
RH % VOC PM2.5 I II III
25.5°C
AUTO


RH % VOC PM2.5 I II III
25.5°C
AUTO


RH % VOC PM2.5 I II III
25.5°C
AUTO


RH % VOC PM2.5 I II III
25.5°C
AUTO



KNX 8 KNX ,

!

k

KNX 8 HVAC AC ! ! k

k

KNX 8 ! ! ! ! ! ! RGB !

! LED

k ! ! !

k

KNX 8 KNX 86 k

.knxprod ETS ETS5.7 k

KNX 8

k

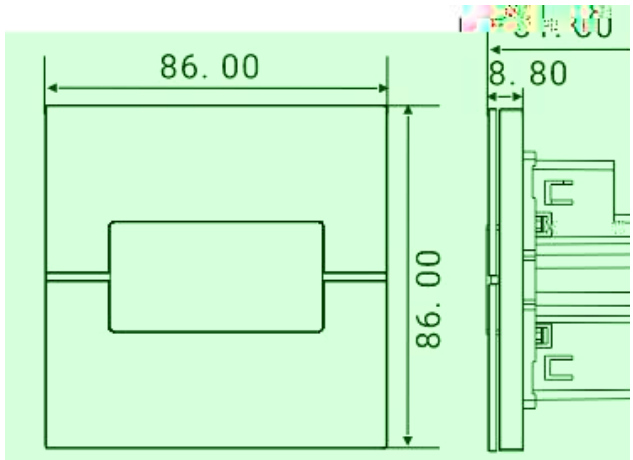
- ! LED
- HVAC AC ! !

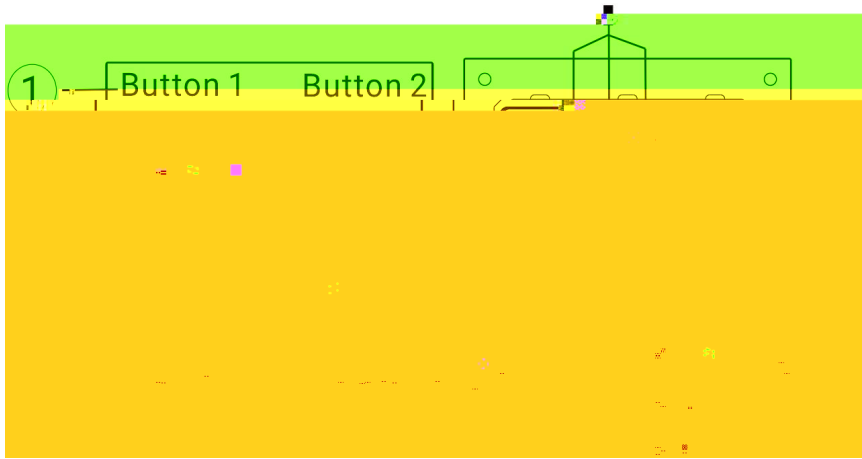
5

- /HVAC/AC/ ! ! ! ! /

21-30V DC KNX

<15.0mA/24V <12.0mA/30V





F / LED 1-8 F

ϟ PT100

ϟ KNX

! /LED k

/HVAC/AC/ ! ! ! ! /

k ! ! ! ! ! ! RGB !

!

/ ! ! k

! ! 1bit/1byte !

! ! ! !

k

/ PT100 k

k

HVAC ! / ! ! ! !

2 PI k

AC k ! ! ! k

k 5 k

PM2.5/CO2/VOC k 1bit 1byte

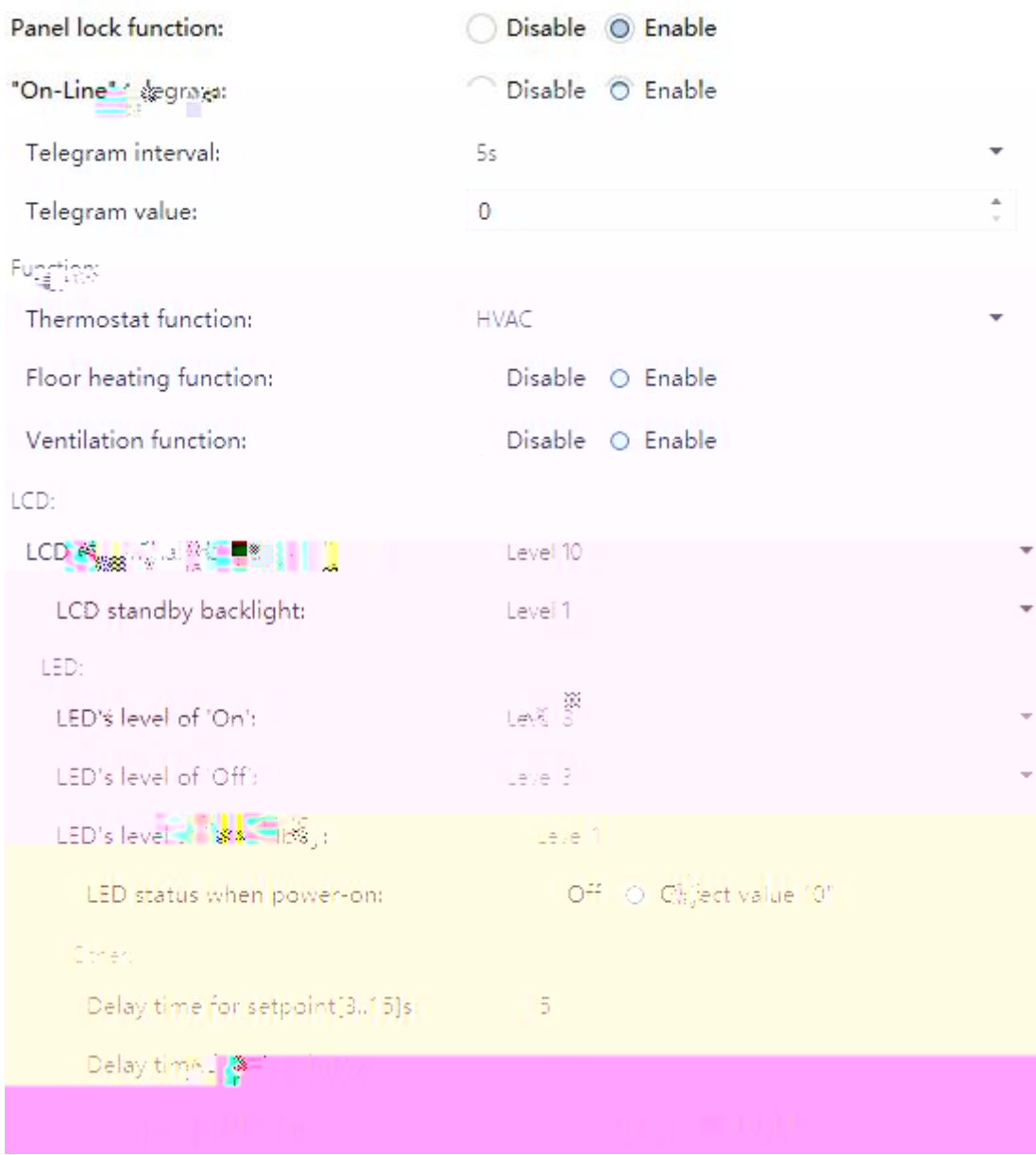
4 k 5 k

4 8

1bit/1byte/2byte k

4 8 1 k

! ! ! ! ! k


Panel lock function:
Disable
Enable
"On-Line" telegram:
Disable
Enable
Telegram interval:
5s
Telegram value:
0
Function:
Thermostat function:
HVAC
Floor heating function:
Disable
Enable
Ventilation function:
Disable
Enable
LCD:
Level 10
LCD standby backlight:
Level 1
LED:
LED's level of 'On':
LED's level of 'Off':
LED status when power-on:
Off
Object value "0"
Delay time for setpoint[3..15]s
5

