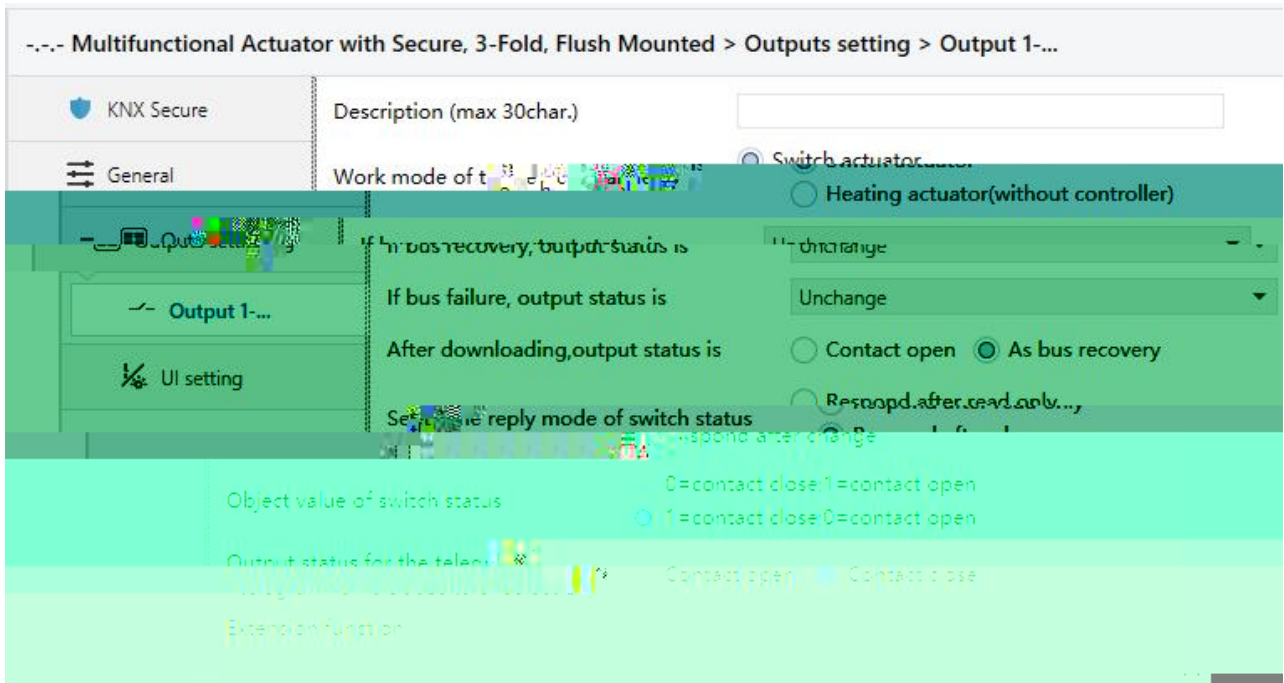
k

. .1

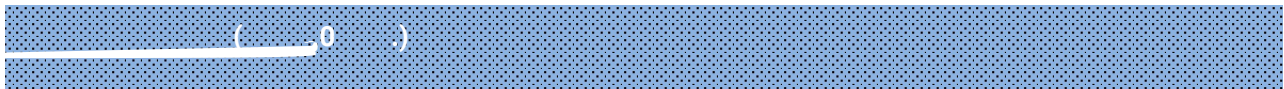
Output X Switch”

4.4.1 1 k

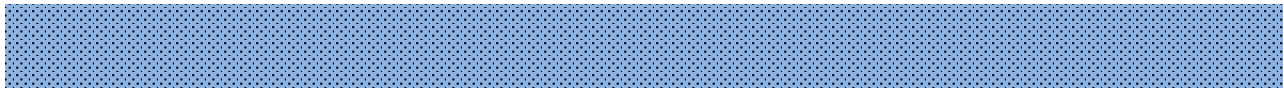
k



4.4.1(1) Output X Switch



30 k



k

()

Switch Actuator

k

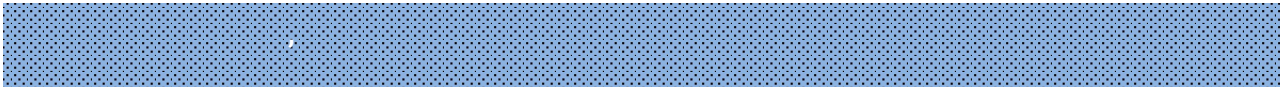
“Switch actuator”

k

Heating actuator without controller

4.4

k



k

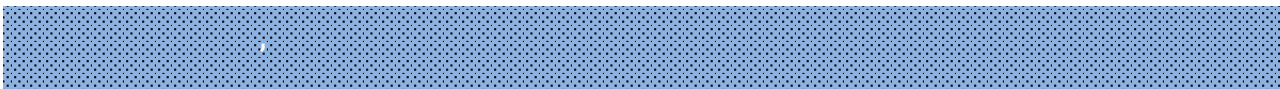
“Unchange”

“Contact open”

“Contact close”

“As before as bus fail”

k



k

“Unchange”

“Contact open”

“Contact close”

k



k

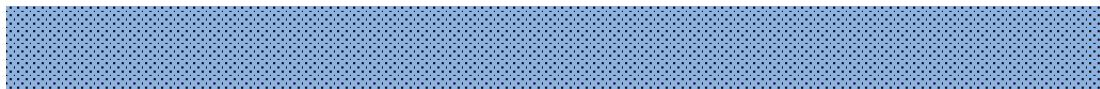
“Contact open”

k

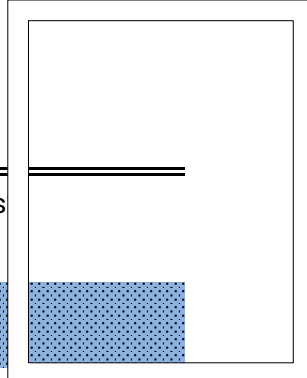
"As bus recovery"

"If bus recovery, contact is

k



k



"Respond after read only"

"Switch status" ☐

"Contact open"

1

0

"Contact close"

1

0

k

0

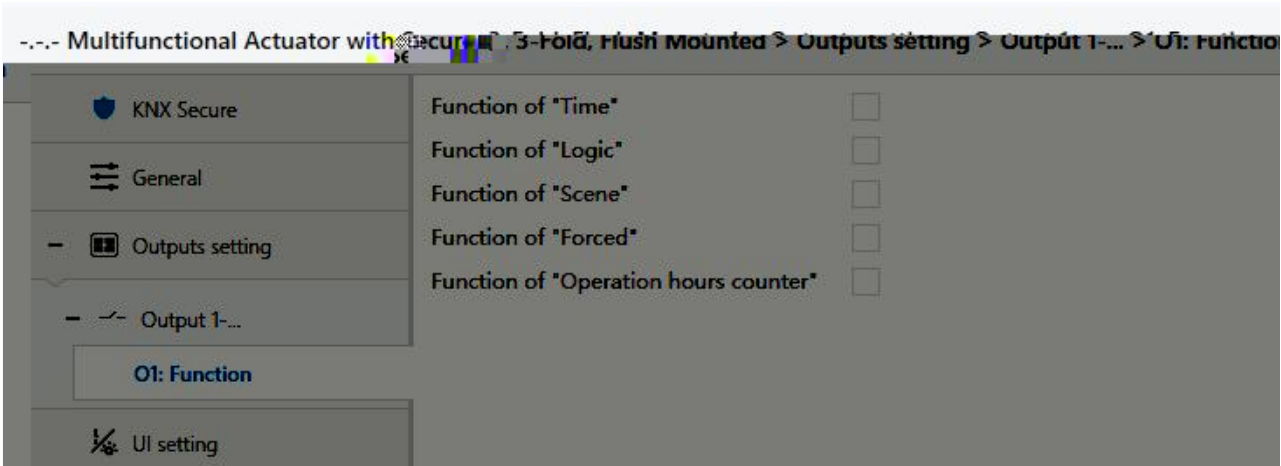
0

k



"Output X: Function"

, 4.4.1(2) k



4.4 .1(2)

Output X: Function

k

Output X: Time - Delay

k

. .2.1

“ ”

4.4.2

k

“Delay function”

k

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

k

0, 2 0

0,

k

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

k

0, 2 0

0,

k

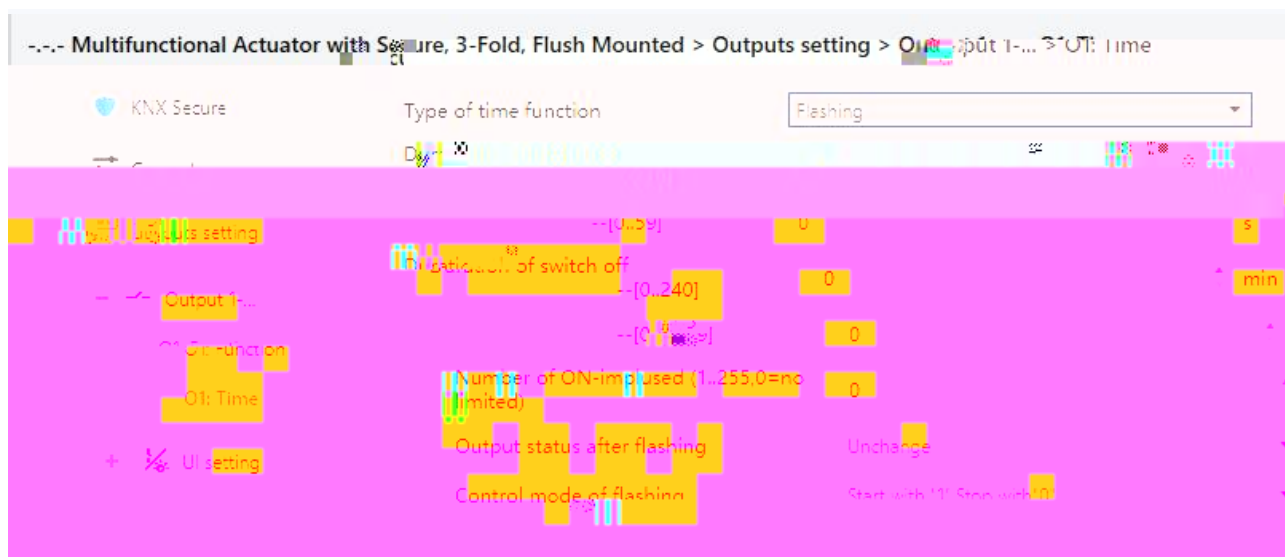
k

. .2.2

“Type of time function” “Flashing” 4.4.2.2

k

k

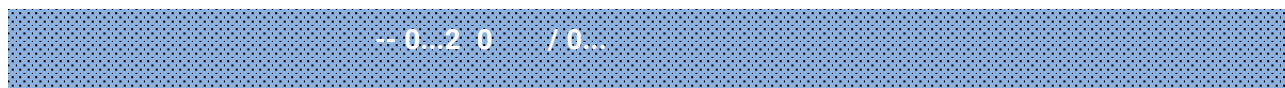


4.4.2.2 Output X: Time - Flashing

Flashing “Flashing function” “Duration

of switch on” “Duration of switch off” k

k



k

0...2 0

0...

k

k

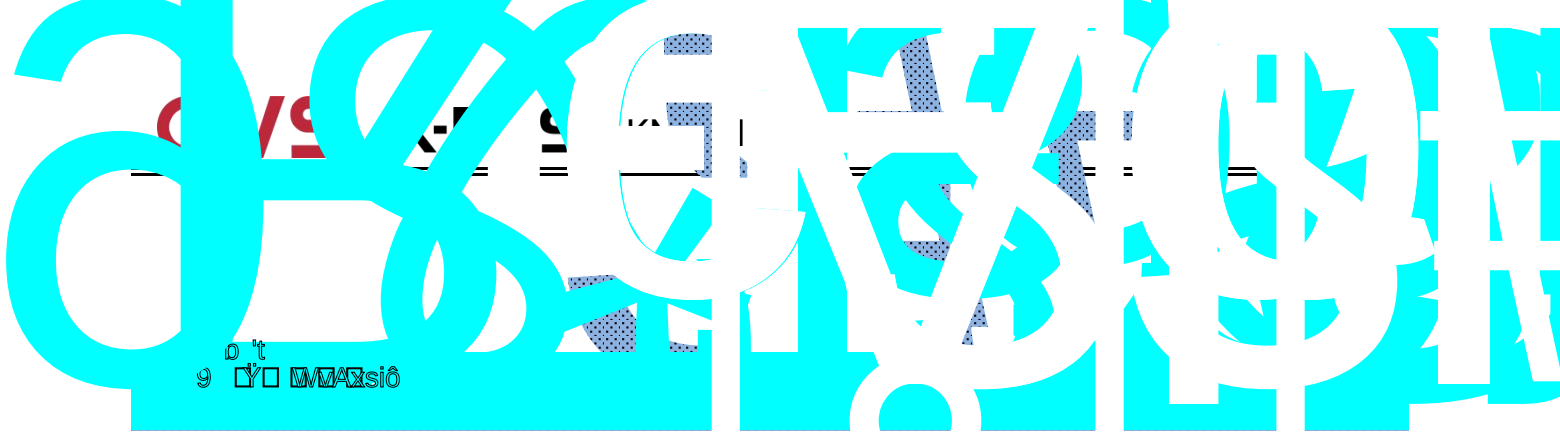
k

-- 0...2 0 / 0...

k

0...2 0

0...



0't
9 Y X W X si 0

1...255

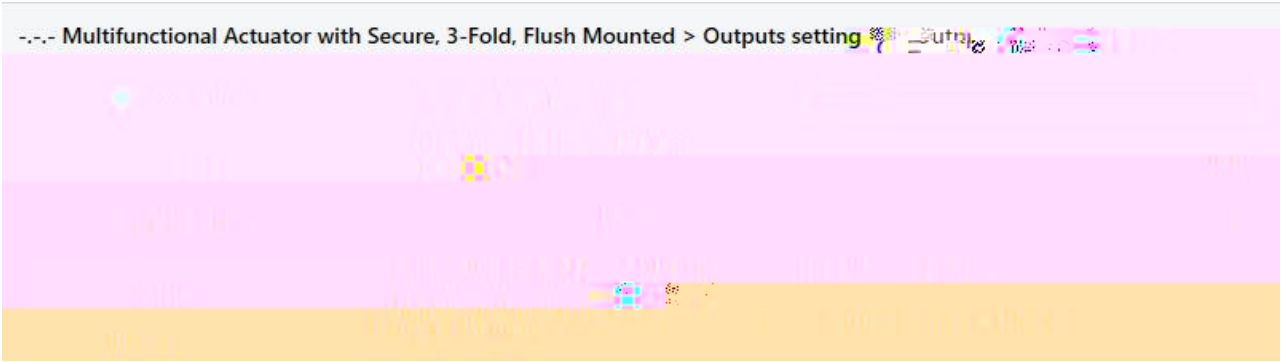
0

0

2.

“Type of time function” “Staircase” 4.4.2.3

k



4.4.2.3 Output X: Time - Staircase

“Staircase function”

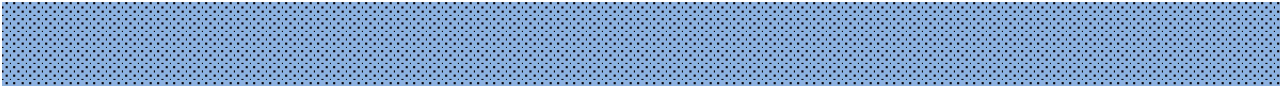
k



k

0, 1000

0,



, k

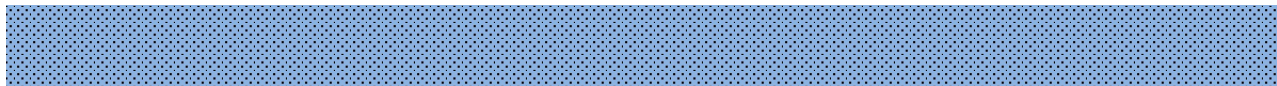
1 0
1 0
0/1 ,
1 , 0

“Start with ‘1’ , Stop with ‘0’” “1” “0”

“Start with ‘1’ , no reaction with ‘0’” “1” “0”

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

"Start with '1', OFF with '0'", "1" "0" k



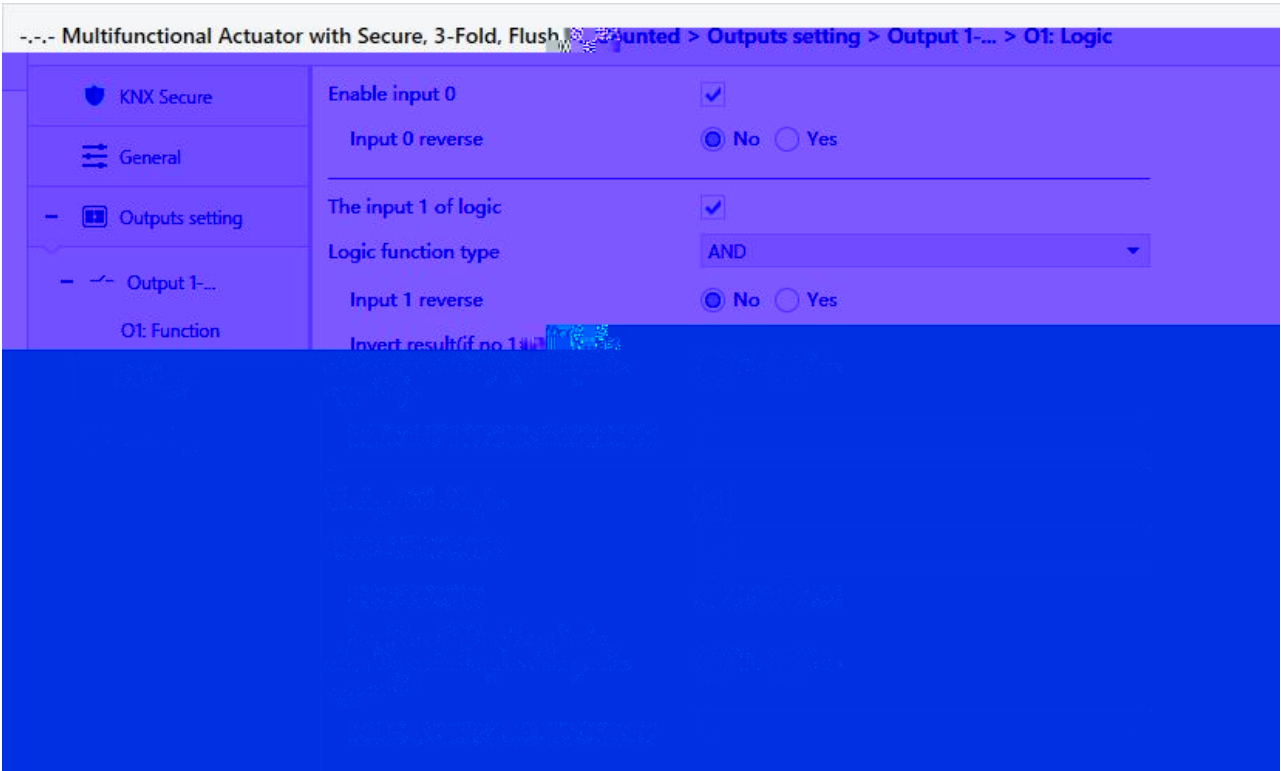
4.4.1(2) "Output X: Function"

"Function of "Logic" "

"Enable"

4.4.3

k



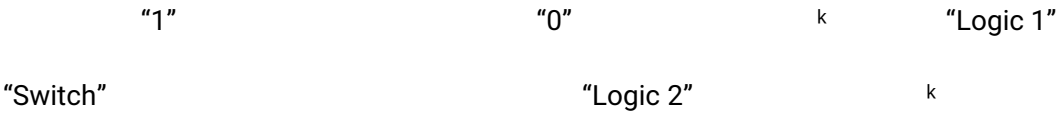
4.4.3

Output X: Logic

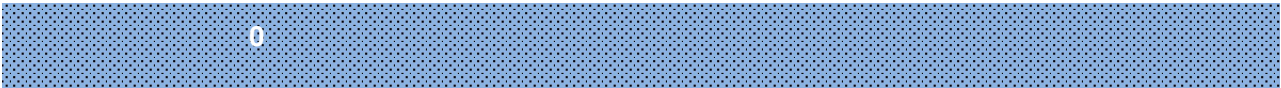
2

"Switch"

k



k



"Input 0"

k "Input 0"

"Switch"

k

"Input 0"

0/1/2

Input 0/1/2

“Yes”

“No”

k

(1,2)

1 2

“Logic 1”

“Logic 2”

k

k

(AND, OR, XOR)

“GATE”

k

“GATE”

“1”

k

Input 1

1

Input 0

Input 2

1 Input 1

Input0/Input1

k

	Input0(Switch)	Input1	Result of Input 0/1	Input2	Output	
AND	0	0	0	0	0	1 1 k
	0	1	0	1	0	
	1	0	0	0	0	
	1	1	1	1	1	
OR	0	0	0	0	0	1 1 k
	0	1	1	1	1	
	1	0	1	0	1	
	1	1	1	1	1	
XOR	0	0	0	0	0	1.
	0	1	1	1	0	
	1	0	1	0	1	
	1	1	0	1	1	
GATE	0	Closed		Closed		open 1
	0	Open	0	Open	0	
	1	Closed		Closed		
	1	Open	1	Open	1	

1 !	"Input 1"	"Switch"	"Input 2"
		k	
2 !		k	
3 !			k
4 ! (GATE)		k	Input1
	Input2	k	Input0

(,1 ,0)

"Yes" "No" k

1/2

“Logic 1/2”

“1” ! “0”

k

0

1

..

4.4.1(2) “Output X: Function”

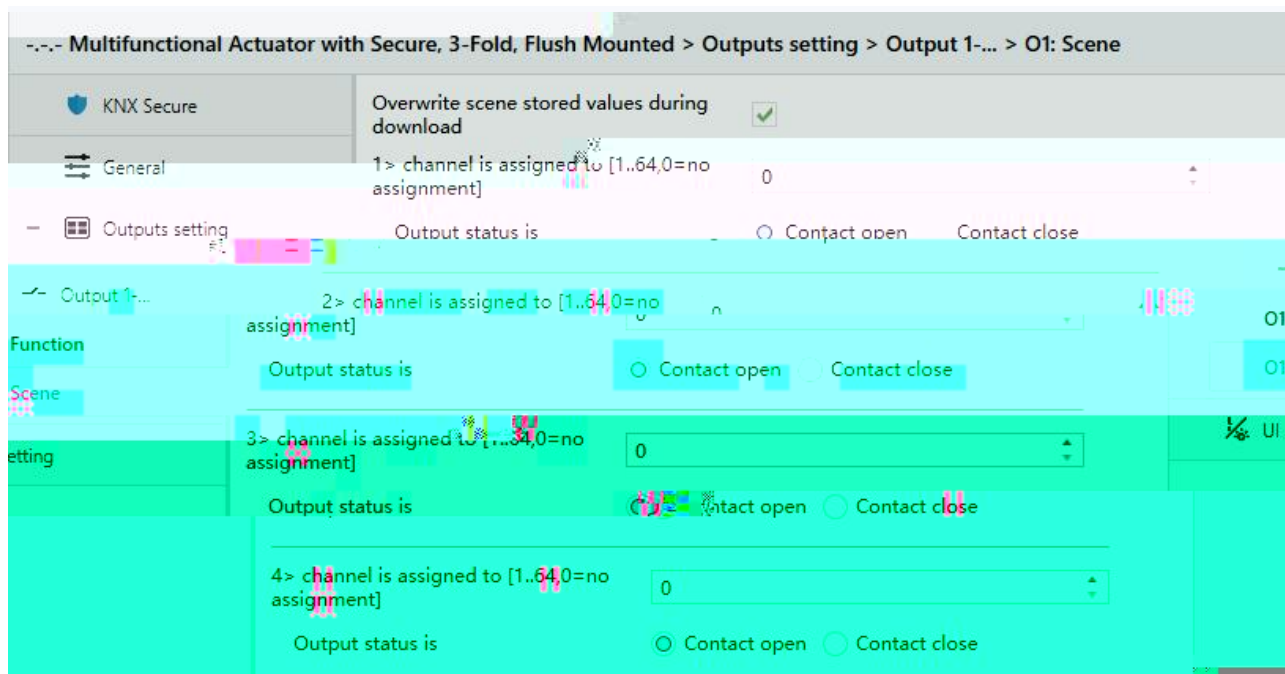
“Function of “Scene” ”

“Enable”

4.4.4

8

k



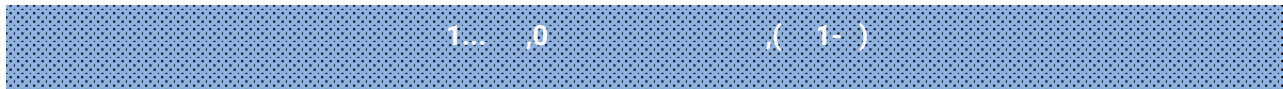
4.4.4

Output X: Scene

k

k

k



64

k

8

k

1...

O

k

• •

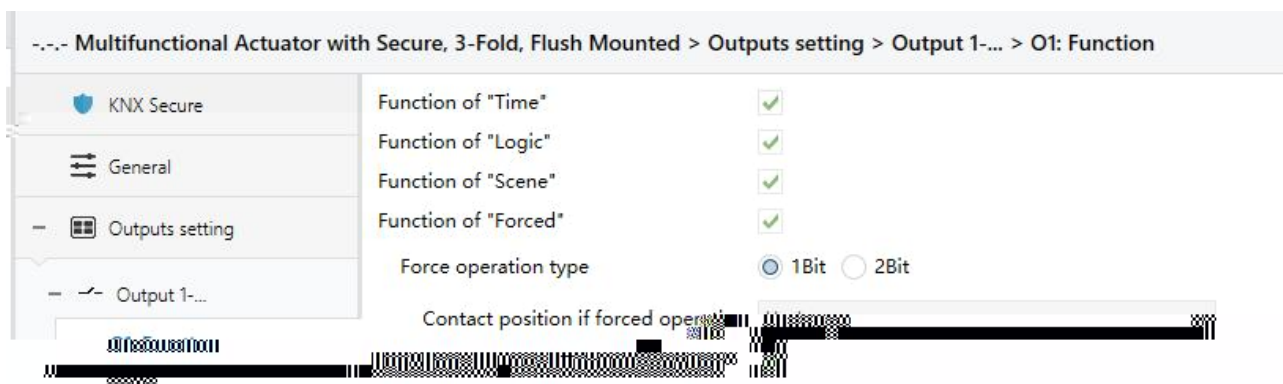
4.4.1(2) "Output X: Function"

“Function of “Forced” ”

“Enable”

4.4.5

k



4.4.5

Output X Forced

“Forced output”

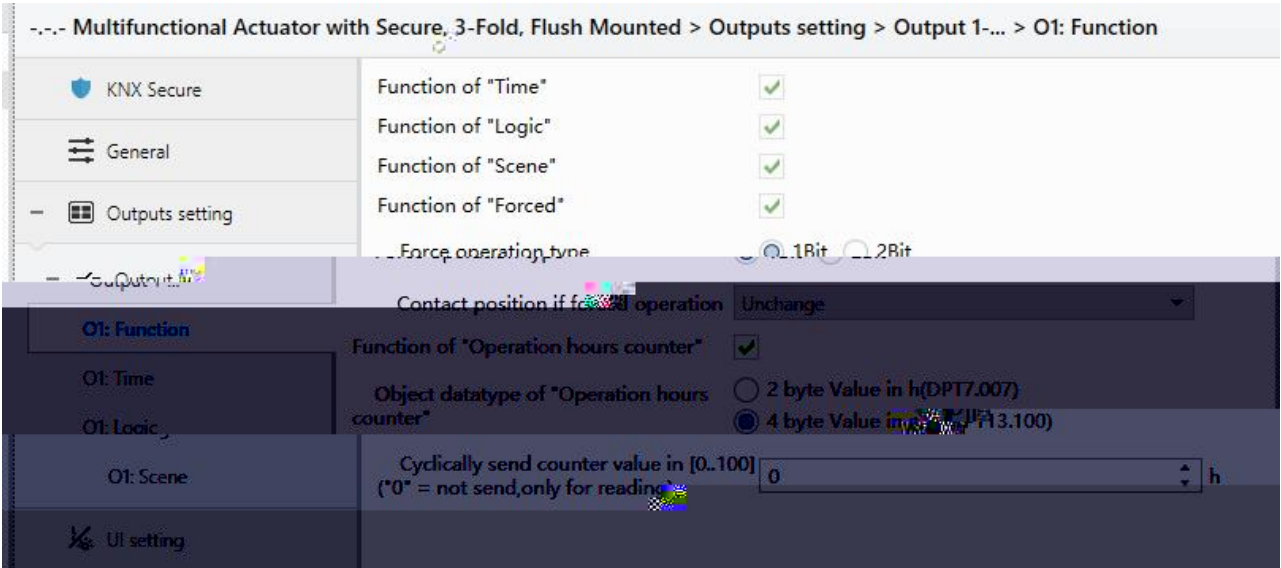
k



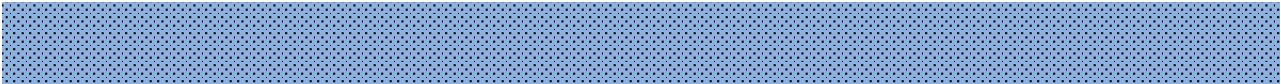
...

4.4.1(2) "Output X: Function" "Function of "Operation

hours counter" " "Enable" 4.4.6 k k



4.4.6 Output X Operation hours counter



k

2 (.00)
(1.100)

2 byte Value in h (DPT 7.007) 2 byte 4 byte Value in s (DPT 13.100)
4 byte k



k 0-100

0 1-100 1 100 k
Object datatype of "operation hours counter" 2byte

4byte s k

..	--	(	)	
	Work mode of the channel is		Heating actuator (without controller)	
4.5(1)	4.5(2)	k		k
			k	
		1bit	1byte	k 1bit
On-off control value			1byte	Control value
(Continuous)		k		
	0%/OFF		100%/ON	k 0~100%
	x%		k	

--- Multifunctional Actuator with Secure, 3-Fold, Flush Mounted > Outputs setting > Output 1...

KNX Secure

General

Outputs setting

Output 1...

111 setting

Description (max 30char.)

Work mode of the channel is

Valve type

If bus failure, output status is

If bus recovery, valve position

PWM cycle time for continuous [60..65535]

Control type

Reply the status of contact state

Function of monitoring

Cyclic monitoring control value [0...65535]

Valve position during fault

Report fault status

Function of forced operation

Valve position during forced operation

☐ Switch actuator
☒ Heating actuator(without controller)
☒ Normal (de-energised closed)
☐ Inverted (de-energised open)

Unchange

Unchange

120 s

☒ 1bit (on-off control or PWM)
☐ 1byte (Continuous)

Yes, 1=contact close; 0=contact open

☒

120 s

Unchange

☒

☒

Unchange

4.5(1) Output X Heating actuator(without controller)_1bit on-off control or PWM

-.-. Multifunctional Actuator with Secure, 3-Fold, Flush Mounted > Outputs setting > Output 1-...

4.5(2)

Output X Heating actuator(without controller)_1byte(Continuous)

$$\begin{pmatrix} - \\ \end{pmatrix}$$

"Inverted(de-energised open)"

k

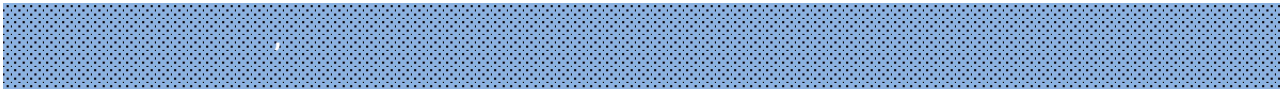
“Unchange”

“Contact open”

“Contact close”

k

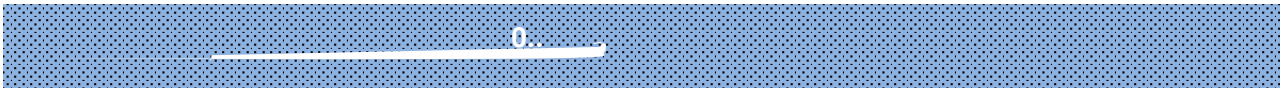
k



k

0%
10% 2
20% 1
...
0% 2, 0
100%

20% PWM 100s 1 40s 20s, 80s k

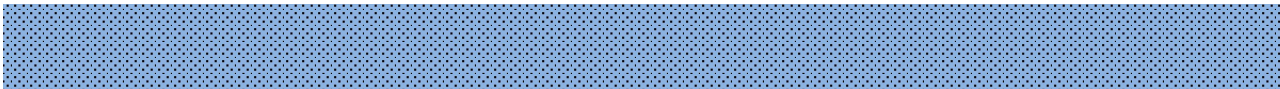


(PWM) k 0..

k

1 () !

k



k

1 (-)
1 ()

“1bit”

k

PWM k

PWM k

“1byte” B- 0 ~25 P

Continuous-action control

" k 0

100%

0%...100%

k

k

--

1byte

Continuous

k

1bit

1Byte

k

,0% 0

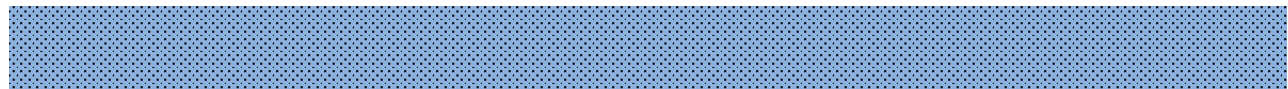
1 (1)

,0% 1

0 (1)

,

(1)



k

,0

1

,1

0

"No reply"

"0=contact close ; 1=contact open"

"status of contact"

"0"

"1"

"1=contact close; 0=contact open"

k

k



k

Function for monitoring is k

-- 0..

k

k

k

k

k

0..

k

k

--

PWM

k

0%

10% 2

...

100%

20% PWM

100s 1

40s

20s, 80s

Unchange

k

--

k

k

k

Report fault

Report fault

1

0

k

--

PWM

k

0%

10% 2

...

100%

Unchange

k

k

40%

60%

60%

k

monitor

k

•

•

k

k

k

...

1

k

. .1

“Output Curtain”

4.6.1

k

Multifunctional Actuator with Secure, 3-Fold, Flush Mounted > Outputs setting > Curtain-...

KNX Secure

General

Outputs setting

Curtain-...

C: Drive

C: Auto.

Description (max 30char.)

Config channel function as

Motor type

If bus recovery, position is

If bus failure, position is

After reference movement,Position is

Position of slat after arriving on low position

☒ Venetian Blind

☐ Shutter

☒ AC-motor

☐ Dry contact-motor

Unchange

Unchange

Disable

100 %

When blind is under end position / Up/ down object function is

Set response mode for position

☐ Respond after read only

☒ Respond after change

4.6.1

Output Curtain

k

“Venetian Blind”

k

“Shutter”

“Venetian Blind”

k

“Venetian Blind”

k

k

-

-

AC-motor

Dry contact-motor

• •

1.. 0 *100

Dry contact-motor

k

1.. 0

k

• •

Dry contact-motor

k

-

-

Three-wire

/ /

+

+

+

+

k

Four-wio

0%

k

k

k

k

“Unchange”

“Up”

“Down”

“Stop”

k

k

k

k

“Disable”

k

“No reaction”

“reference movement”

‘0’

‘1’

k

“Move to saved position”

“1”

‘0’

k

k

k

k

k

k

k



k

0%/10%/ / 0%/100%

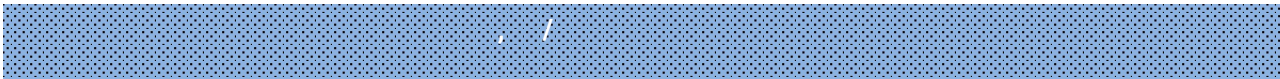
“

“Move UP/DOWN”

“1”

40% k

k



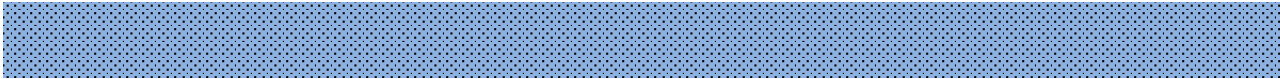
/

“Move UP/DOWN”

k

k

k



k

“Respond after read only”

“Position status 0..100%/Slat status 0..100%”

“Respond after change”

“Position status 0..100%/Slat

status 0..100%”

k

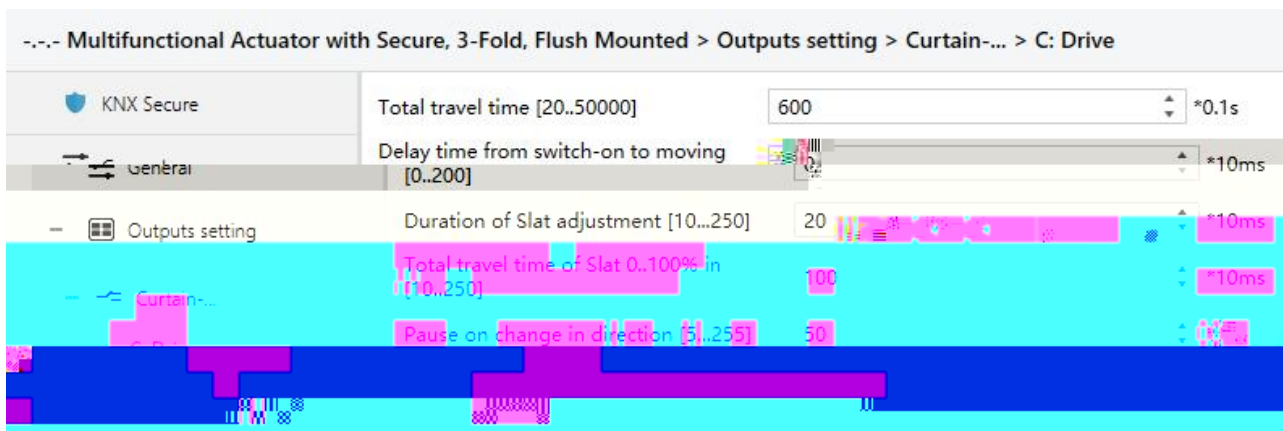
. .1.1

“Curtain: Drive”

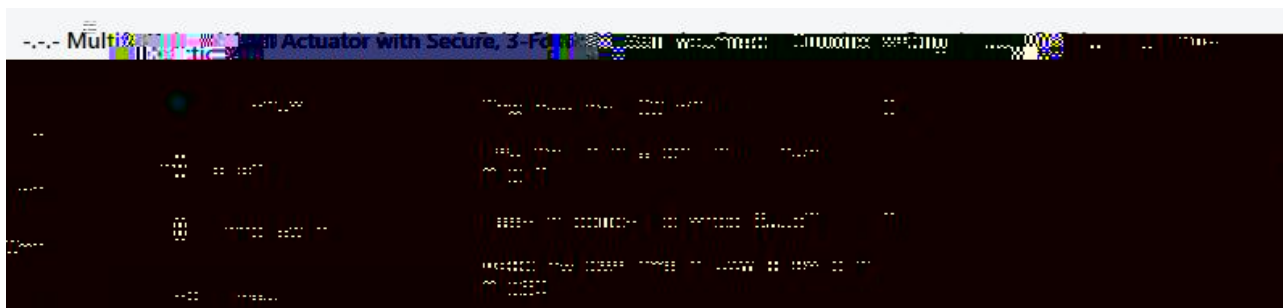
4.6.1.1

k

k



Venetian Blind



Shutter

4.6.1.1

Curtain Drive

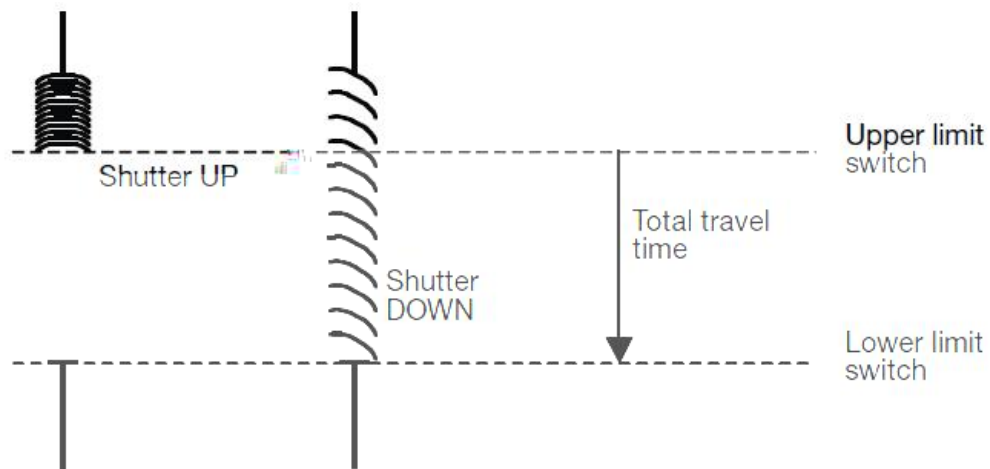


k

k

k

k



!

k

- 0..200 *10

/

k 0..200

k

10 2 0 *10

k

k

k

KNX/EIB KNX

. 1.2

“Curtain: Auto.”