5.1 “General”

k

Disable k

Enable

“HVAC” HVAC k 5.4 k

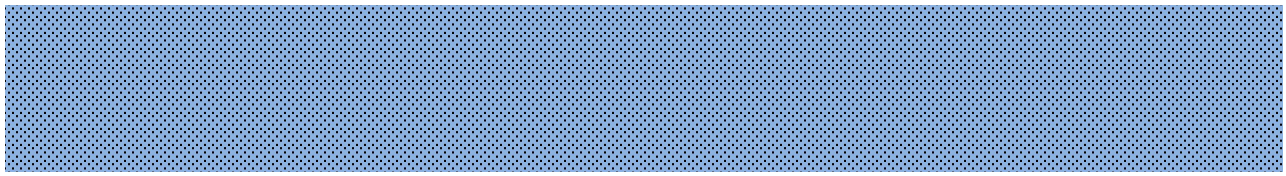
“AC” AC k 5.5 k

k 5.6 k

k 5.7 k

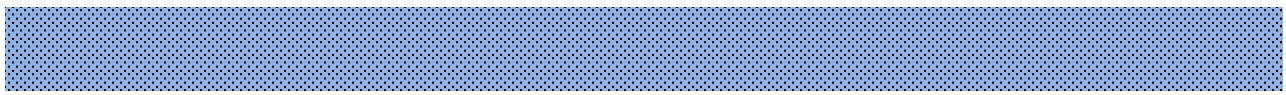
/ LCD k

Level1 Level10 k



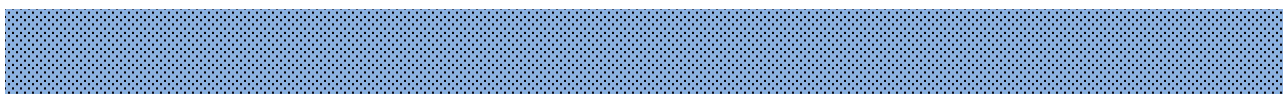
LED / k

Level1 Level10 k



LED k

Level1 Level10 k



LED k

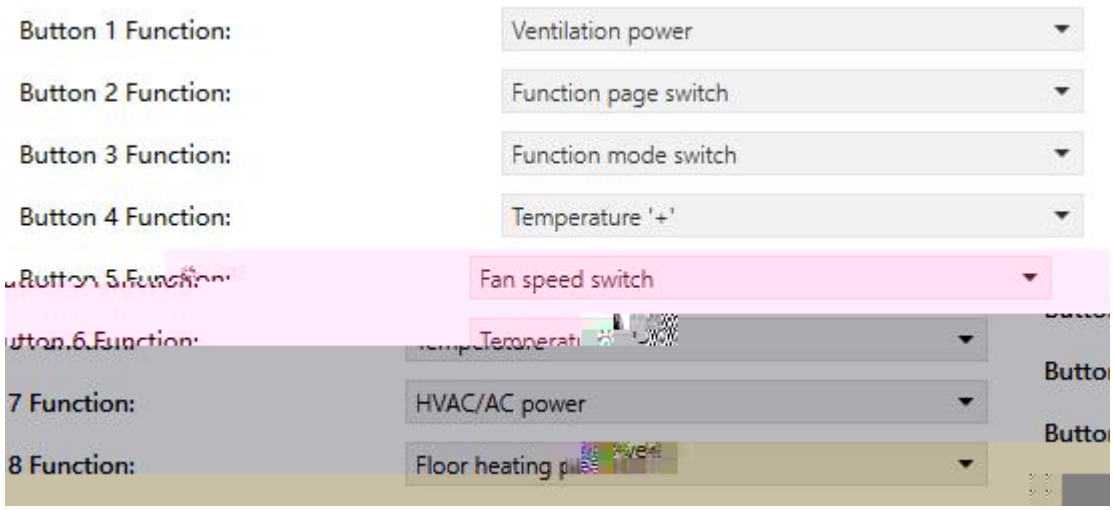
HVAC ! AC !

k

k

KNX k

k



5.2 “Push button”

1 k

2 k

! !

3 k

4 k

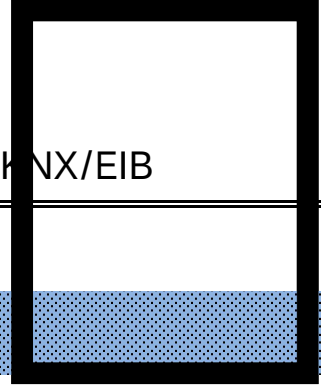
!

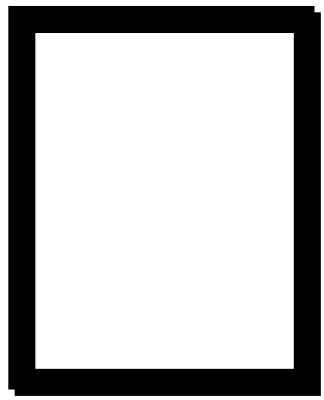
5 k

!

6 k

!







5.2.1 “Button x”

k

k

No reaction k

ON k

OFF k

TOGGLE

k “ Switch ”

“ 0 ” k

k

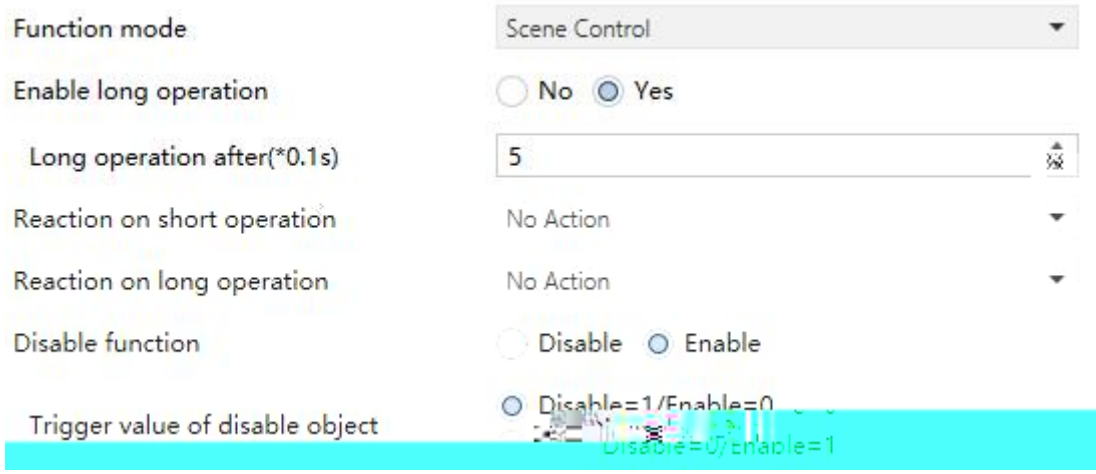
k / k

k



“Dimming”