4.6.1.2

k

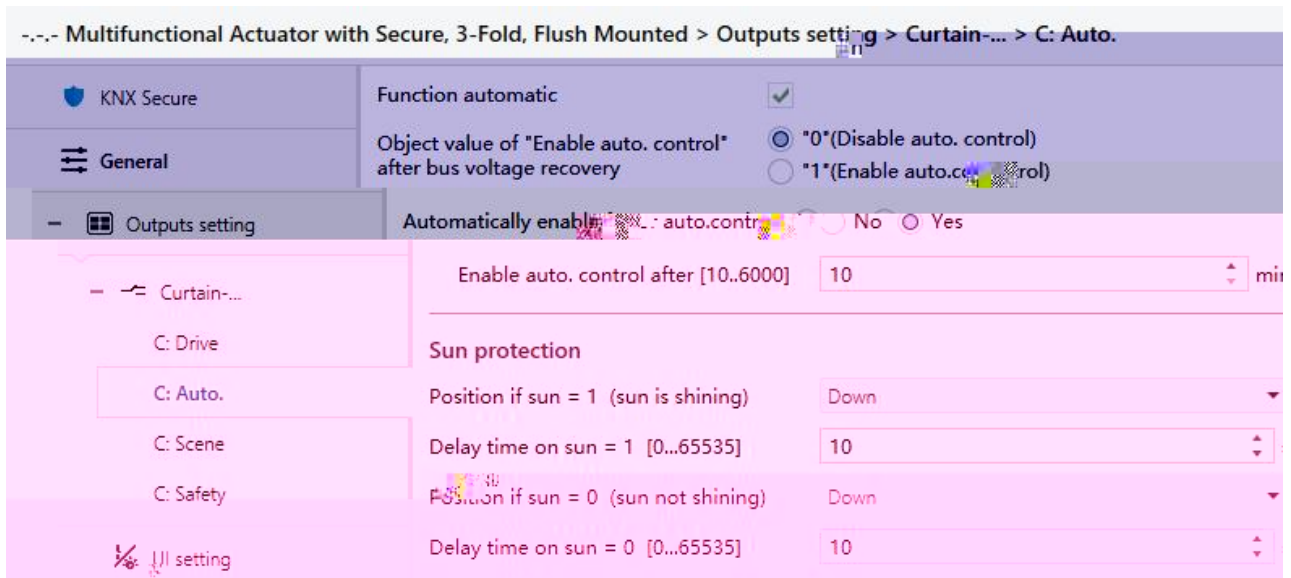
k

/

k

/

k



4.6.1.2

Curtain Auto.

k

“Enable auto. control” ! “Sun operation” ! “Sun:

blind/shutter position 0..100%” “Sun: slat adj.0..100%”

k

“Enable auto. control”

“1”

“Enable auto.

control”

“0”

/

)

(

k

k

1

10, 000

k

“Enable auto. control”

k

0

(

.

)

1

(

.

)

“Enable auto. control”

0

“Enable auto. control”

1

k

.

“Enable auto. control”

k

“yes”

k

--

.

10、000

k

“ Enable auto. control”

k

k



--

1 (

)

“Sun operation”

“1”

k

1

"No reaction"
 "Sun operation"
 "1"

k

"Receive 1 byte value"
 "Sun operation"
 "1"
 "Sun:

blind/shutter position 0..100%"
 "Sun: slat adj. 0..100%"

"130"(51%)

k

--
 1 0...

"Sun operation"
 "1"

k
 0

--
 0 (
)

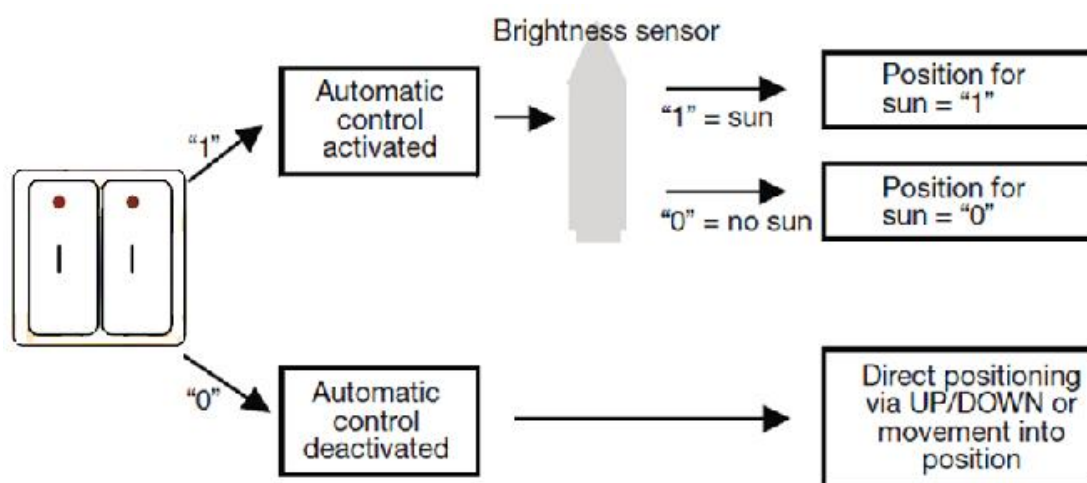
"Sun operation"
 "0"

k

--
 0 0...

"Sun operation"
 "0"

k
 0



k

/

k

k

k

1.

"Curtain: Scene"

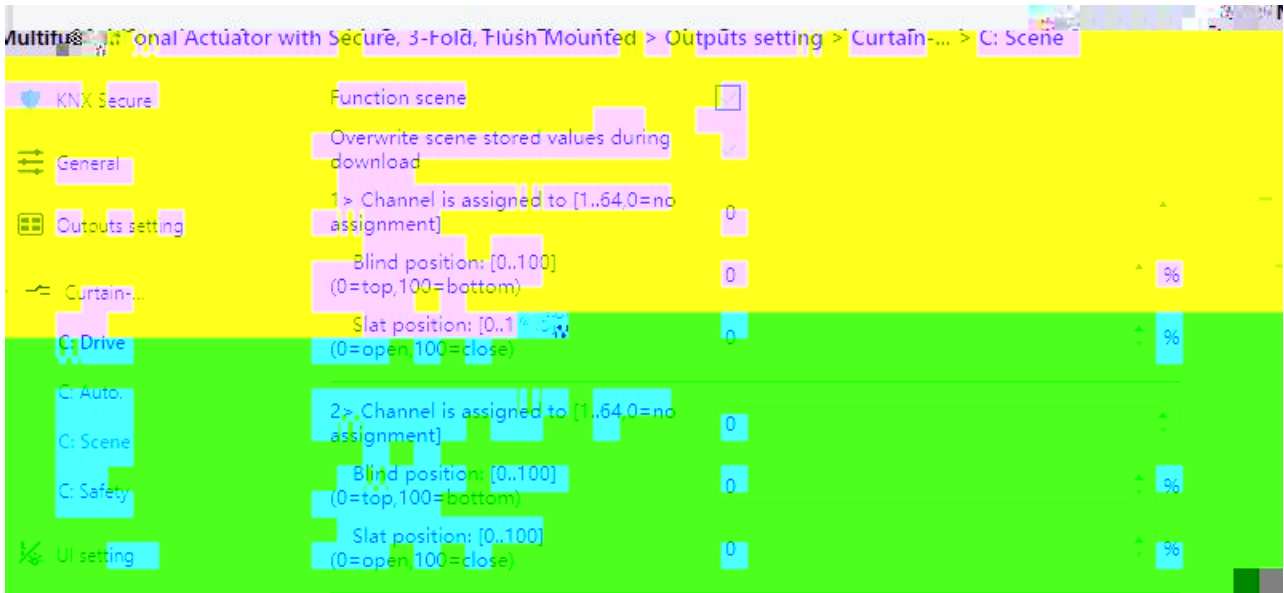
4.6.1.3

k

8

,

k



4.6.1.3

Curtain Scene

k

k

k



64

k

8

k

0...

0

-- / 0...-100% (0% ,100%)

0 100% 0% , 100%

-- 0...-100% (0% ,100%)

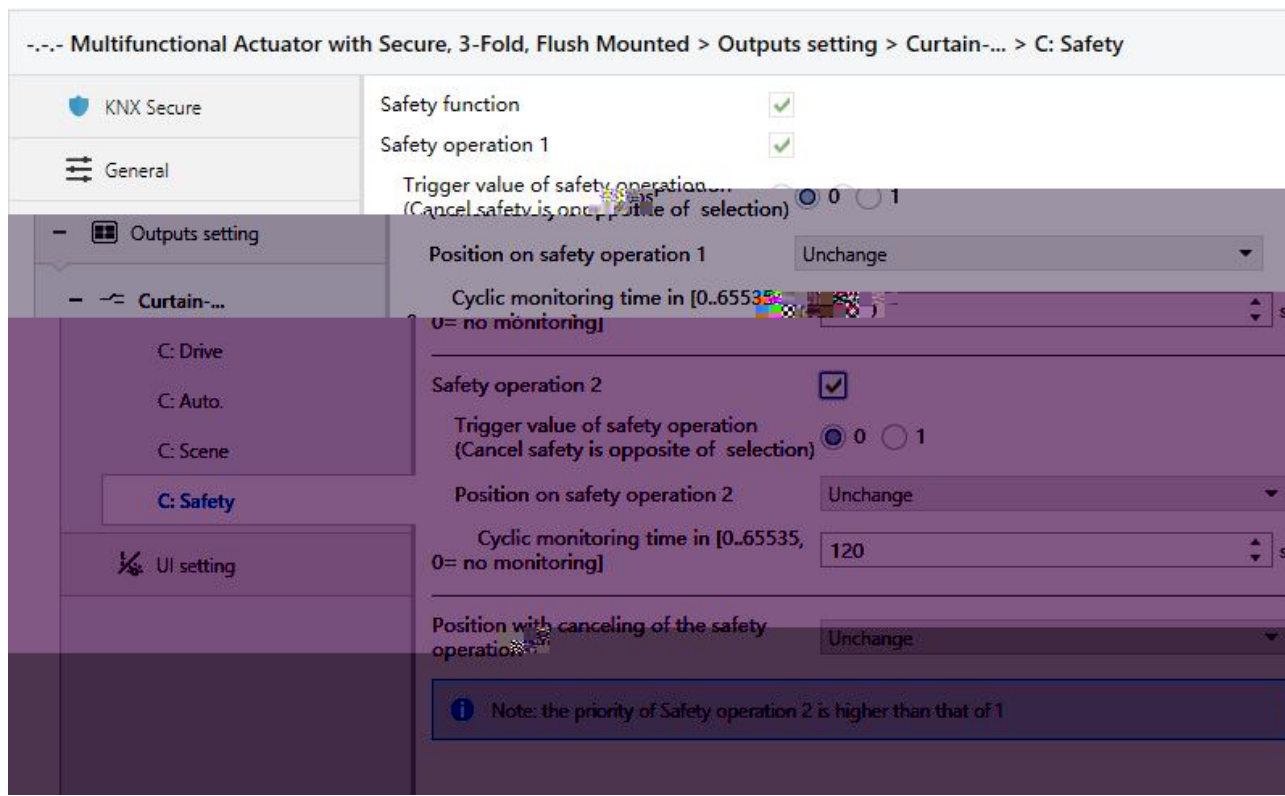
0 100% 0% , 100%

. .1.

“Curtain: Safety”

4.6.1.4

k



4.6.1.4

Curtain Safety

k

k

1/2

k

“Safety operation 1/2”

k



k

0

1

“ ”

“Safety operation 1/2”

“0”

1

k

/

k

k

/

/

k

k

k

/

safety 1 k

. .2

“Shutter”

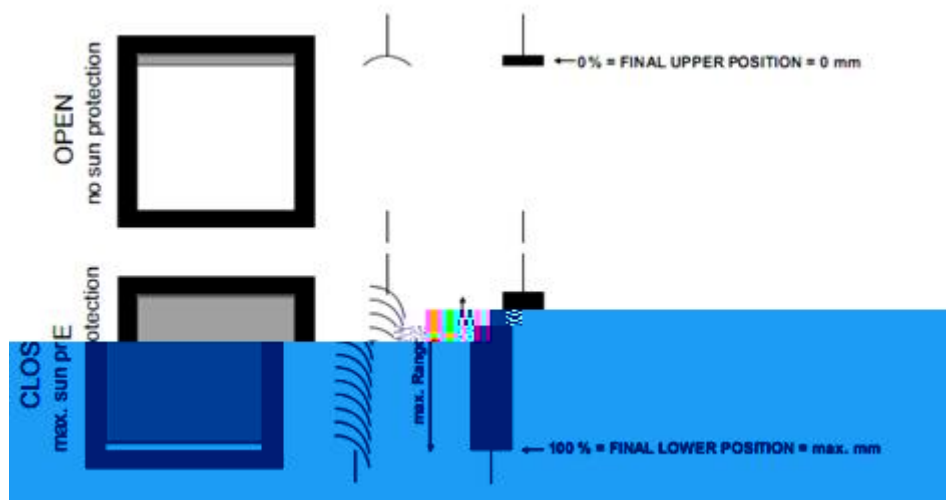
“Venetian Blind”

k	"Shutter"
---	-----------

k “Shutter”

k

“Shutter” “Venetian Blind”



Venetian Blind Shutter

“Shutter”

“Venetian Blind”

(

 $)^k$

2nd

1

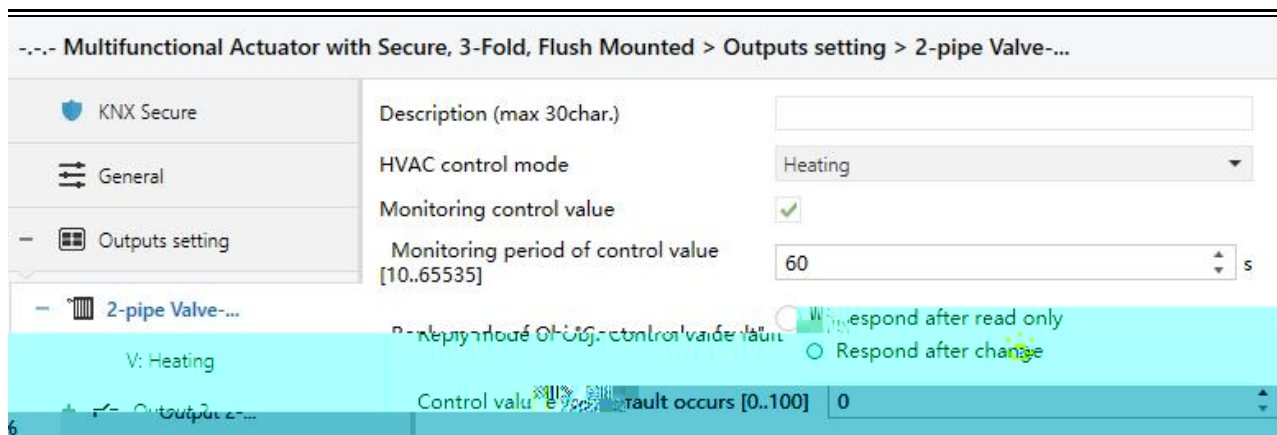
1 !

2 !

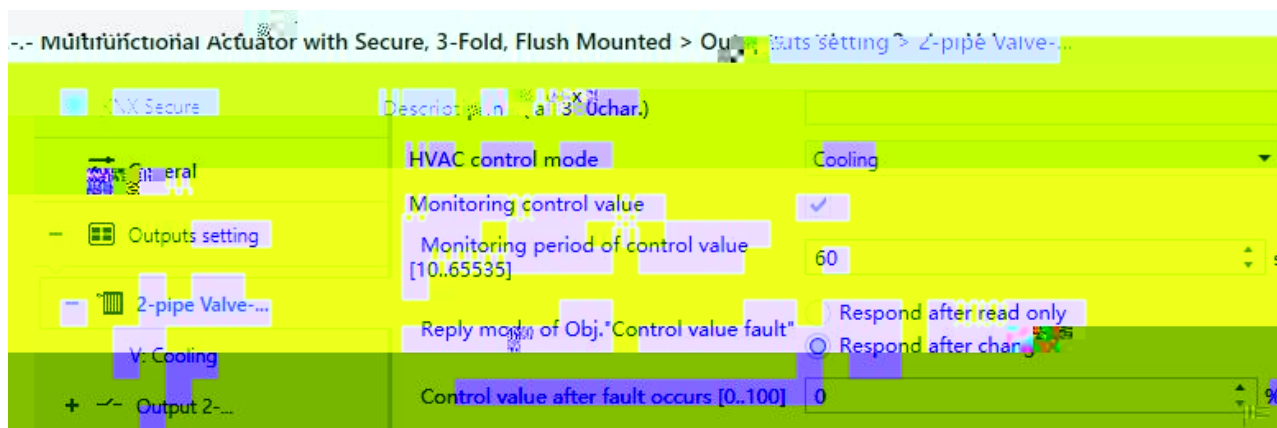
k

• •

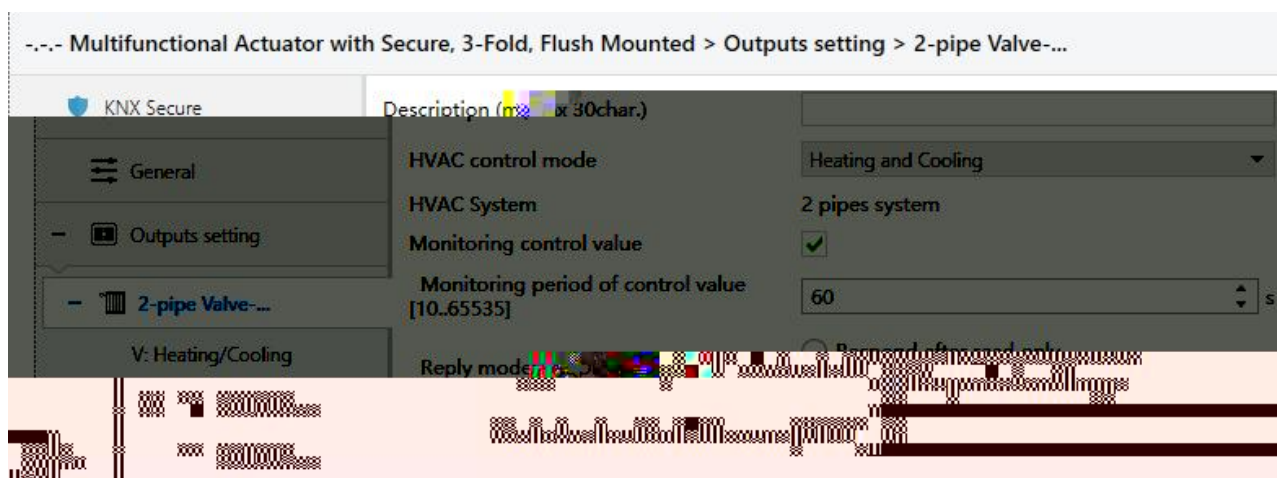
! !



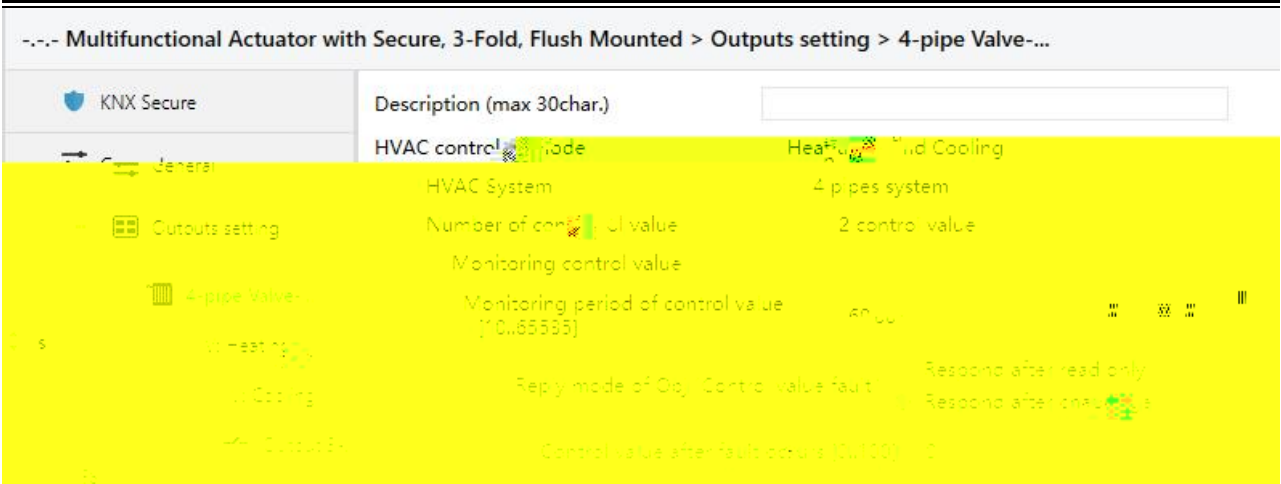
4.7 2 Output Valve--Heating



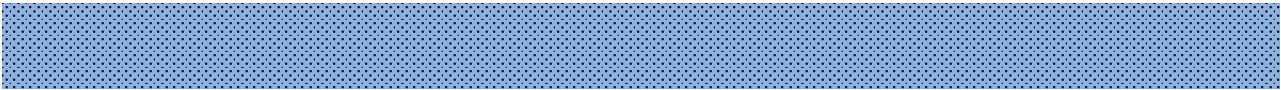
4.7 3 Output Valve--Cooling



4.7 4 Output Valve--Heating and Cooling (2-pipes)



4.7(5) Output Valve--Heating and Cooling (4-pipes)



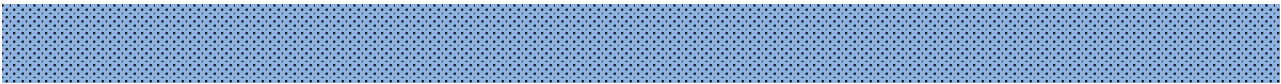
HVAC

Heating

Cooling

Heating and cooling

k



24HVAC

k

2 pipes system:

4 pipes system:

k



44

k



KNX/EIB KNX

2 state-ON/OFF

Continuous, PWM PWM

3 point, open and close:

k

2-

-

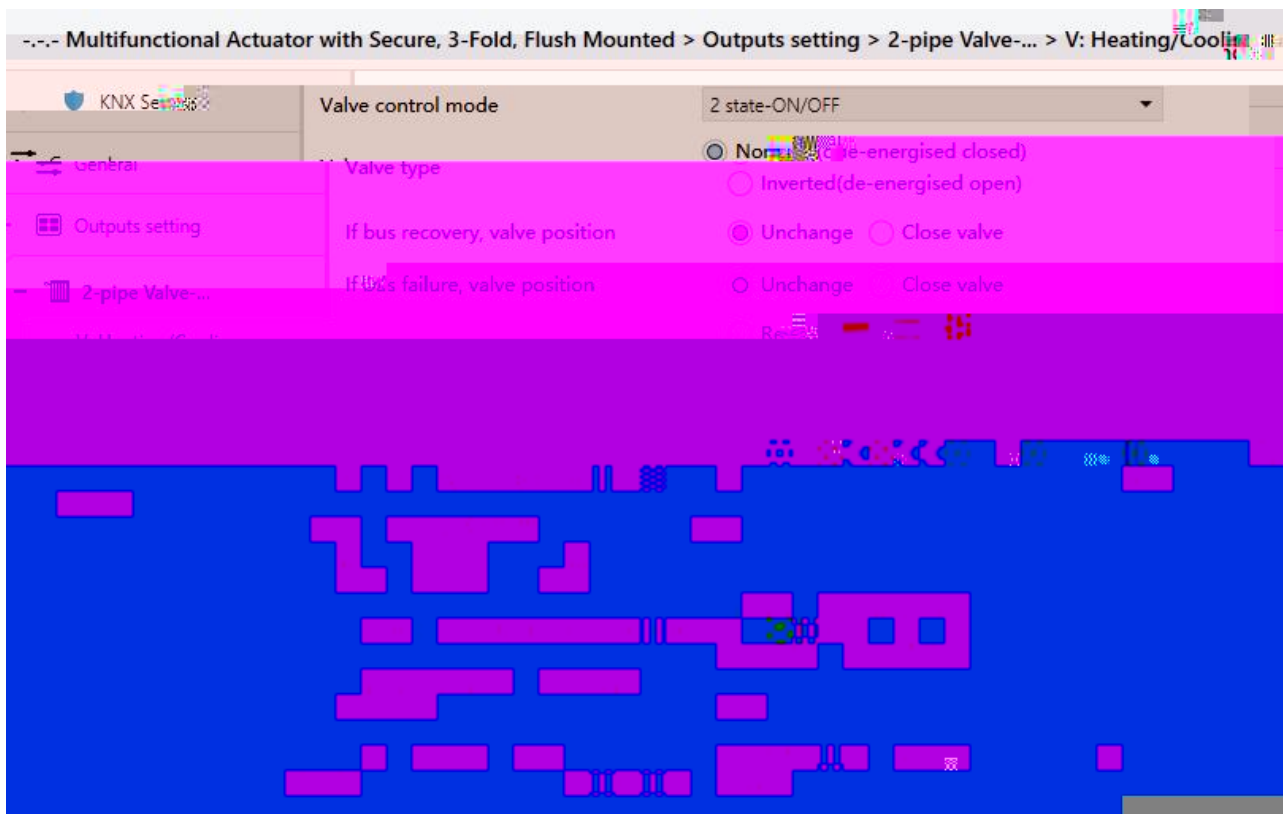
k

/

k

4.7.1.1

k



4.7.1.1

"2 state-ON/OFF"



k

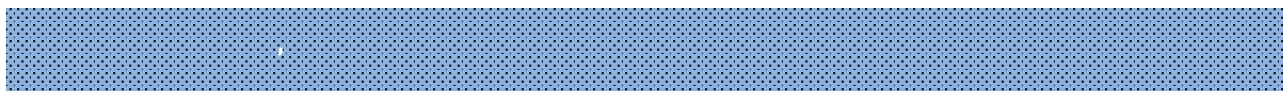
(-)

(-)

Normal(de-energised closed)

Inverted(de-energised open)

k

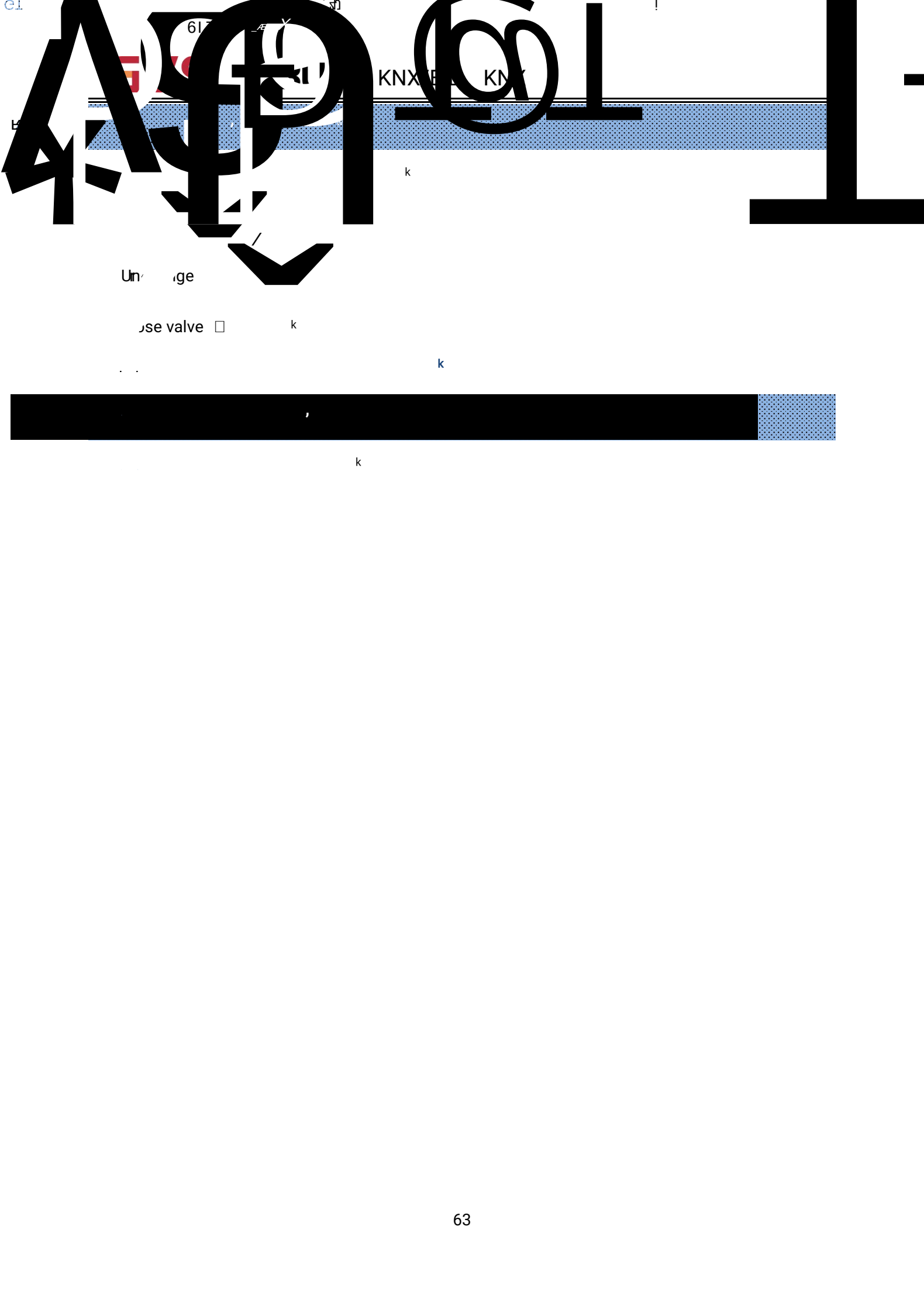


k

Unchange

Close valve

k



" "

k

k

11

/

2

k

/1

/0

/

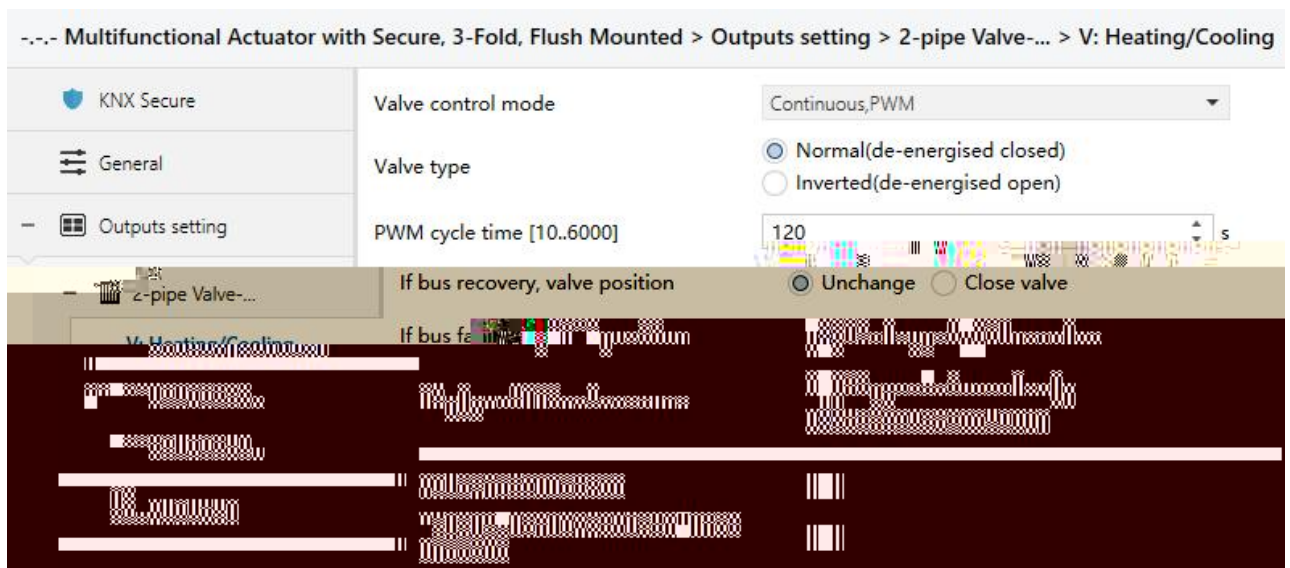
/

k

k

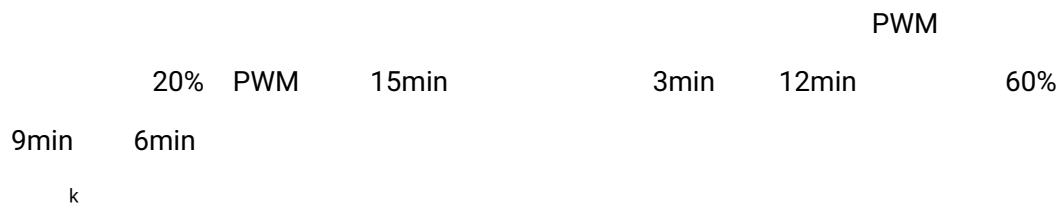
4.7.1.2

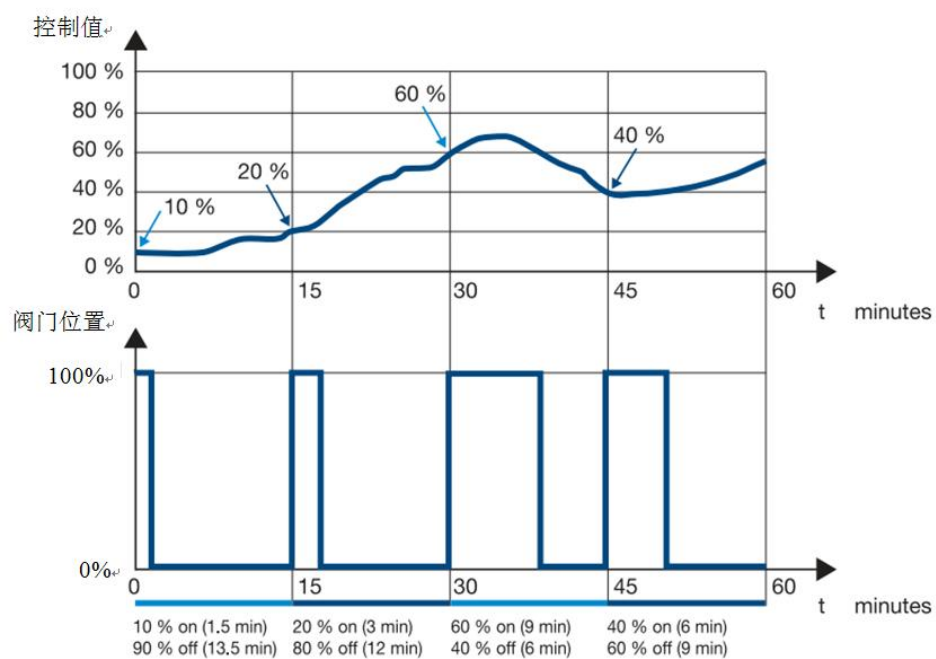
4.7.1.2 k



4.7.1.2 "Continuous, PWM"

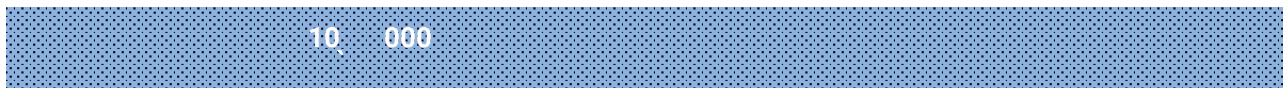
k





“2state-ON/OFF”