“Step dimming” k k

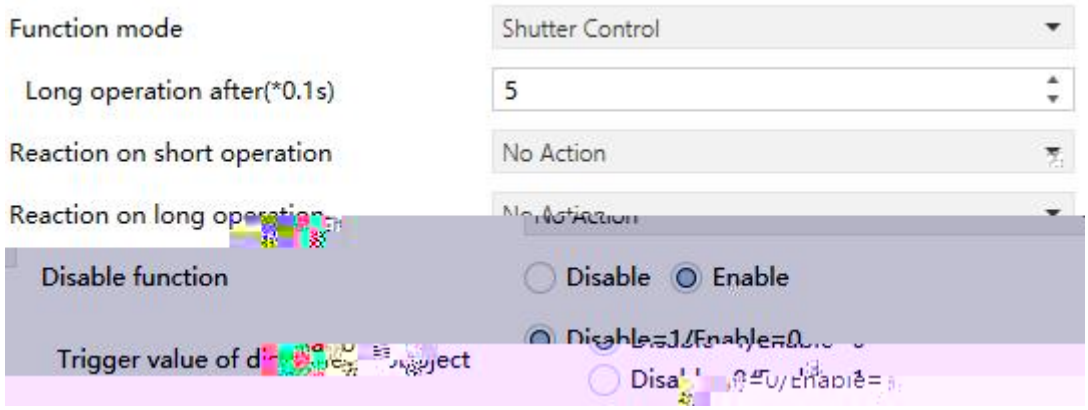


5.2.1.3 “Scene Control”

/ / k

“No reaction” k

0~63



5.2.1.4 “Shutter Control”

k

No action k

Up k

Down k

Up/Down / k

“ Up/Down, Blind ” “ 0 ” k

Stop (Adjust Up) k

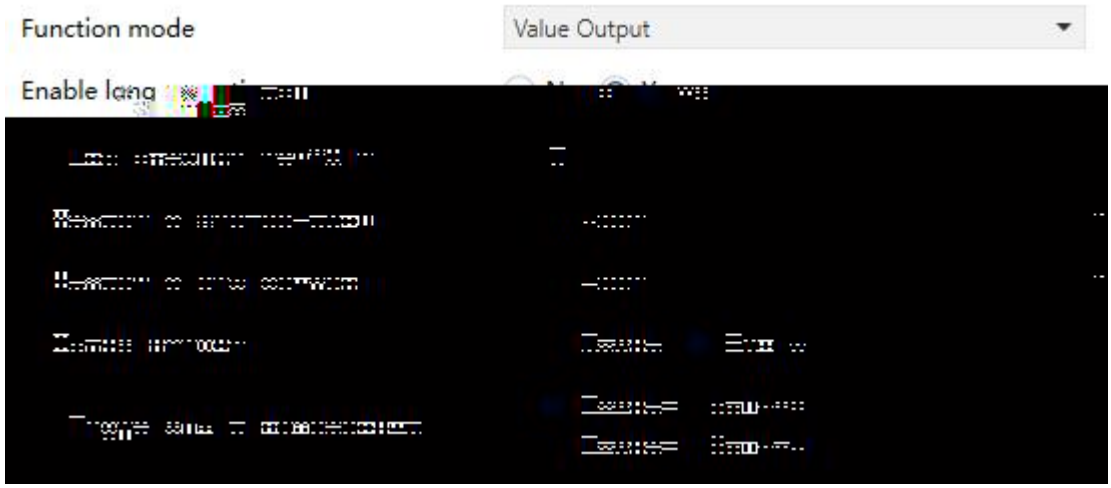
Stop (Adjust Down) k

Stop (Adjust Up/Down) / k

“ Stop/Adjust Blind ” “ 0 ” / k

“Reaction on long operation” “Stop...” k

k

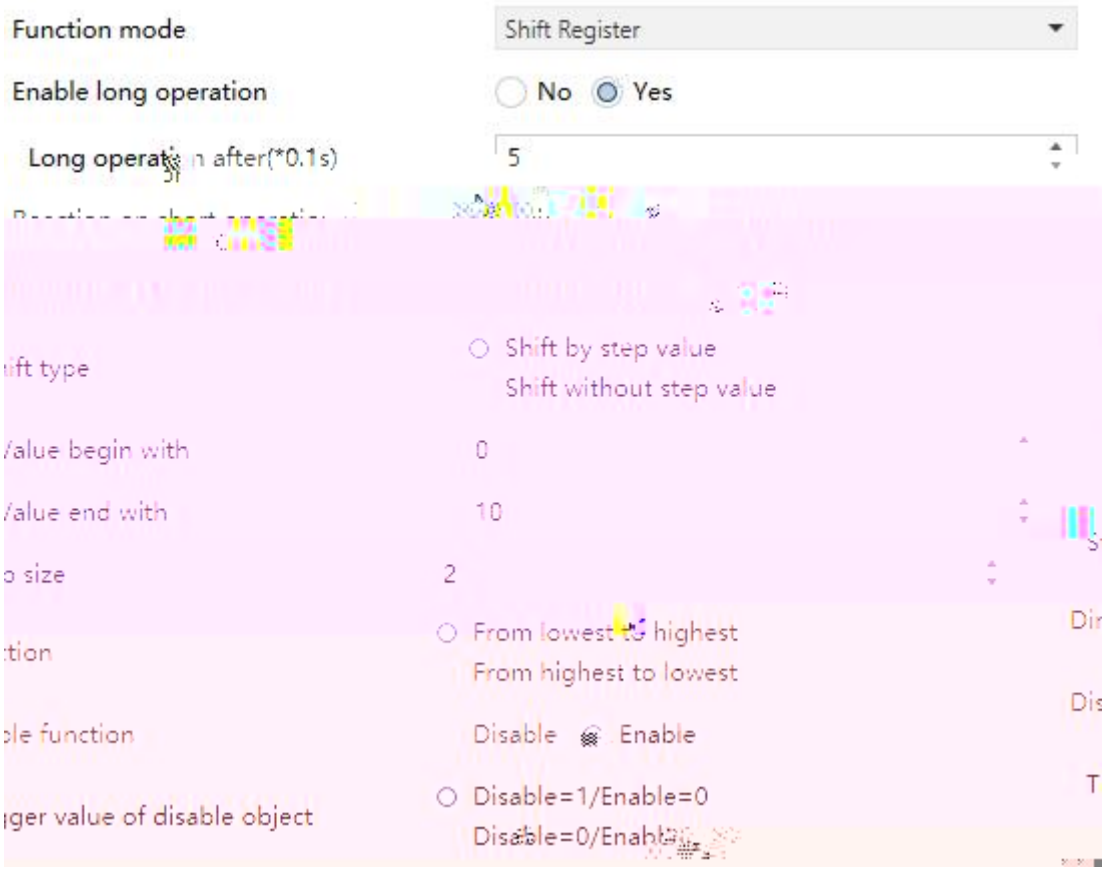


5.2.1.5 “Value Output”

/ / k

“No reaction” k / /

k k



5.2.1.6 “Shift Register”

/ k

k

k

Shift by step value

k

Shift without step value 10

k

k

k

k

k

k

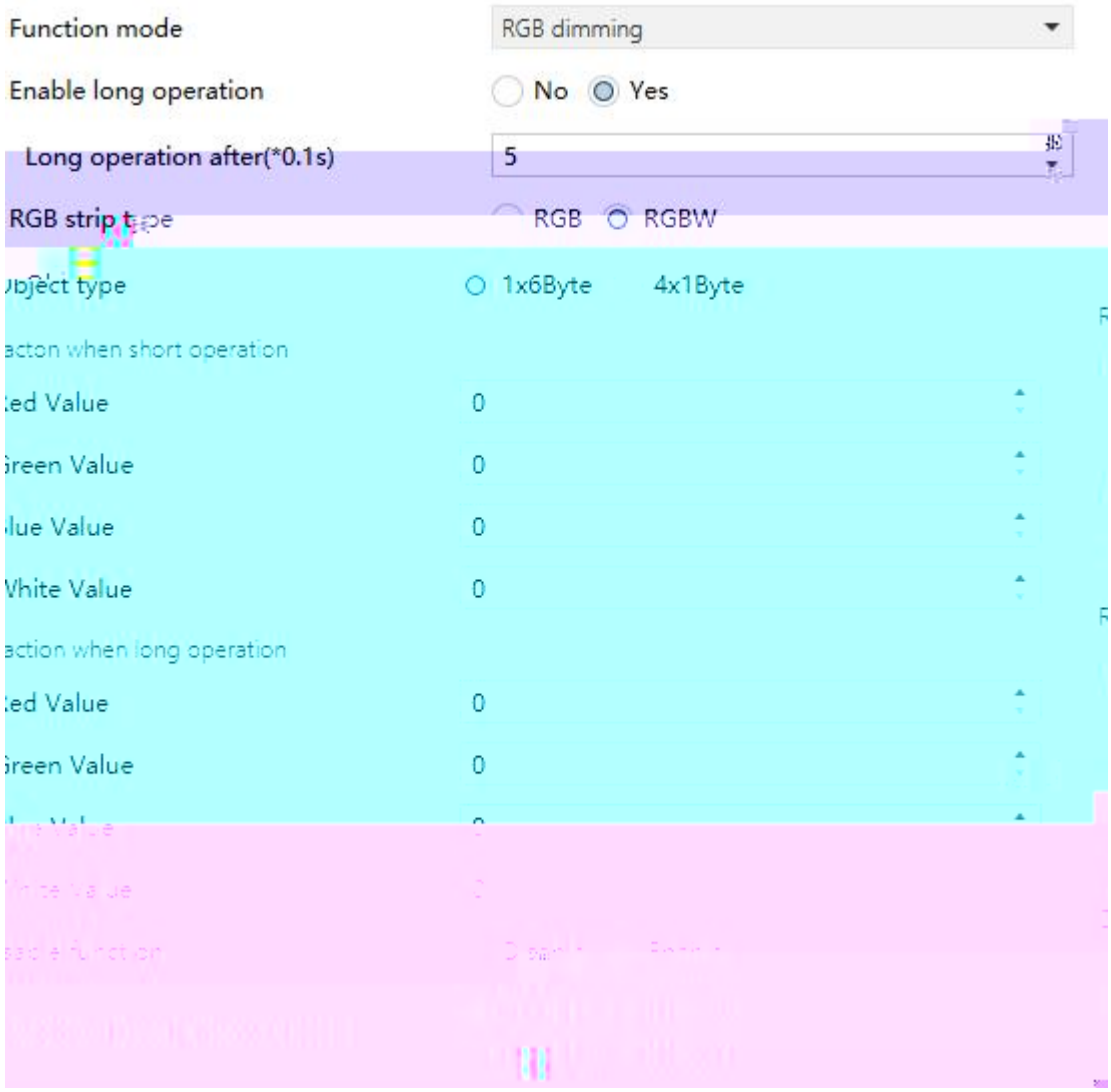
k 10 k

k

k

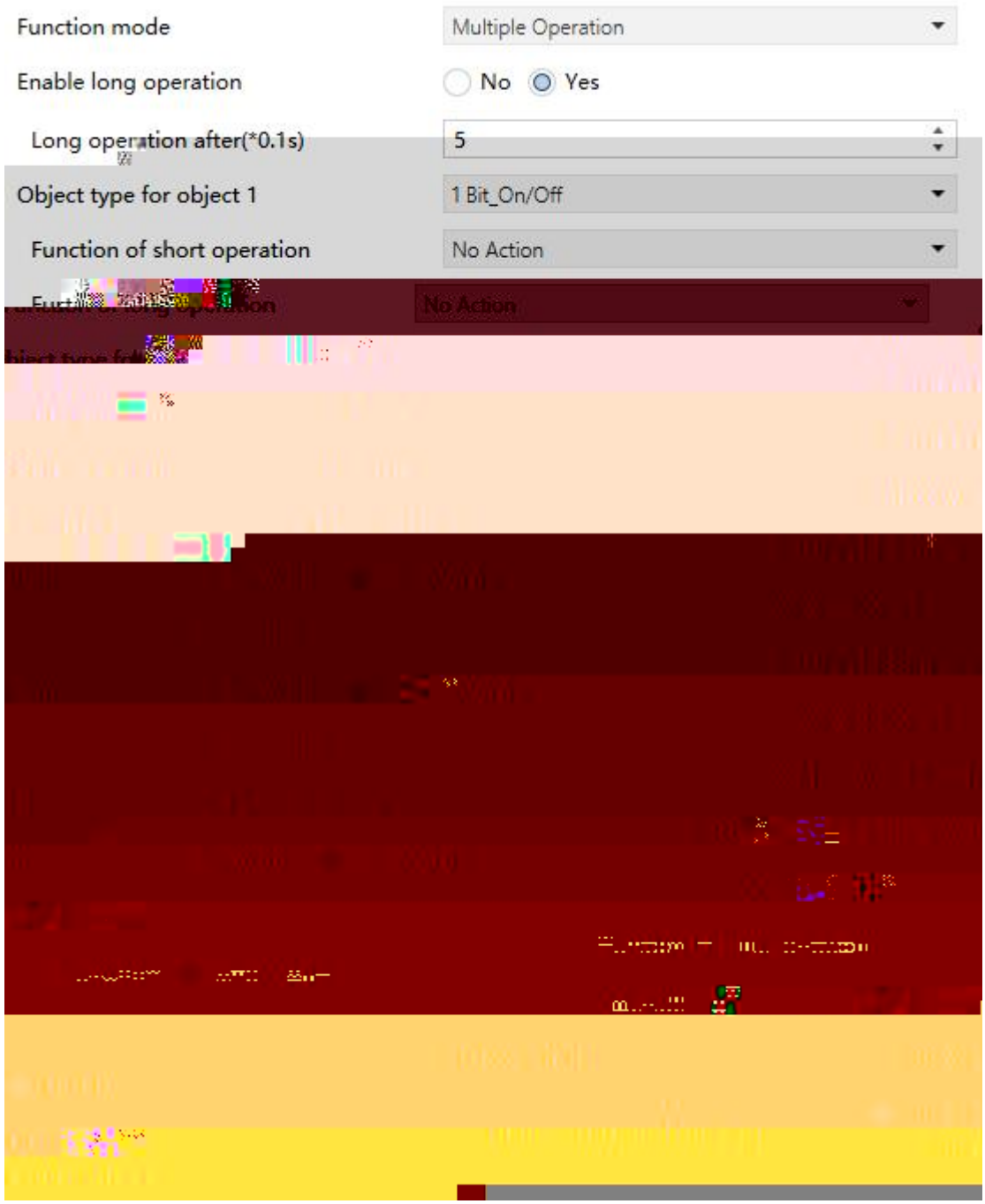
From lowest to highest k

From highest to lowest k



5.2.1.7 “RGB dimming”

RGB k



5.2.1.8 “Multiple Operation”