PWM

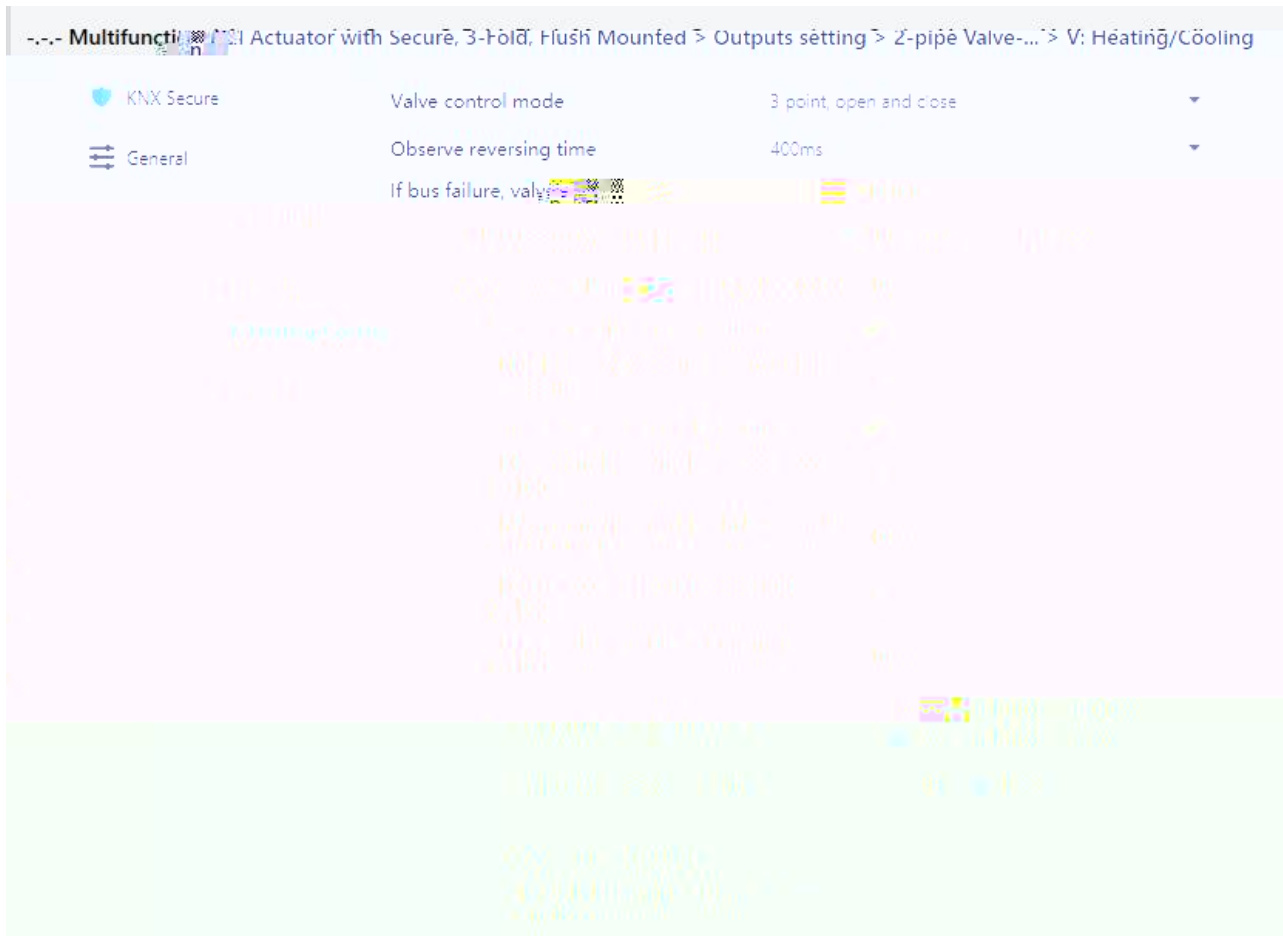


PWM

10 000

(-)	0	relay opened relay closed	Valve status, Heat/Cool
(-)	0	relay closed relay opened	Valve status, Heat/Cool

4.7.1.3 k

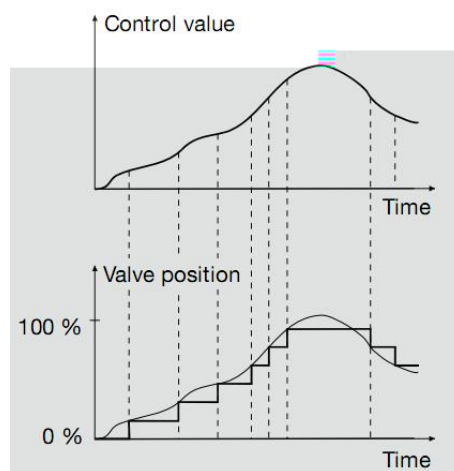


4.7.1.3 “3 point, open and close”

20%

20%

k



GVS

K-BUS

KNX/EIB

KNX

3

100

/200

/

/1

1 2 /1

k

0%

100%

0

000

180s

20%

60%

20%

60%

Unchange

Close valve

k

k

k

k

k

0%

0%

0

000

0

000

k

• •

1

0%

k

1

100

100

101

0%

k

100

50%

101

60%

101

40%

0%

40% k

5%

+

Ô

5%

Ô 5%

1min

1min

1min k

k

k

k

k



k

k

• •

.

0..100 %

• •

.

0...100 %

• •

0...100 %

• •

0...100 %

k

0...100 %

Min. controller value for closed valve

Max. controller value for fully opened valve

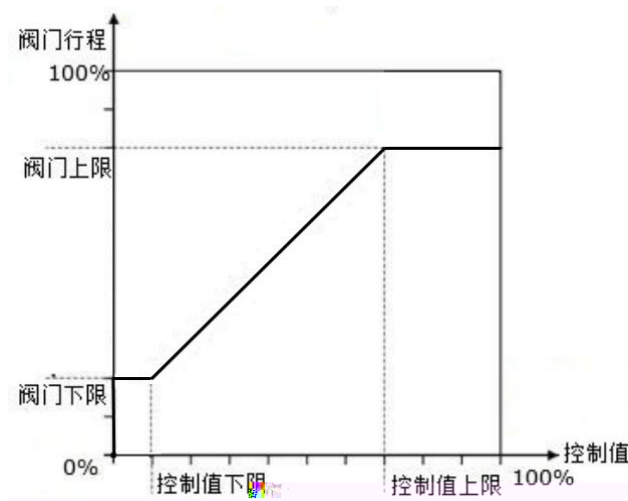
Lower valve position for opening

Upper valve position for opening

k

10%20%

70%80%



k

Respond after read only

Valve

status, Heat/Cool

k

Respond after change

Valve status,

Heat/Cool

k

k

1

1

1bit

1bit

Valve status, Heat/Cool

k

1byte

1byte

Valve status, Heat/Cool

k

..

0

0

1

1

0

Valve status, Heat/Cool

1

GVS

K-BUS

KNX/EIB KNX

3

0

0

k

1 !

k

2 !

,

!

/

k (1840)

k

k

!

k

□ □

□ □ □

□ □ □

□ □

□

||||

1 ^

~



...

1

k

..1

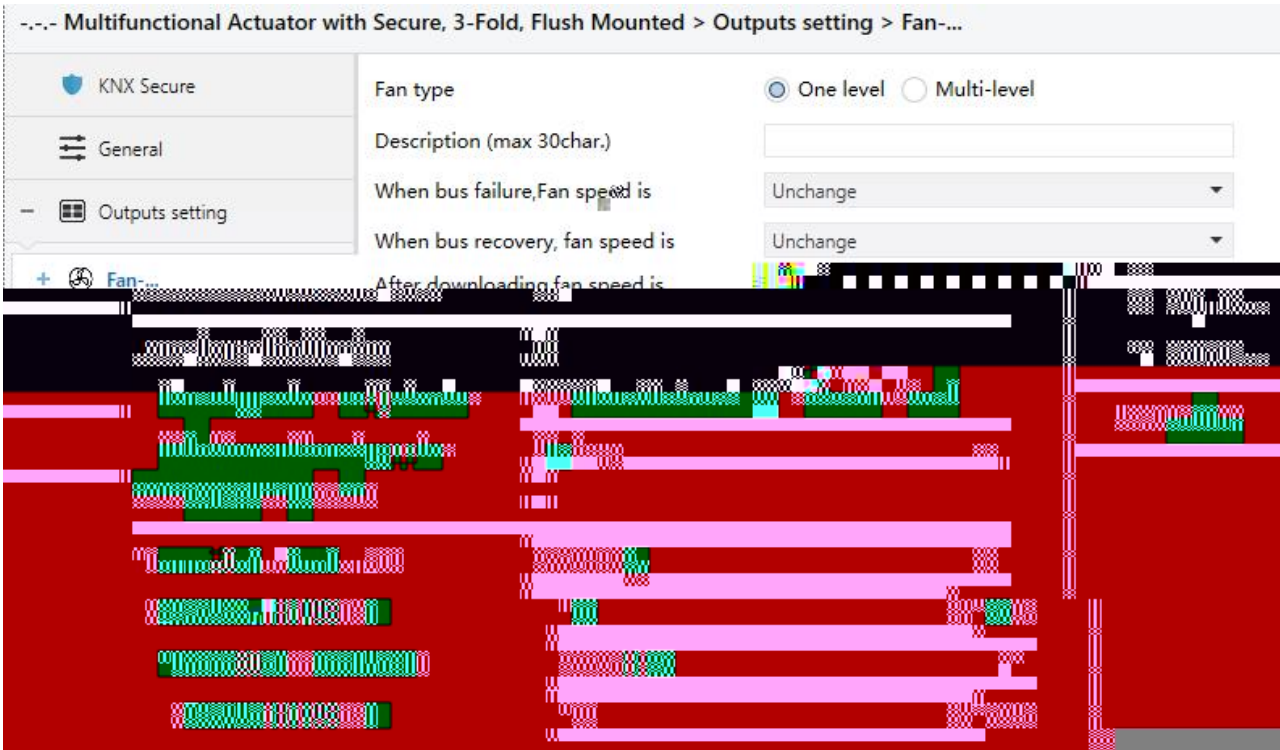
--

Fan type -- One level

4.8.1

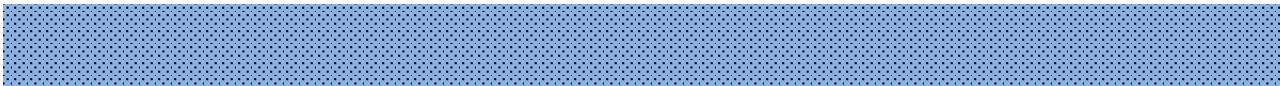
1

k



4.8.1

Fan type -- One level



k

[illegible]

k

Unchange:

OFF

ON

As before as bus fai

[illegible]

AGI ☐ ☐

- 1,790 • 6 BM

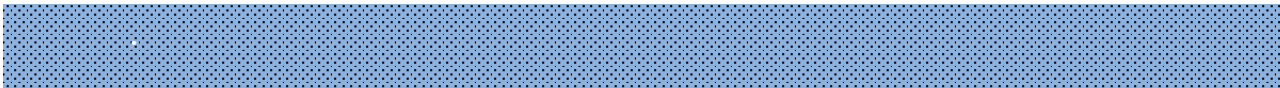
k

Unchange

OFF

ONk

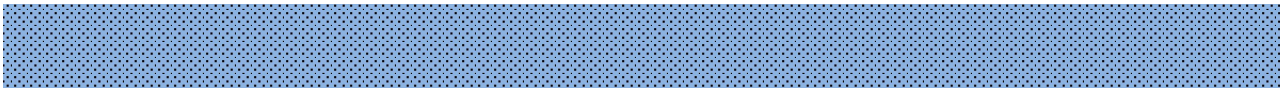
k



k

4.7.2.1k

!k



k

None

Switch delay

ON

“Delay time

[1..65535]*0.1s”k

“Fan speed”

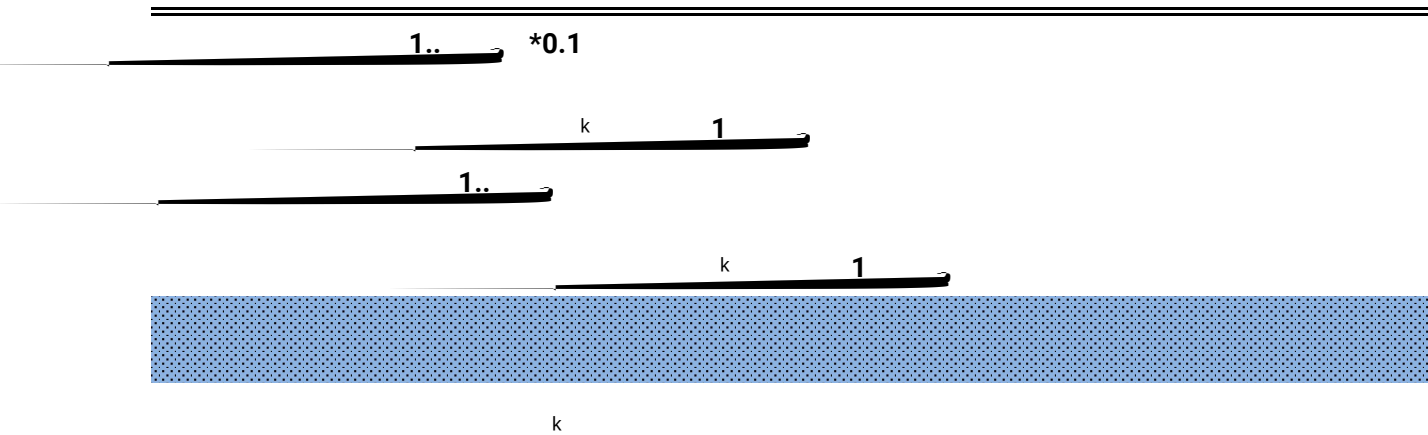
“1”

k

Minimum time

“Minimum time[1..65535]s”k

k



None

Switch delay

OFF

"Delay time

[1..65535]*0.1s"

Minimum time

"Minimum time[1..65535]s " k

k

k



k

1...65535



k

1...65535

1=Auto/0=Cancel

Automatic function

1

0

k



k

k



k

k

k

.

10.. 000

k

10.. 000



Control

value

k

1, 100

k



k

0,

0

0

10

50

60

+

40

-

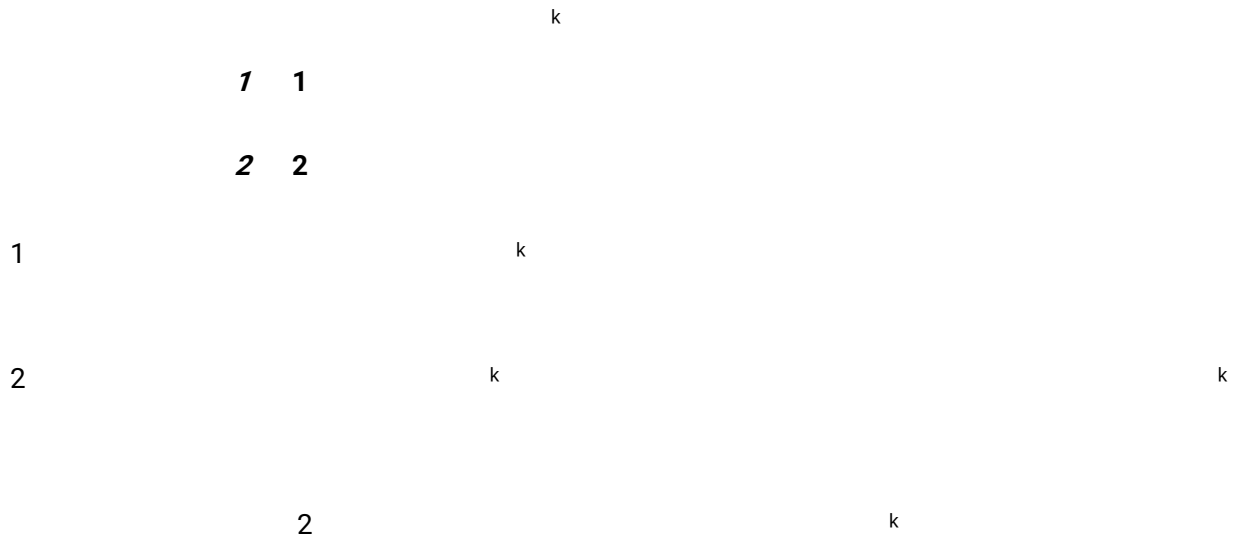
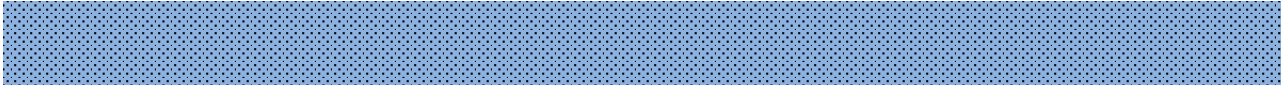
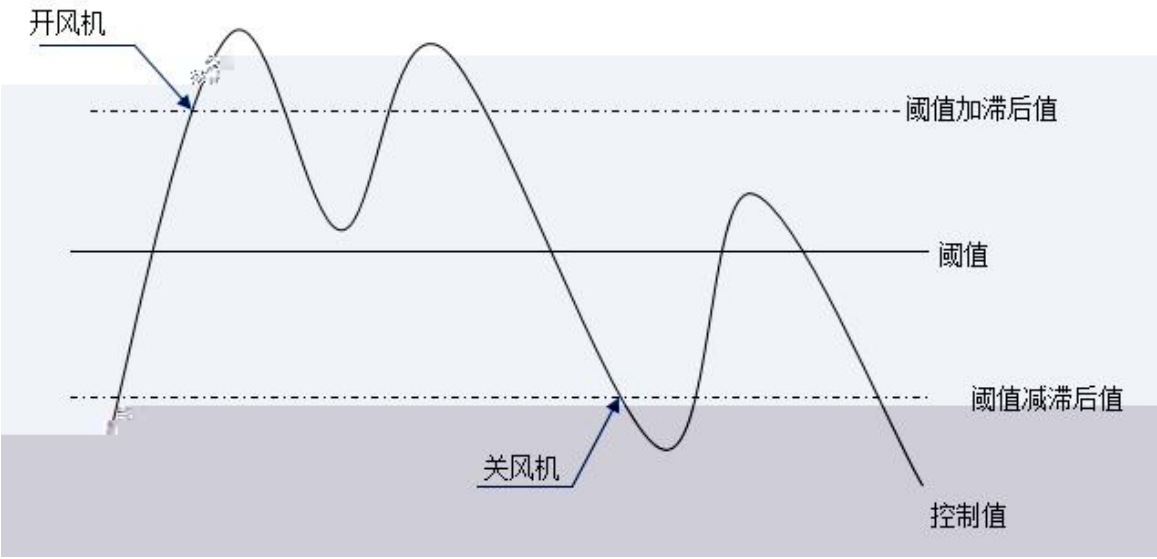
40~60

k

40

60

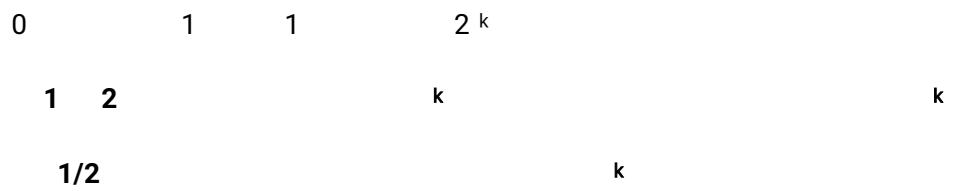
k



Latest value

Control value with switching object

Switching control value1/2



k

1

2

k



k

k

10..

k

10

k

Respond after read only

“Control value fault”

Respond after change

“Control value

fault”

k

0..100 %

k

0 100 %

. 1.2

Fan: Status

4.8.1.2

k

--- Multifunctional Actuator with Secure, 3-Fold, Flush Mounted > Outputs setting > Fan-... > F: Status