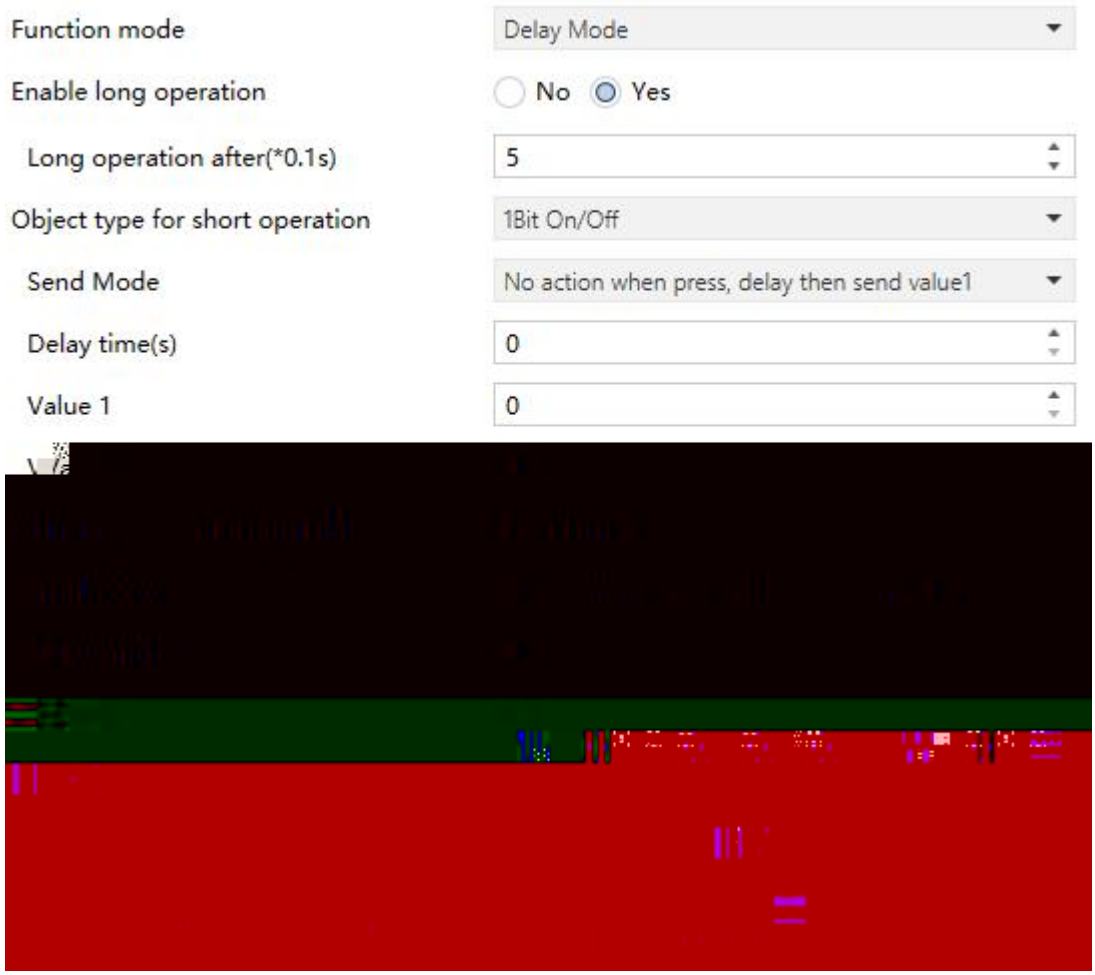
/ k

No reaction (Send Value

) k

“1byte_RecallScene”“1byte_StoreScene”“1byte_Percentage”“1byte_Unsigned value”

k k k



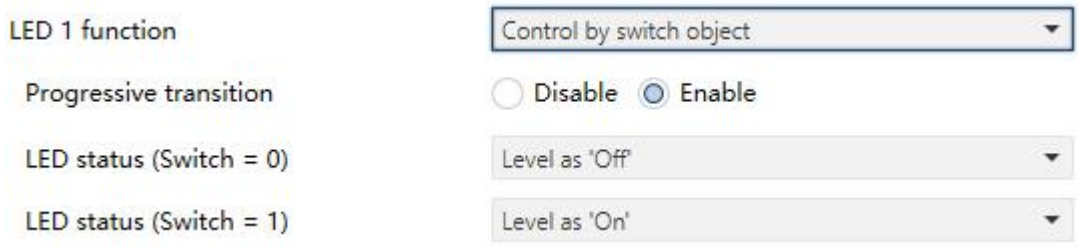
5.2.1.9 “Delay Mode”

/ k

k

k

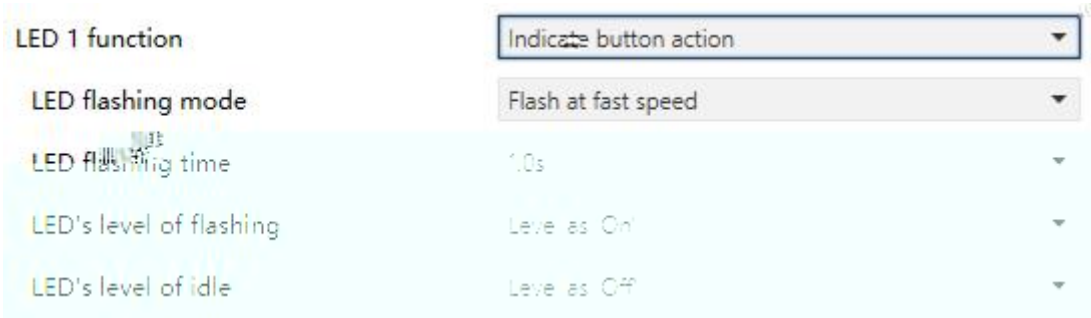
1/2 k k



Control by switch object



Control by external object



Indicate button action



Indicate power status

5.2.1.10 □ □□□□□□□□ □□ □ □

“Control by switch object” “Control by external object” “1Bit” k

1bit LED k

“Control by external object” “1Byte” k k

“Control by external object” “1Byte” k

LED k

“Indicate button action” k LED k

/P6T100 (* k

k

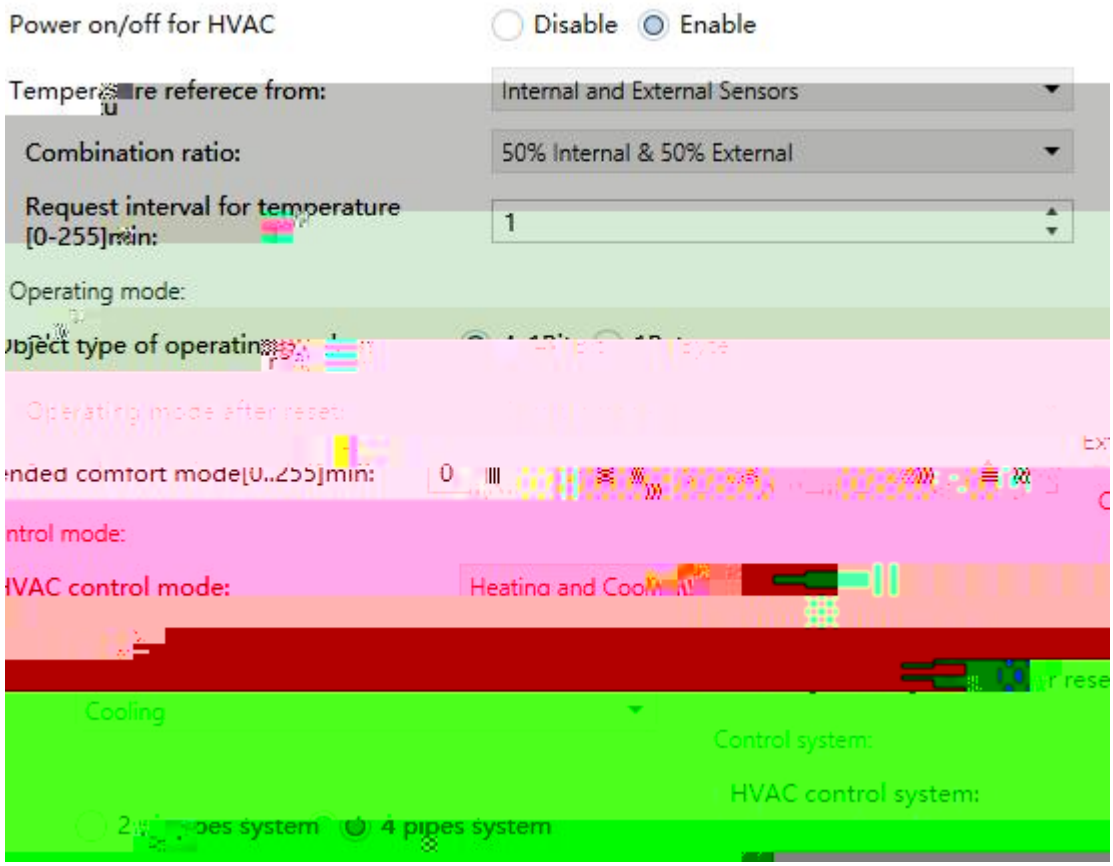


/PT100 k

No respond k

Respond after read

Respond after change i# k



5.4.1 “HVAC General”