 KNX Secure

 General

—  Outputs setting

Reply mode of Obj. "Status Fan ON/
OFF"(1bit)

☐ Respond after read only

☒ Respond after change

Reply mode of Obj. "Status
Automatic"(1bit)

☐ Respond after read only

☒ Respond after change

4.8.1.2'

Fan: Status

. / (1)

k

Respond after read only

Status Fan ON/OFF

Respond after change

Status

Fan ON/OFF

k

. (1)

k

Status Automatic

1

0

k

Respond after read only

Status Automatic

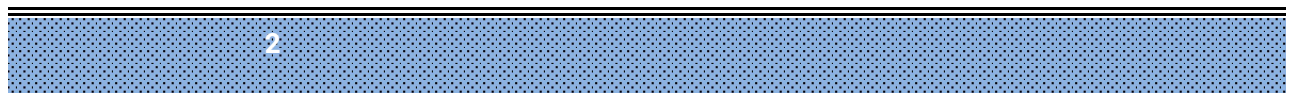
Respond after change

Status

Automatic

k

KNX/E



Multi-level

2

3

k

2

3

k

3

k

2

k



k

Changeover switch

k

k

Step switch

k

3

3

Output 1&2&3

2

2

Output 1&2

k

k



changeover switch

k

0 000

k

k



k

1

2

OFF

1 2 3

1 2 3 k

2

k

1

2

OFF

1 2 3

1 2 3

As before as bus fail

k

k

2

k

1

1byte

k

(.001)

(.100)

1/2L

Fan speed--1byte

k

1..100% 1..2

0

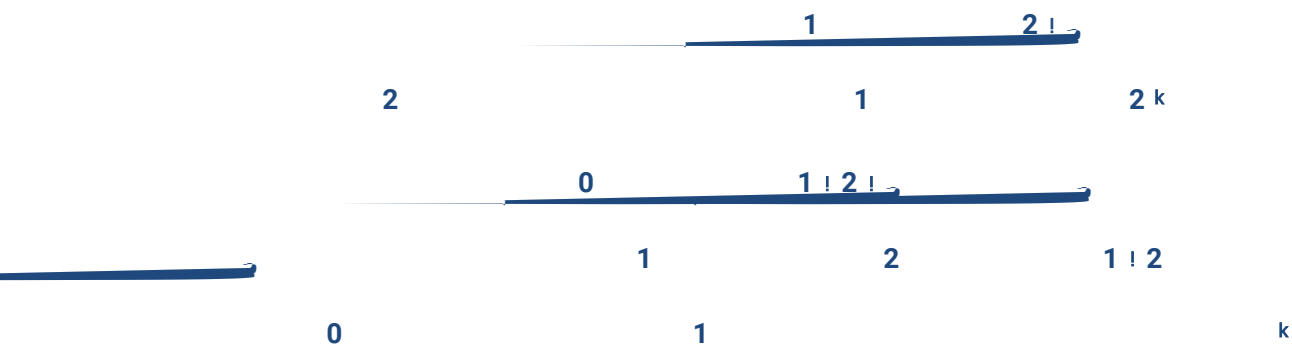
k

2

2, 1

Unchange

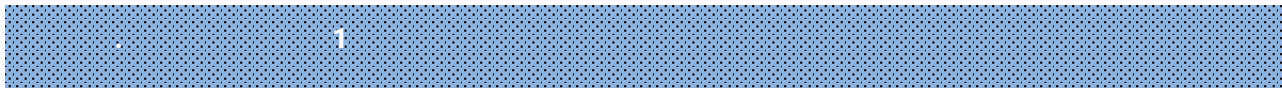
1	1		
1, off	1		
2	2		
2, 1	1	2	
2, 1, off	1	2	
3	3		
3, 2	3	2	
3, 2, 1	1	2	3
Off	k		



k

4.7.2.1

k



1bit

Fan speed 1 , Fan speed 2

Fan speed 3

k

1

0

k

ON/OFF

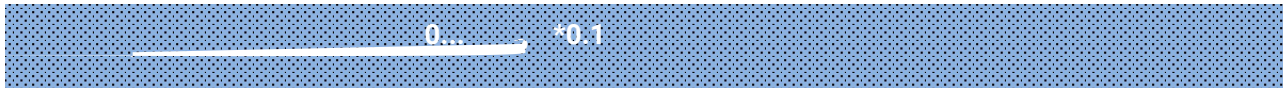
k

k

k

k

k



k

speed1

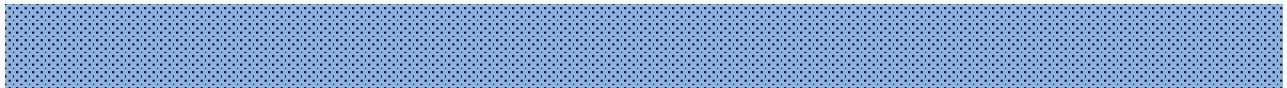
OFF

k

0

0

k



k

k

!

k

k

k

k

2

1

2

1

k

k

k

k

k



OM)J"l×;=9üt3"mð

OFF k 1/2

2

3

2

k

×

□ □ □ □ □ □ k

; &4... |×|×

k

k



1

k

1

□

□ □

□ □ □

--- Multifunctional Actuator with Secure, 3-Fold, Flush Mounted > Outputs setting > Fan-... > F: Auto.

KNX Secure

General

Outputs setting

Auto.operation on object value

State of Auto.operation after startup

Automatically enable auto.operation

Enable auto.operation after [10..60000]

☐ 0=Auto/1=Cancel
 ☒ 1=Auto/0=Cancel

☒

☒

Fan-...

F: Auto.

F: Status

UI setting

Threshold value OFF<->speed 1 [1..100]

30

Threshold value speed 1<->speed 2 [1..100]

60

Threshold value speed 2<->speed 3 [1..100]

80

Hysteresis threshold value in +/-[0..50]

10

Minimum time in fan speed [0..65535]

10

Number of control value

☒ 1
 ☐ 2

Monitoring control value

☒

Monitoring period of control value [10..65535]

Reply mode of Obj."Control value fault"

☒ Respond after read only
 ☐ Respond after change

Control value after fault occurs [0..100]

4.8.2.1

Fan: Auto.

k

0 / 1

1 / 0

0=Auto/1=Cancel

Fan Automatic ON/OFF

0

1

1=Auto/0=Cancel

Fan Automatic ON/OFF

1

0

k

.

k

k

k

k

k

10.. 000

k

10.. 000

--

1 1 100 %

1

1、 100%

1

k

k

k

1 --

2 1 100 %

2

2 k

1、 100

2 --

1 100 %

3

3 k

1、 100

- 1

1 - 2 2 - k

- 1

1 - 2

1 - 2

2 -

k

+/- 0 0%

k

0, 0

0

10

50

60

+

40

-

40~60

k

40

()60

k

开风速 x

阈值加滞后值

阈值

阈值减滞后值

关风速 x

控制值

1

2

1

OFF <-> 1 10%

1 <-> 2 20%

2 <-> 3 30%

15%

OFF

OFF 25% 10%+15% 2 25% 20% 30%

1

3

3 14% <30%-15% 1 14% 10% 20%

2 k

2

OFF <-> 1 10%

1 <-> 2 40%

2 <-> 3 70%

5%

OFF

OFF 15% 10%+5% k

41% 2 41% 40% 70%

1

39% 1 39% 10% 40% k

3

3

64%

<70%-5%

k

39%

1

39%

10%

40%

2

k

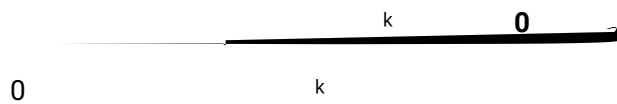
3

0

k



k



k

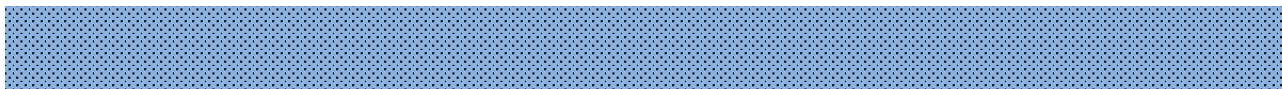
k



k

0

k



. .1.1

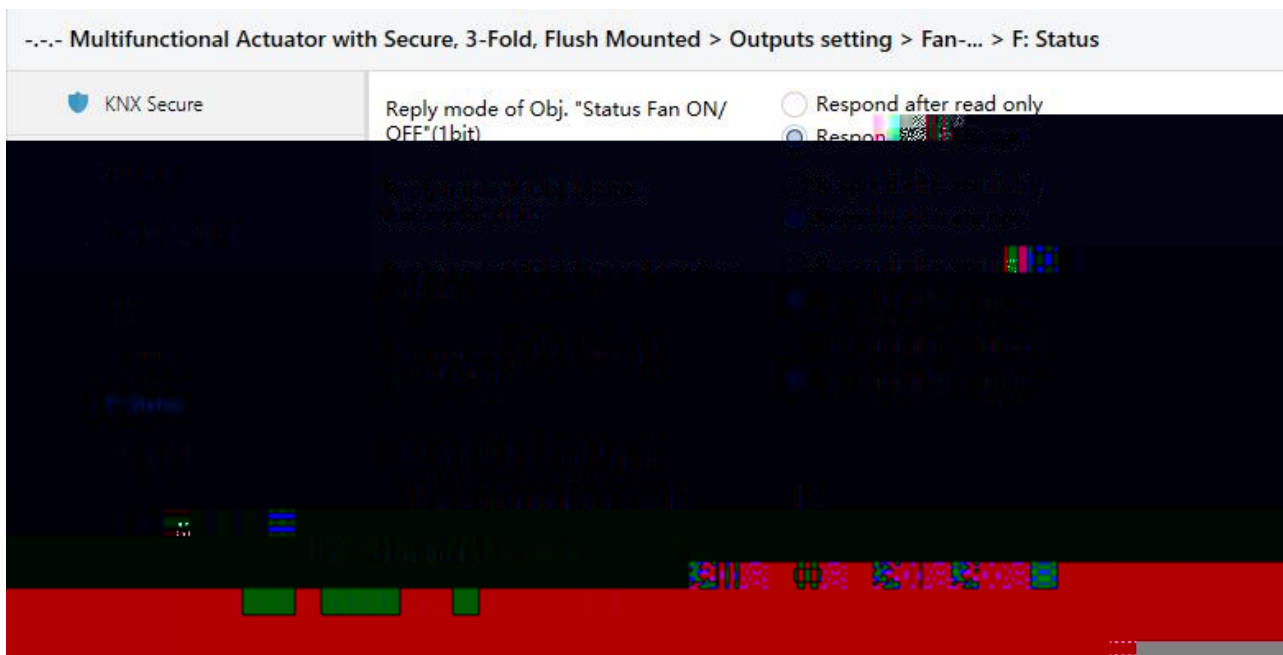
k

. 2.2

Fan: Status

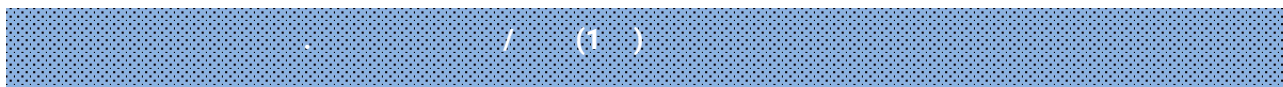
4.8.2.2

k



4.8.2.2

Fan: Status



k

Respond after read only

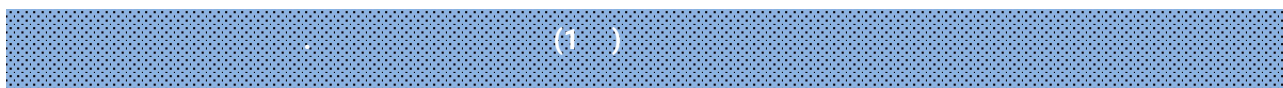
Status Fan ON/OFF

Respond after change

Status

Fan ON/OFF

k



k

Status Automatic

1

0

k

Respond after read only

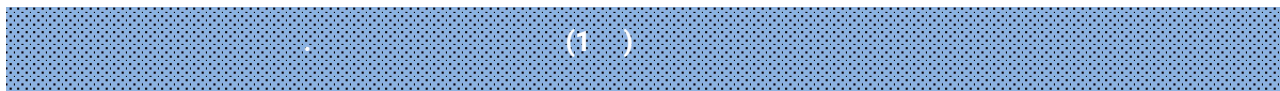
Status Automatic

Respond after change

Status

Automatic

k



(1)

k

1bit

Status Fan speed 1

!

Status Fan speed 2

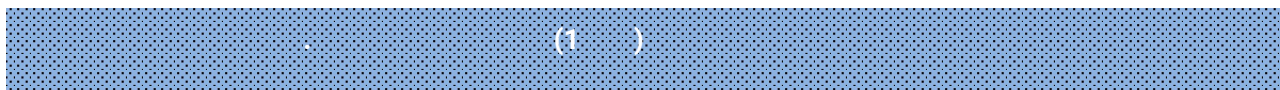
Status Fan speed 3

k

Respond after read only

Respond after change

k



(1)

Status Fan speed

1byte

k

Respond after read only

Respond after change

k

• •

1/2L

k

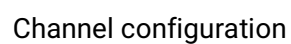
1..100

0 k

4.9

LED

k



k

0 k

k

/

□

k

0

0

100

1 0

.10.

! ! ! ! ! !

k

k

.10.1

“Switching”

4.10.1

k

--- Multifunctional Actuator with Secure, 3-Fold, Flush Mounted > UI setting > Input 1-...

 KNX Secure	Description (max 30char.)	
 General	Function of channel	Switch
 Outputs setting	Distinction between short and long operation	☒ No ☐ Yes
 Fan-...	Reaction on press the contact	No reaction
F: Auto.	Reaction on release the contact	TOGGLE
F: Status	Send object value after bus recovery (valid if reaction is not toggle)	☒ No ☐ Yes
 Output 3-...	Number of objects	☒ 1 ☐ 2
 UI setting	Disable function	☐

4.10.1

“Input x- Switch”



/ k “Yes”

k

...2 *0.1

/

k

□ □ □

/ /

k

" "

/

k

1/ 0

0/ 1

k

.10.2

“Dimming ”

4.10.2

k

Multifunctional Actuator with Secure, 3-Fold, Flush Mounted > UI setting > Input 1-...

KNX Secure	Description (max 30char.)	
General	Function of channel	Dimming
Outputs setting	Long operation after [3..25]	5 *0.1s
Fan-...	Connected contact type	☒ Normally open ☐ Normally closed
F: Auto.	Reaction on short operation	TOGGLE
F: Status	Reaction on long operation	Brighter/Darker
Output 3-...	Dimming mode	☐ Start-Stop dimming ☒ Step dimming
UI setting	Step size	12.5
	Interval of tele. cyclic send [0..25] (0=send once)	0 *0.1s
Input 1-...	Disable function	☐

4.10.2

“Input x- Dimming”

...2 *0.1

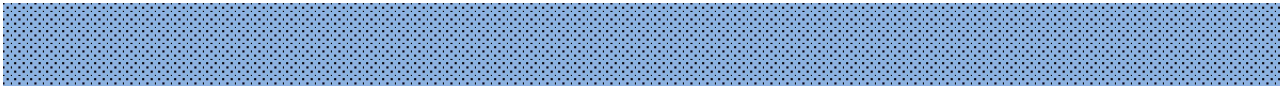
k

k

5..2

 k

Normally open k

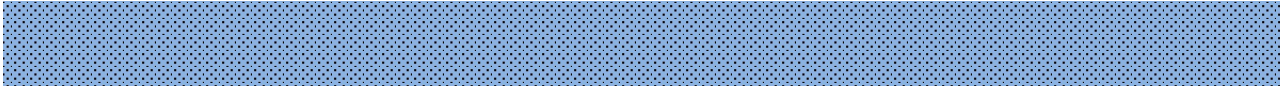


No action k

ON

OFF

TOGGLE k



/

No action k

Brighter k

Darker

Brighter/darker k

k k



k

-

“Start-stop dimming”

k

k

“Steps dimming”

k

” ”

“Dimming mode” “Steps dimming” ,

k

100%

0%

,

1. %

” ”

. **0..2 *0.1 (0**

“Dimming mode” “Steps dimming” ,

k

0..2 , 0

“Value output”

4.10.3

k

--- Multifunctional Actuator with Secure, 3-Fold, Flush Mounted > UI setting > Input 1-...

KNX Secure

General

Outputs setting

Fan-...

F: Auto.

F: Status

Output 3-...

UI setting

Description (max 30char.)

Function of channel

Distinction between short and long operation

Long operation after [3..25]

Connected contact type

Reaction on short operation

Output value [0..1]

Reaction on long operation

Output value [0..3]

Value output

No

Yes

5 *0.1s

Normally open

Normally closed

1Bit value[0..1]

0

2Bit value[0..3]

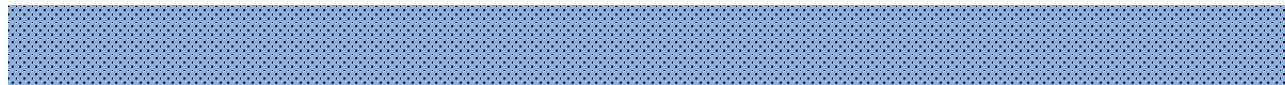
0

Input 1-...

Disable function

4.10.3

“Input x- Value output”



/ k “Yes”

k

” ” ...2 *0.1

/ k

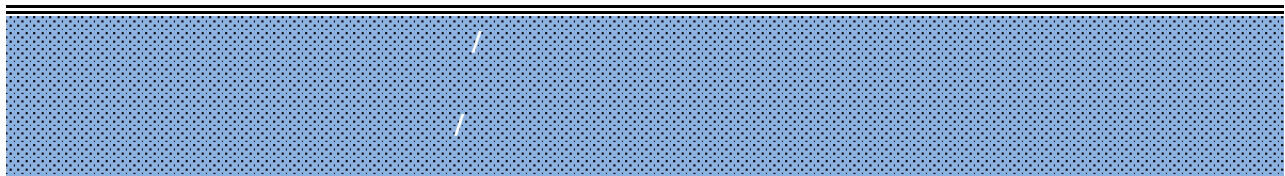
” ” k ...2

/

k

Normally open

k



/ / k

1 **0..1**

,

2 **0..**

”

,

k

k

.10.

“Scene control”

4.10.4 k



4.10.4 “Input x- Scene control”



/ k “Yes”

k

’ ’ ...2 *0.1

/

k

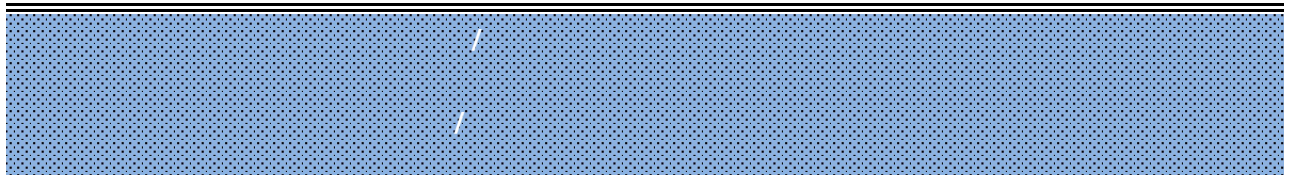
’ ’ k ...2

/

k

Normally open

k



/ / k

” ”

Scene NO.1~64 0~63 k



k

1

2

.10.