HVAC k

External and Internal sensors
External and PT100 sensors

“Internal and PT100 sensors”

“External and PT100 sensors”

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

= ×40% + ×60% HVAC

k

k

k

k

k

HVAC k

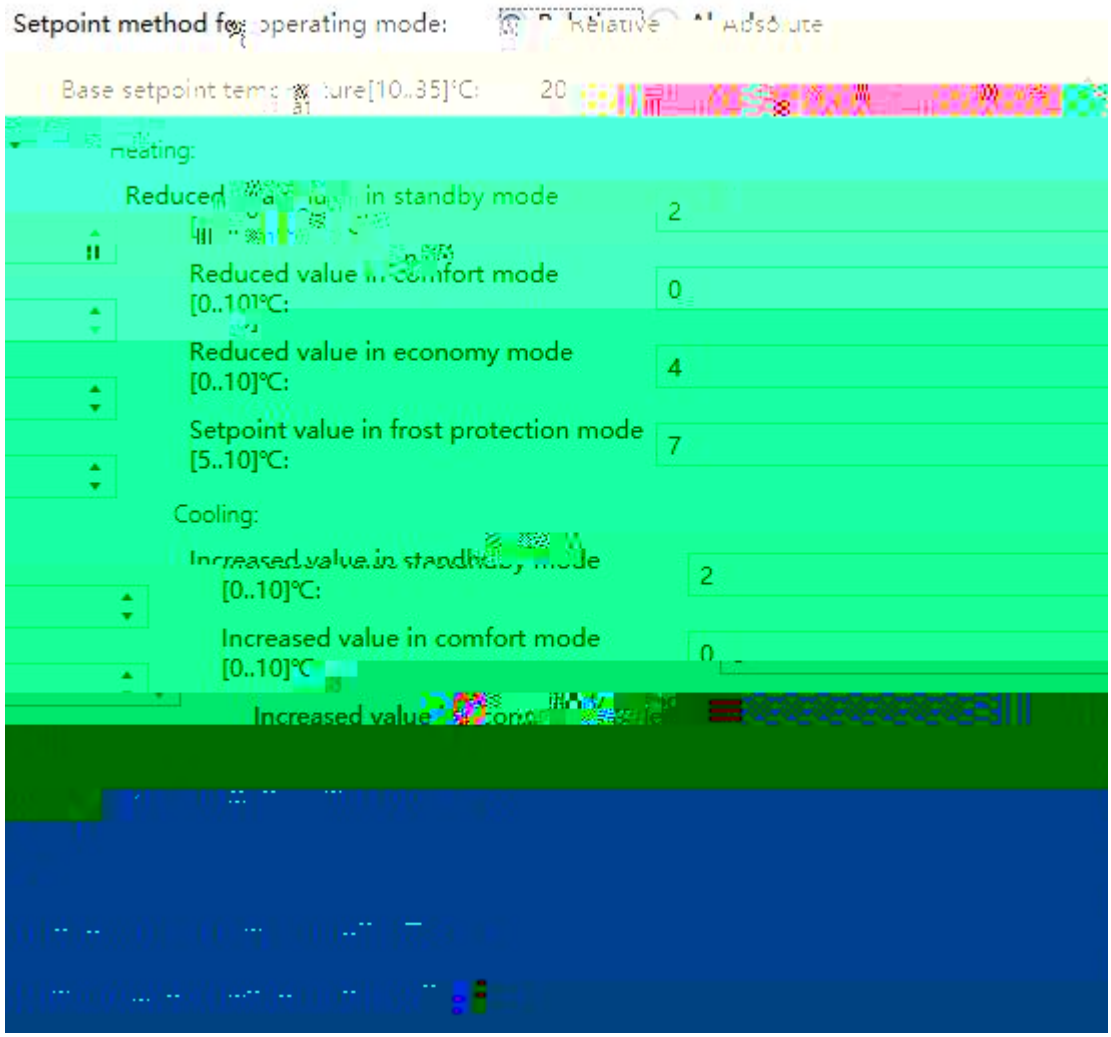
Heating and Cooling k k

/ k

Only via button k

Only via object k

Only via button or object k


Setpoint method fo operating mode:
Relative
Absolute
Base setpoint tem ure[10..35]°C:
20
Heating:
Reduced in standby mode
2
Reduced value in comfort mode
[0..10]°C:
0
Reduced value in economy mode
[0..10]°C:
4
Setpoint value in frost protection mode
[5..10]°C:
7
Cooling:
Increased value in standby mode
[0..10]°C:
2
Increased value in comfort mode
[0..10]°C
0

Relative



Absolute

5.4.2 “HVAC Setpoint”

k

Relative k

Absolute k

N

“Setpoint adjustment, in” k

N

N

N

N

N

N

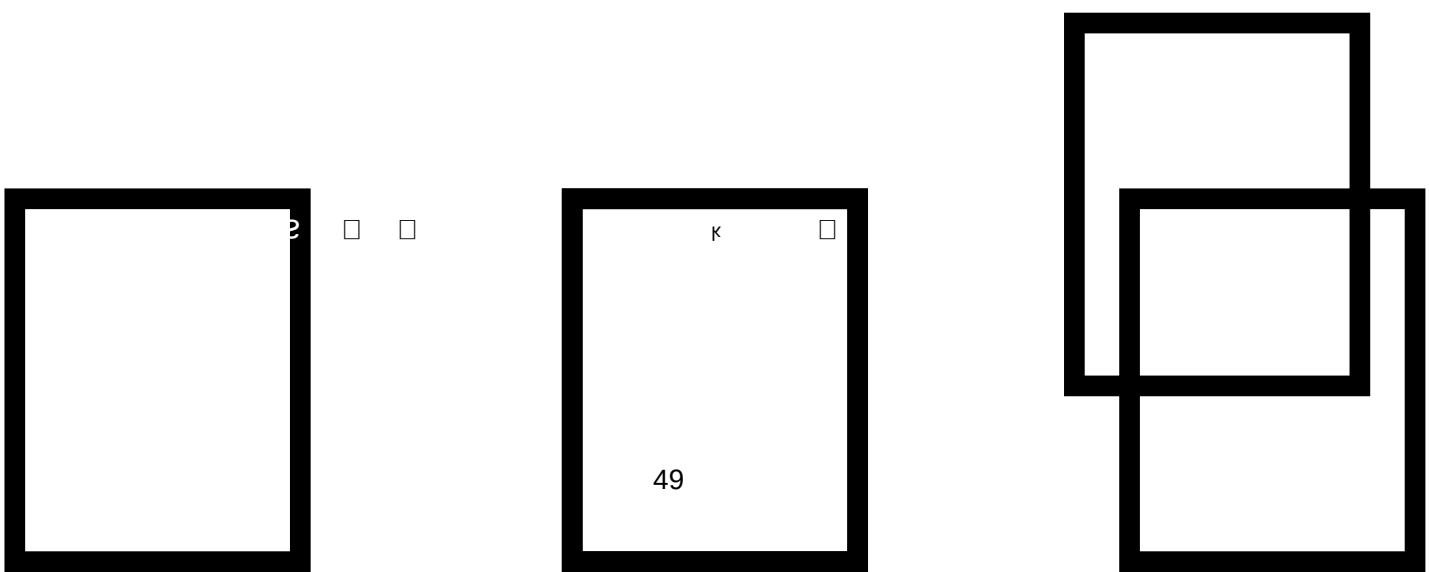
/ / k

Heating / / k

Cooling / / k

k

□□□□□□ □□□



!

k

k

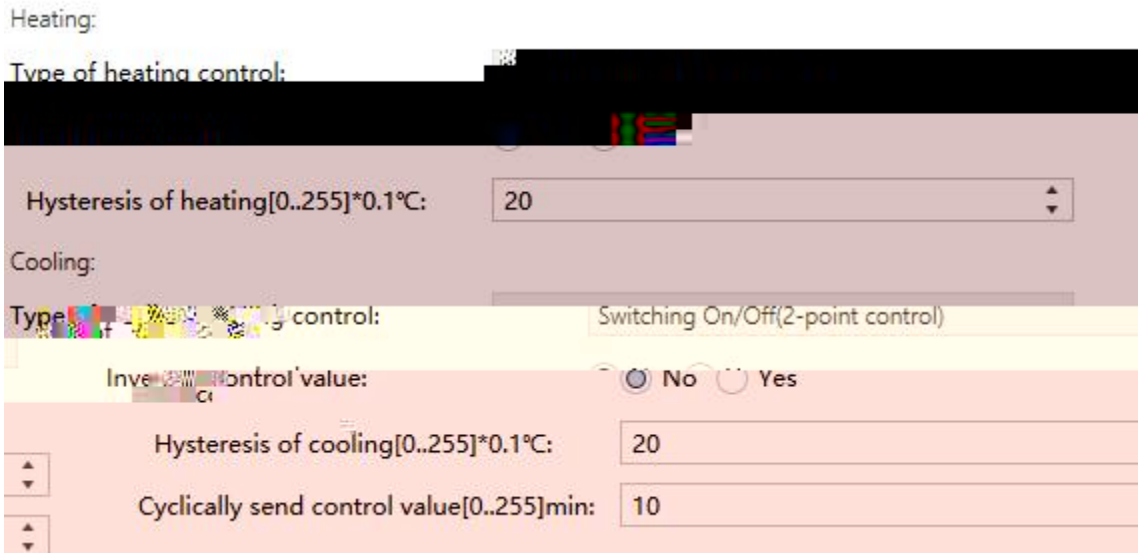
k

Note: The heating setpoint must be always less than the cooling setpoint.

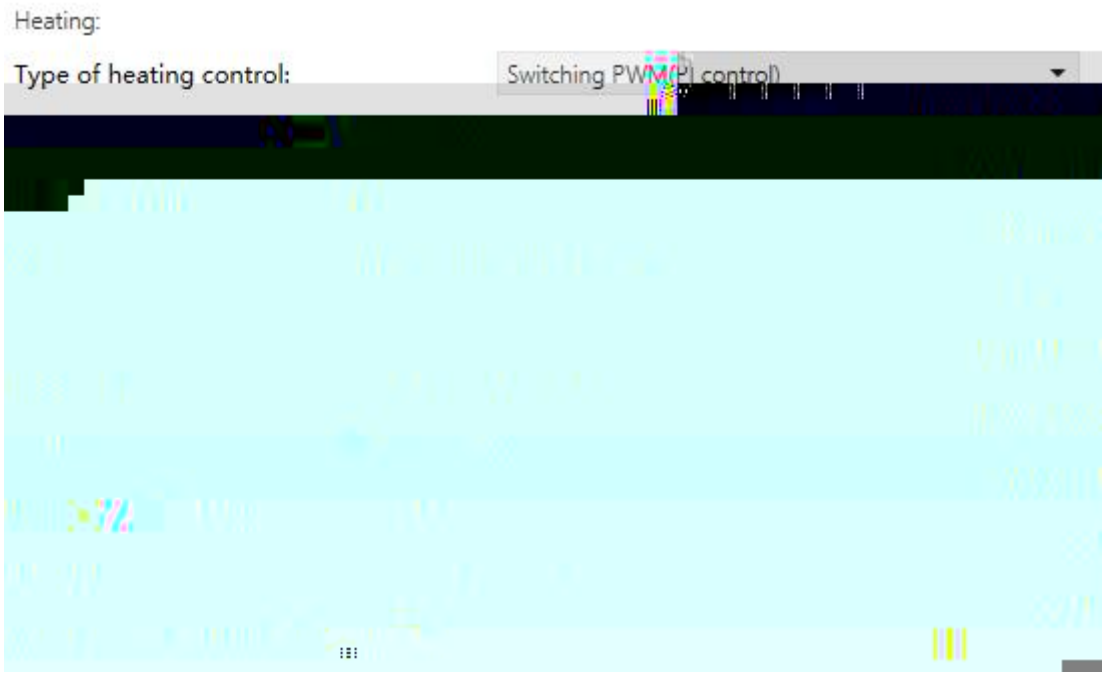
N

k

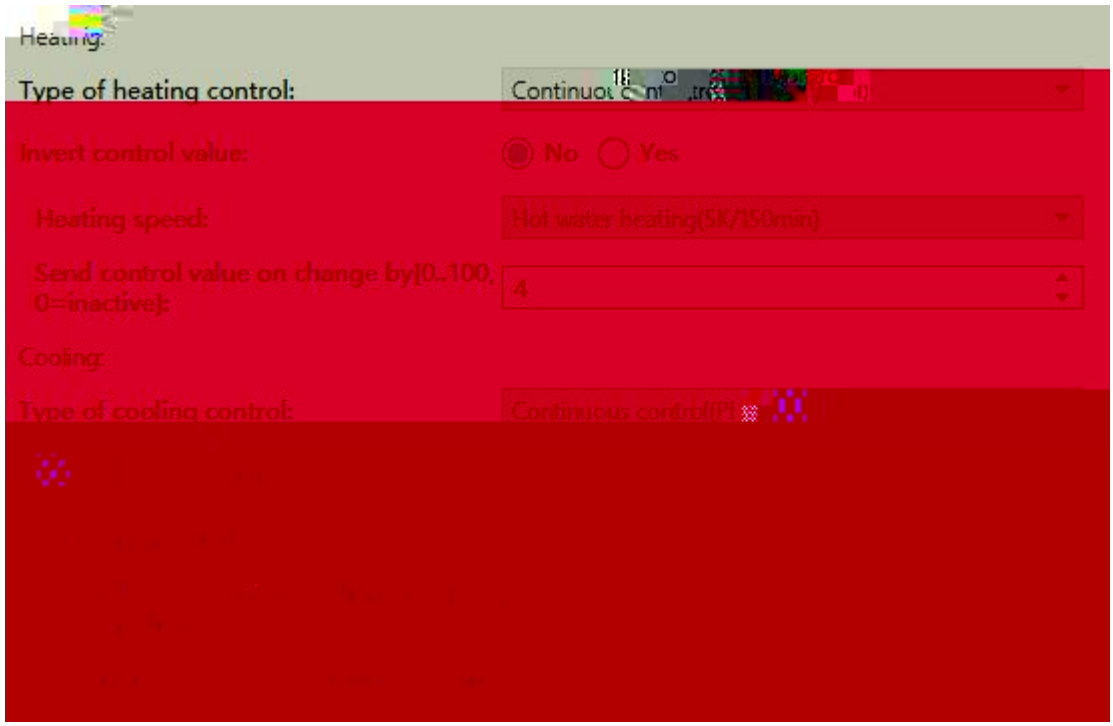
k



Switching On/Off(2-point control)



Switching PWM(PI control)