“Shutter control”

4.10.5 k

Multifunction

Actuator with Secure, 3-Fold, Flush Mounted > UI setting > Input 1-...

KNX Secure

General

Outputs setting

Fan-...

F: Auto.

F: Status

Output 3-...

UI setting

Description (max 30char.)

Function of channel

Long operation after [3..25]

Connected contact type

Reaction on short operation

Reaction on long operation

Interval of tele. cyclic send [0..25]
(0=send once)

Disable function

Blind

5

Normally open

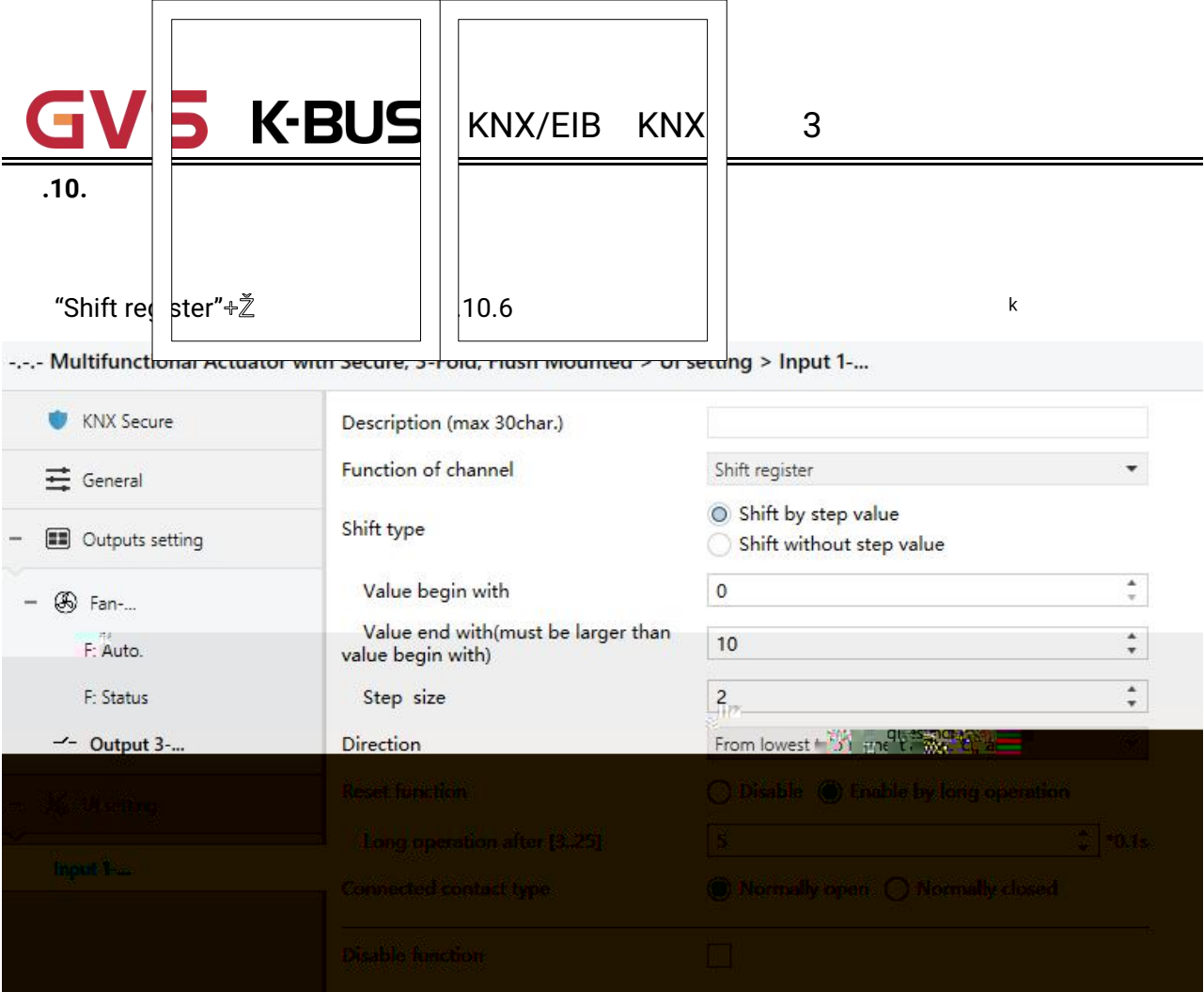
Normally closed

Up/Down

Stop(Adjust Up/Down)

0

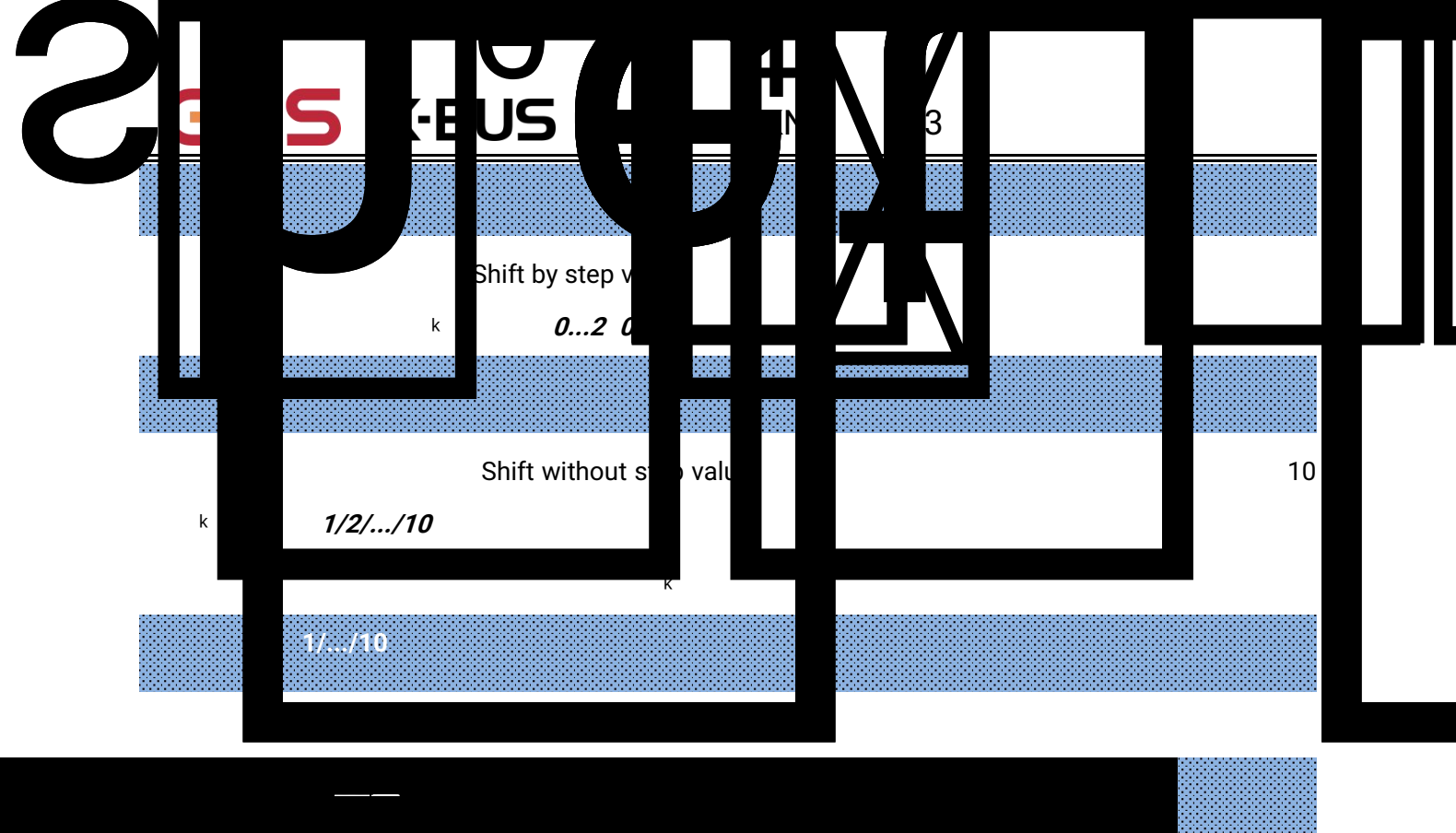
4.10.5 “Input x- Blind”



4.10.6 “Input x- Shift register”



☐ Shift by step ☐



k

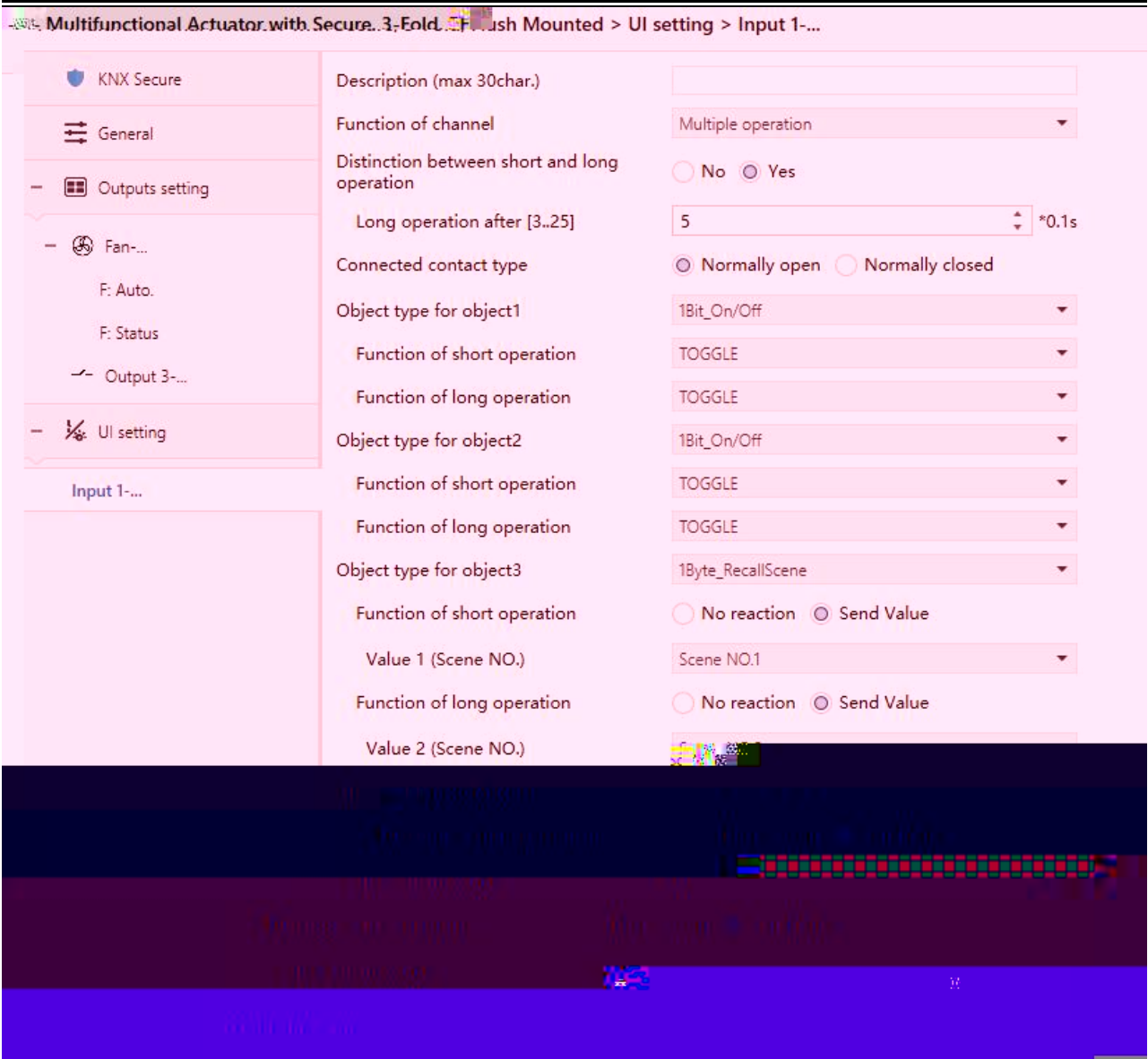
Enable by long operation

k

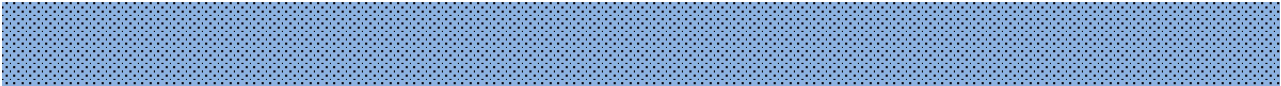
--- Multifunctional Actuator with Secure, 3-Fold, Flush Mounted > UI setting > Input 1-...

KNX Secure General Outputs setting Fan-... F: Auto. F: Status Output 3-... UI 	Description (max 30char.)	
	Function of channel	Multiple operation
	Distinction between short and long operation	☒ No ☐ Yes
	Object type for object1	1Bit_On/Off
	Function of press the contact	TOGGLE
	Object type for object2	1Bit_On/Off
	Function of press the contact	TOGGLE
	Object type for object3	1Byte_RecallScene
	Function of press the contact	No reaction ☐ Send Value
	Value 1 (Scene NO.)	Scene NO.1
Object type for object4	1Byte_Percentage	
Function of press the contact	No reaction ☐ Send Value	
Value 1 (Percentage)	30	
Disable function		

)



4.10.7(2) "Input x- Multiple operation" ()



/ k "Yes"
k

..2 *0.1

/

k

k ..2

k

k

/

k

•

" "

/

/

 $)^k$

??

1/2 ...

k

k

k

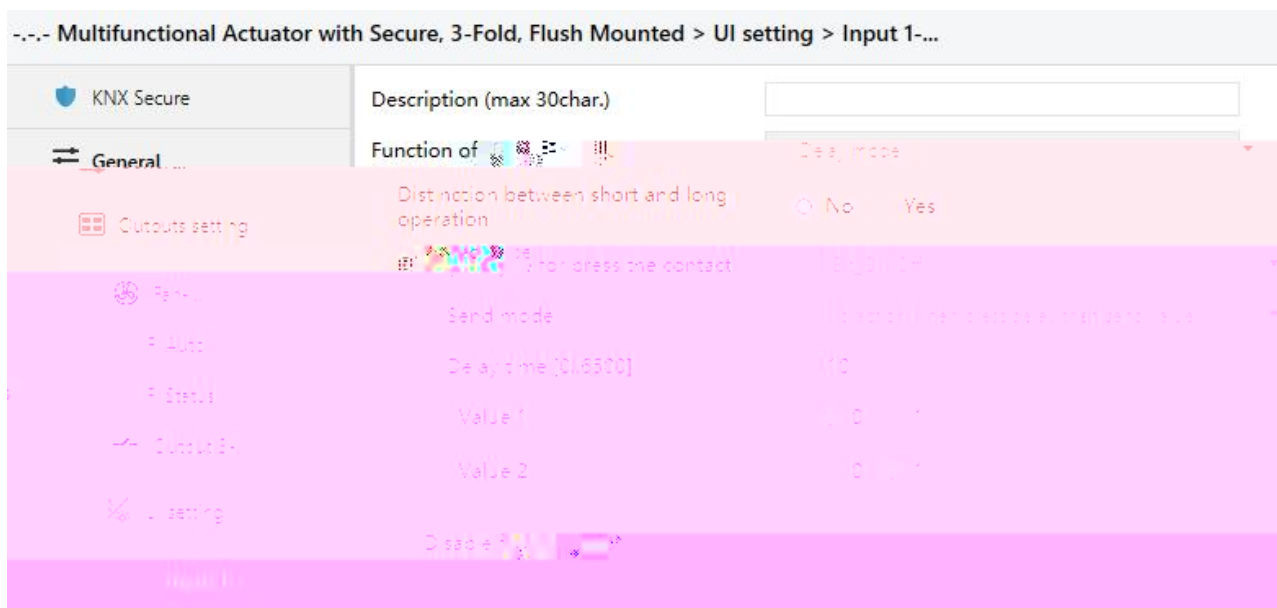
.10.

“Delay mode”

4.10.8

k

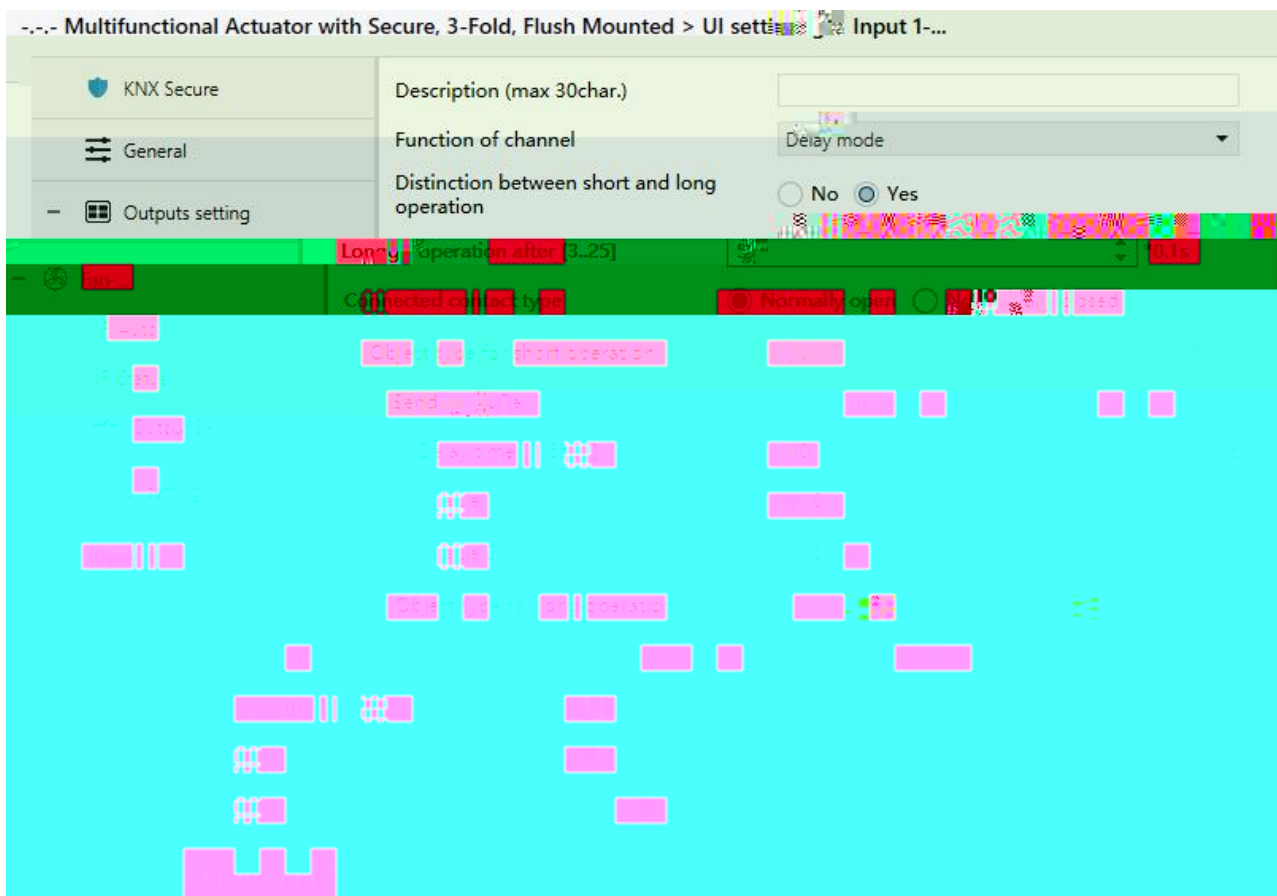
k



4.10.8(1)

“Input x- Delay mode”(

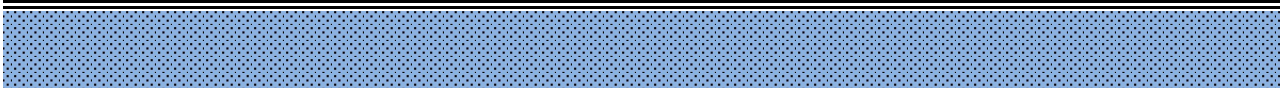
)



4.10.8(2)

“Input x- Delay mode”(

)



/ k "Yes"
k

” ”
...2 *0.1

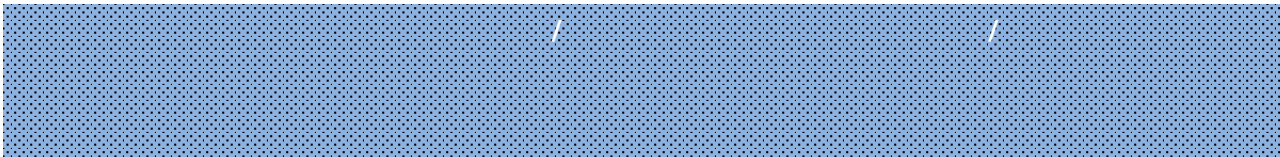
/ k

” ”
k ...2

/

k

Normally open k



/ k

1 /

1

” ”

k

, **1** **1**

, **2** **2**

1 , **2** **1** **2**

	2	,	1	2	1
’ ’	0.. 00				
	k	0.. 00			
’ ’	1/2、				
	1/2 k		k		

.11.

LED

k

LED

LED

k

--- Multifunctional Actuator with Secure, 3-Fold, Flush Mounted > UI setting > LED 5-...

KNX Secure

General

Outputs setting

Output 1-...

O1: Function

Description (max 30char.)

Status LED indication

External object datatype

When object value="0", LED is

When object value="1", LED is

Control by external object

☒ 1Bit ☐ 1Byte

☒ OFF ☐ ON

☐ OFF ☒ ON

- 1Bit

--- Multifunctional Actuator with Secure, 3-Fold, Flush Mounted > UI setting > LED 5-...

KNX Secure

General

Outputs setting

Output 1-...

O1: Function

Description (max 30char.)

Status LED indication

External object datatype

Threshold value is

If object value<threshold value, LED is

If object value=threshold value, LED is

If object value>threshold value, LED is

Control by external object

☐ 1Bit ☒ 1Byte

50

☒ OFF ☐ ON

☐ OFF ☒ ON

☐ OFF ☐ ON

- 1Byte

--- Multifunctional Actuator with Secure, 3-Fold, Flush Mounted > UI setting > LED 5-...

KNX Secure

General

Outputs setting

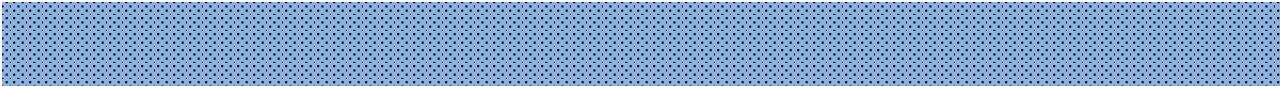
Description (max 30char.)

Status LED indication

Always on

Always on

4.11 "LED X"



LED

None

Control by external object

LED

Always k



LED

Control by external object

LED

k

1

1

0/1 ,

LED

Control by external object

1Bit

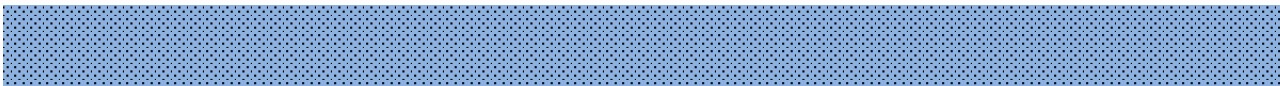
LED

LED

1

0

k



LED

Control by external object

1Byte

LED

k

1...2

,

LED

Control by external object

1Byte

LED

k

,

LED

Control by external object

1Byte

LED

k

,

LED	Control by external object	1Byte
LED	k	

k

k

k

.1.

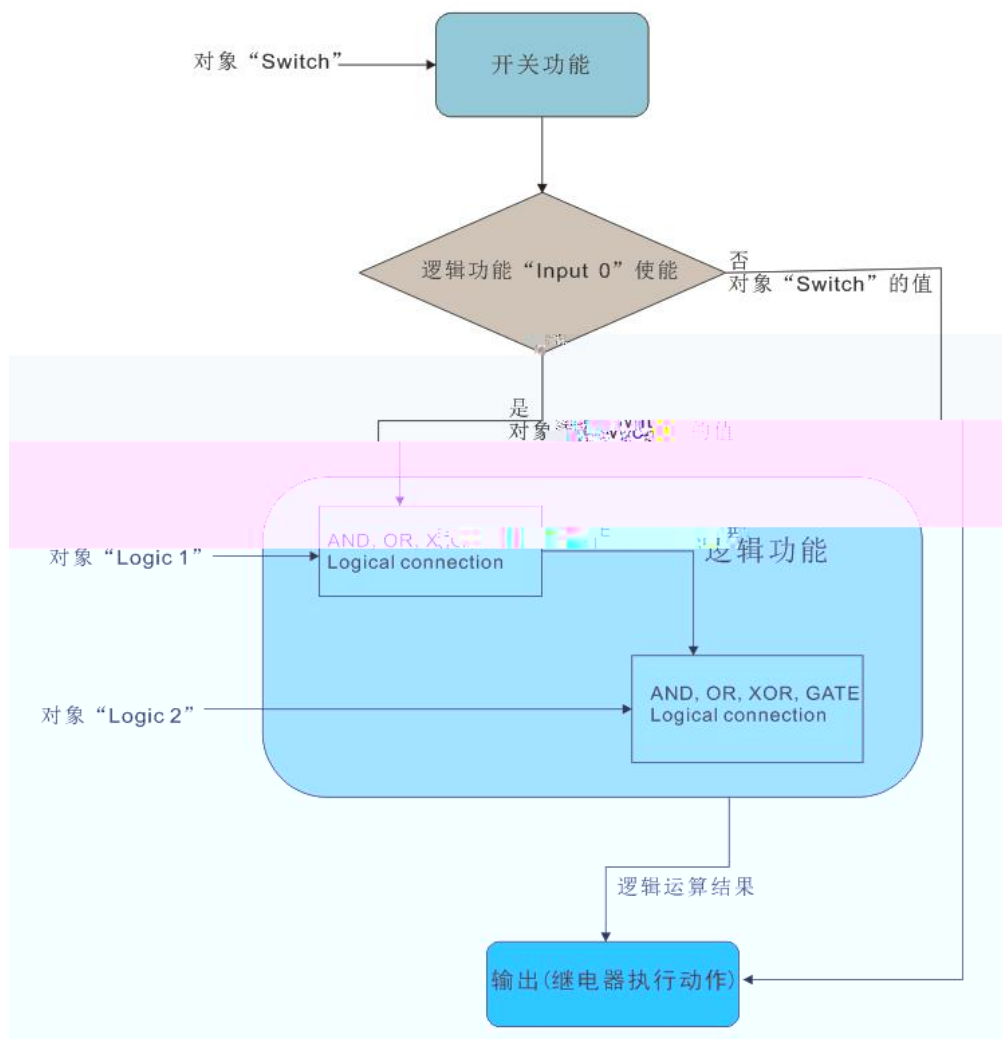
.1.1 --

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
1	General	In operation			1 bit	C	-	-	T	-	switch	Low
2	Output 1 Switch	Switch			1 bit	C	-	W	-	-	switch	Low
3	Output 1 Switch	Switch status			1 bit	C	R	-	T	-	switch	Low
4	Output 1 Switch	Enable time function			1 bit	C	-	W	-	-	enable	Low
5	Output 1 Switch	Delay function			1 bit	C	-	W	-	-	switch	Low
6	Output 1 Switch	Operation hours counter			4 bytes	C	R	W	T	U	time lag (s)	Low
7	Output 1 Switch	Scene			1 byte	C	-	W	-	-	scene control	Low
8	Output 1 Switch	Forced output			2 bit	C	-	W	-	-	enable	Low
5	Output 1 Switch	Flashing function			1 bit	C	-	W	-	-	switch	Low
5	Output 1 Switch	Staircase function			1 bit	C	-	W	-	-	switch	Low
6	Output 1 Switch	Operation hours counter			2 bytes	C	R	W	T	U	time (h)	Low
8	Output 1 Switch	Forced output			1 bit	C	-	W	-	-	enable	Low

5.1 --Switch actuator

					DPT
1			1	,	1.001
"1"					k
2			1	,	1.001
k "Input 0" "Switch"					

k



1, 1.001

4.3"Output X Switch" "Object value of switch status "

k

"Respond after read only"

"Respond after change"

k

1, 1.00

k "1"

"0"

k

k

1, 1.001

“Type of time funct

k					
1bit	"1"				"0"
k					
2bit	"3"		"2"		"1"
"0"	k				
		1	1	,	1.002
"The input 1 of logic"		"Enable"		Input1	k
10		2	1	,	1.002
"The input 2 of logic"		"Enable"		Input2	k

5.1

--Switch actuator

()

1bit(on-off control or PWM)

1byte(Continuous)

5.2 --Heating actuator(without controller)

125

"Reply the st

.2.

Number *	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
1	General	In operation			1 bit	C	-	-	T	-	switch	Low
2	Output Curtain	Move UP/DOWN			1 bit	C	-	W	-	-	up/down	Low
3	Output Curtain	Slat adj/stop			1 bit	C	-	W	-	-	step	Low
4	Output Curtain	Reference movement			1 bit	C	-	W	-	-	up/down	Low
5	Output Curtain	Move to position 0..100%			1 byte	C	-	W	-	-	percentage (0..100%)	Low
6	Output Curtain	Slat position 0..100%			1 byte	C	-	W	-	-	percentage (0..100%)	Low
7	Output Curtain	Scene			1 byte	C	-	W	-	-	scene control	Low
8	Output Curtain	Position status 0..100%			1 byte	C	R	-	T	-	percentage (0..100%)	Low
9	Output Curtain	Set status 0..100%			1 byte	C	R	-	T	-	percentage (0..100%)	Low
10	Output Curtain	Sun blind position			1 bit	C	-	W	-	-	slat/tilt	Low
11	Output Curtain	Enable auto control			1 bit	C	-	W	-	-	enable	Low
12	Output Curtain	Sun blind position 0..100%			1 byte	C	-	W	-	-	percentage (0..100%)	Low
13	Output Curtain	Sun blind position 0..100%			1 byte	C	-	W	-	-	percentage (0..100%)	Low
14	Output Curtain	Safety operation 1			1 bit	C	-	W	-	-	alarm	Low
15	Output Curtain	Safety operation 2			1 bit	C	-	W	-	-	alarm	Low
16	Output Curtain	Status of operation			1 byte	C	R	-	T	-		Low

5.3

DPT

2

/

1

,

1.00 %

		0 100%																									
/k"Venetian Blind" "Slat" position 0...100%" "0%" -- -- "100%"--																											
		0 100%	1	,	.001																						
"Venetian Blind" k "0%" -- -- "100%"--																											
			1	,	1 .001																						
8bitk8bit 8bit () FXNNNNNN F: '0' '1' X 0 NNNNNN 0...63 k 1~64"Scene"0~63 k 1"Scene"0 k <table><tr><td></td><td></td></tr><tr><td>0</td><td>1</td></tr><tr><td>1</td><td>2</td></tr><tr><td>2</td><td>3</td></tr><tr><td>...</td><td>...</td></tr><tr><td>63</td><td>64</td></tr><tr><td>128</td><td>1</td></tr><tr><td>129</td><td>2</td></tr><tr><td>130</td><td>3</td></tr><tr><td>...</td><td>...</td></tr><tr><td>191</td><td>64</td></tr></table> k								0	1	1	2	2	3	...	...	63	64	128	1	129	2	130	3	...	...	191	64
0	1																										
1	2																										
2	3																										
...	...																										
63	64																										
128	1																										
129	2																										
130	3																										
...	...																										
191	64																										
		0..100%	1	, ,	.001																						

/ / k "0%" --- --- "100%" ---					
		0..100%	1	,	.001
"Venetian Blind" k k "0%" --- --- "100%" ---					
10			1	,	1.001
"0" "1" k					
11		.	1	,	1.00
"0" --- "1" --- "0" "1", k					
12		/ 0 100%	1	,	.001
"Venetian Blind" / k "Sun:slat adj. 0...100%" k "0%" --- --- "100%" ---					
1		. 0 100%	1	,	.001
"Venetian Blind" k "0%" --- --- "100%" ---					

1 /1		1/2	1	,	1.00
0 1 "1" "1" k k 2 1 k					
1			1	, ,	
/ k 8bit "0"--- "1"--- "2"--- "3"---1 "4"---2 k					

[illegible]

_One level

_Multi-level

2			1 1	,	1.001 .001
, 1bit k "0"--- "1"--- 1byte k 1..100% 0 k					
0		1	1	,	1.001
k 1 1~3 ON k					

1~3		OFF		k	
"0"---					
"1"---		1			
1		2	1	,	1.001
30					
2			1	,	1.001
30					
		/	1	, ,	1.001
k k "0"--- "1"---					
			1	, ,	.010
k k Status value for Fan speed 1/2/3 [1..100]% "0" k					
		1	1	, ,	1.001
k 1 k "0"--- 1 "1"--- 1					
		2	1	, ,	1.001
35					
			1	, ,	1.001
35					
			1	,	1.00
k k k k					

“0 Auto/1=Cancel”

“0”——

“1”——

“1 Auto/0=Cancel

5L

“0”——

“1”——

29 Output Fan--Fan speed

30-32 Output Fan-- Fan speed x (x=1,2,3,)

1 1.00

k

“0”——

“1”——

0

1

1.00

k

“Limitation on forced operation”

k

“0 Force/1=Cancel”

“0”——

“1”——

“1 Force/0=Cancel”

“1”——

“0”——

1

1

.001

1

2

2

1

.001

1

Control value

2

Control value1/2

k

□ □ □

2		k			
"0"---Control value 1 (		1)			
"1"---Control value 2 (		2)			
			1	, ,	1.00
k		k			
"0"---					
"1"---					

5.4

..

4k

Number ^	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
1	General	In operation			1 bit	C	-	-	T	-	switch	Low
45	Output Valve	Heat/Cool mode status			1 bit	C	R	-	T	-	cooling/heating	Low
46	Output Valve	Control value fault			1 bit	C	R	-	T	-	alarm	Low
47	Output Valve											

5.5

						DPT
		/	1	, ,	1.100	/
/ k "0"--- "1"---						
			1	, ,	1.00	
k "0"--- "1"---						
/ 2		, /	1	,	1.00	
/ k 0%						
/		, /	1 1	,	.001 1.001	
k 2 (48) k 1bit 1byte k						
/		, /	1 1	, ,	.001 1.001	

k					
0/		,	/	1	, 1.00
k					
"0"---					
"1"---					
1/		,	/	1	, , 1.00
k k					
"0"---					
"1"---					

5.5

• •

Number ^	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
1	General	In operation			1 bit	C	-	-	T	-	switch	Low
57	Input 1	Switch			1 bit	C	-	W	T	U	switch	Low

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

Number ^	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
1	General	In operation			1 bit	C	-	-	T	-	switch	Low
57	Input 1	Short, Switch			1 bit	C	-	W	T	U	switch	Low
58	Input 1	Long, Switch			1 bit	C	-	W	T	U	switch	Low
61	Input 1	Disable			1 bit	C	-	W	-	-	enable	Low

"Switch"

Number ^	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
1	General	In operation			1 bit	C	-	-	T	-	switch	Low
57	Input 1	Short, Switch			1 bit	C	-	W	T	U	switch	Low
58	Input 1	Long, Dimming			4 bit	C	-	W	T	-	dimming control	Low
61	Input 1	Disable			1 bit	C	-	W	-	-	enable	Low

"Dimming"

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

Number ^	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
1	General	In operation			1 bit	C	-	-	T	-	switch	Low
57	Input 1	Short, Switch			1 bit	C	-	W	T	U	switch	Low
58	Input 1	Long, Dimming			4 bit	C	-	W	T	-	dimming control	Low
61	Input 1	Disable			1 bit	C	-	W	-	-	enable	Low

"Value output"

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

"Scene control"

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

"Blind"

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

"Shift register"

Number ^	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
1	General	In operation			1 bit	C	-	-	T	-	switch	Low
57	Input 1	Object1-On/Off			1 bit	C	-	W	T	-	switch	Low
58	Input 1	Object2-Up/Down			1 bit	C	-	W	T	-	up/down	Low
59	Input 1	Object3-SceneControl			1 byte	C	-	-	T	-	scene control	Low
60	Input 1	Object4-Percentage			1 byte	C	-	-	T	-	percentage (0..100%)	Low
61	Input 1	Disable			1 bit	C	-	W	-	-	enable	Low

"Multiple operation"

Number ^	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
1	General	In operation			1 bit	C	-	-	T	-	switch	Low
57	Input 1	Short, Delay mode			1 bit	C	-	-	T	-	switch	Low
58	Input 1	Long, Delay mode			1 bit	C	-	-	T	-	switch	Low
61	Input 1	Disable			1 bit	C	-	W	-	-	enable	Low

"Delay mode"

5.6

					DPT
			1	, , ,	1.001
	,		1	, , ,	1.001

	,		1	, , ,	1.001
	,		1	, , ,	1.001
	,		1	, , ,	1.001
k 0´ 1´					
	,			, ,	.00
k 1~7 709~15 9158k					
	,1 /2 / /1 /2		1	,	1.001
	,1 /2 / /1 /2		2		2.001
	,1 /2 / /1 /2		1	,	.00
	,1 /2 / /1 /2		2	,	.010
	,1 /2 / /1 /2			,	.001
k					
			1	,	1 .001
	,		1	,	1 .001
	,		1	,	1 .001
	,		1	,	1 .001
	,		1	,	1 .001

8bit		k		8bit		k	
8bit		()		FXNNNNNN			
F		'0'		'1'			
X		0					
NNNNNN		0...63		k			
0		1					
1		2					
2		3					
...		...					
63		64					
128		1					
129		2					
130		3					
...		...					
191		64					
1~64		"Scene"		0~63		k	
1		"Scene"		0		k	
/ ,		1		, ,		1.00 /	
/ k		0´ /		1´ /			
/ ,		1		, ,		1.00	
		k					
		1		,		.010	
		k					
/		- /		1		, , 1.001	

/	-	/	1	,	1.00	/
/	-		1	,	1 .001	
0/	-		1	,	.001	
	-		1	,	.010	
4 x=1,2,3,4						
4		k				
	,		1	,	1.001	
	,			,	.00	
	,		1	,	.010	
k						
1			1	,	1.00	
/ k						

...

序号	名称	对象功能	描述	群组地址	长度	C	R	W	T	U	数据类型	优先级
	LED 5-...	Status			1 bit	-	-	-	-	-	switch	低

5.7 LED

					DPT
101		- ...	1 1	, , ,	1.001 .010
LED	Control by external object	LED5~8	LED5		
	1bit/1byte	LED			k

5.7 LED