Continuous control(PI control)

5.4.3(1) “HVAC control”

k

Yes k

N

N

HVAC k

k

k

1 22 T 23 k

T 21 T 21~23 k

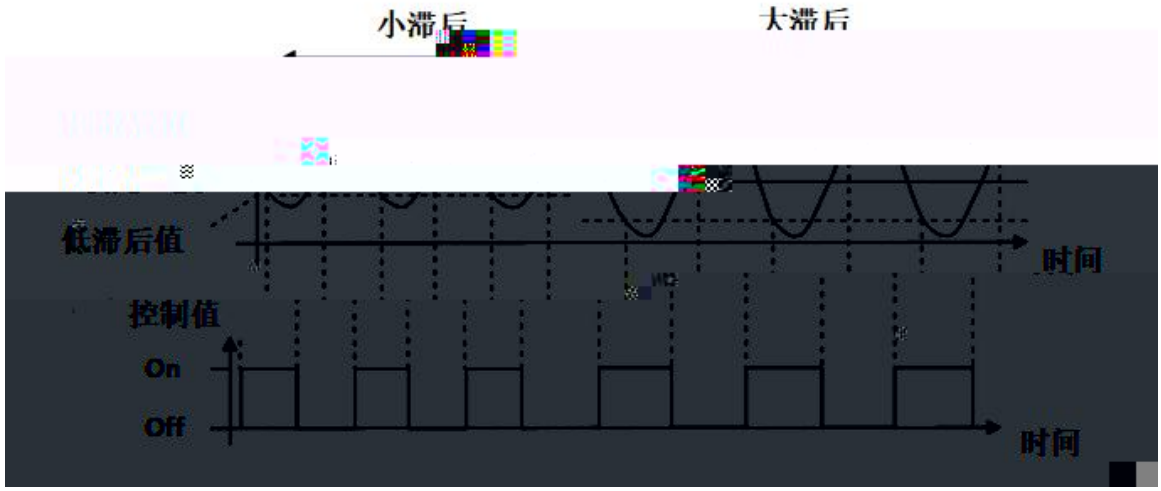
k

1 26 T 25

T 27 T 26~27 k

1.

2. k



5.4.3(2) ( )

“Switching PWM(PI control)”

10min, 80%

8min 2min /

k

“User defined” k PI PI k

“Continuous control (PI control)”

k

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

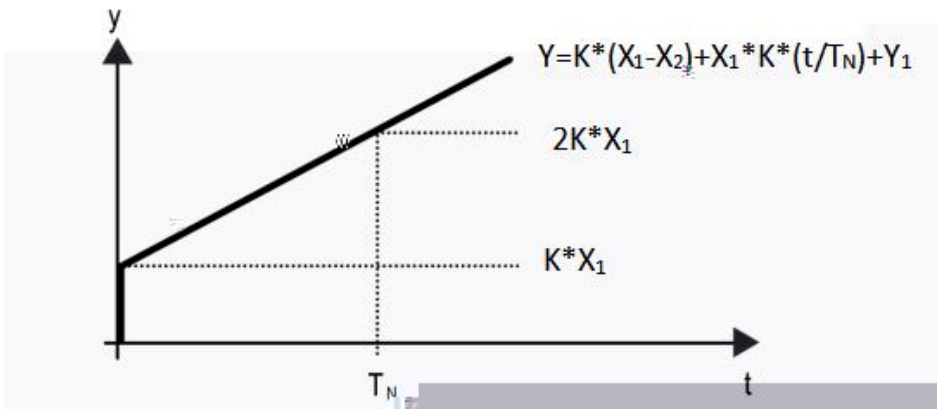
	5K	240min	PWM	15-20mIn
	4K	90min	PWM	10-15min
	4K	90min	Continuous	--

“Heating/Cooling speed” “User defined” P

I k PI

k

k 0 k



5.4.3(3) PI

Y

Y1

X1 =

X2 =

T_N

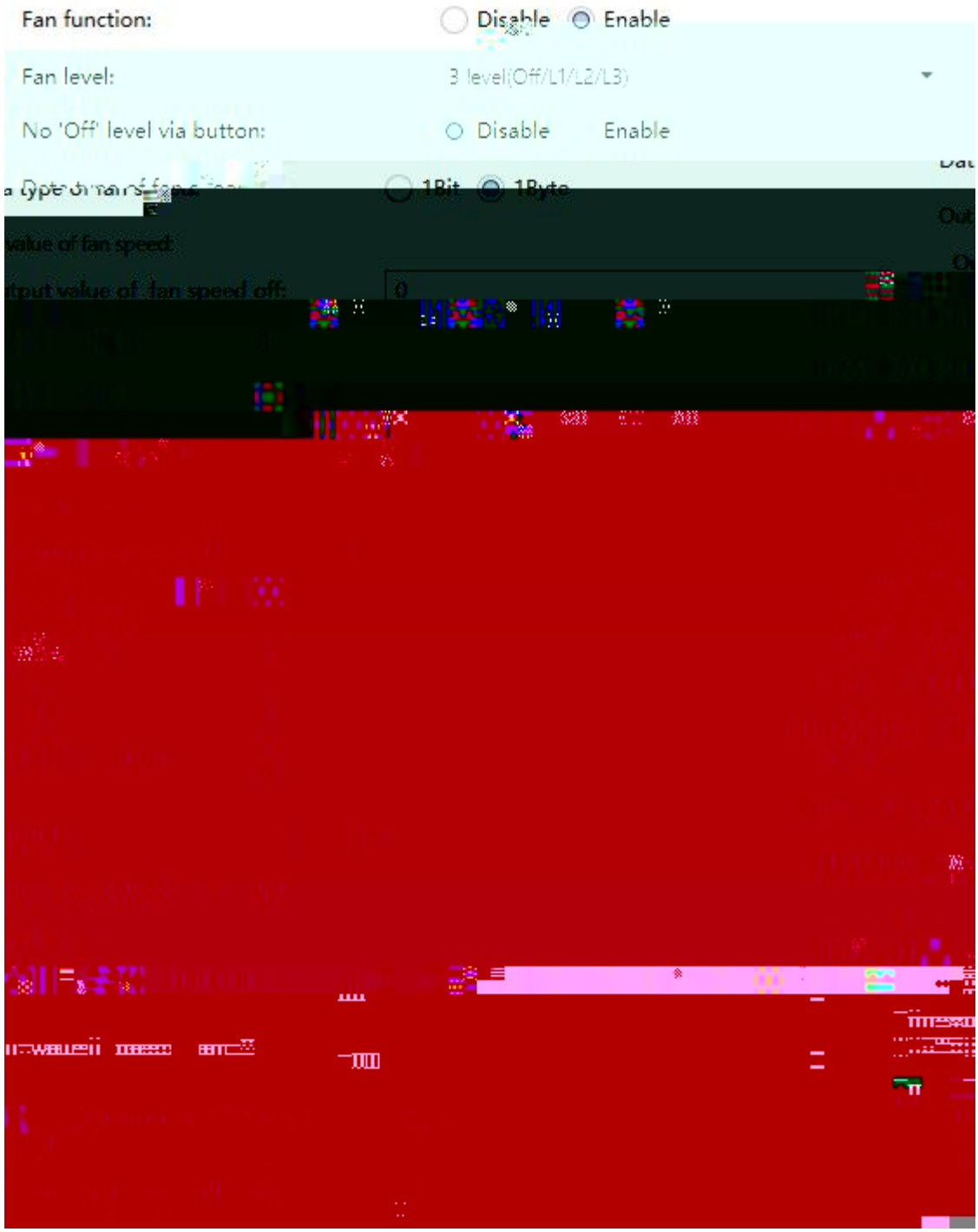
K

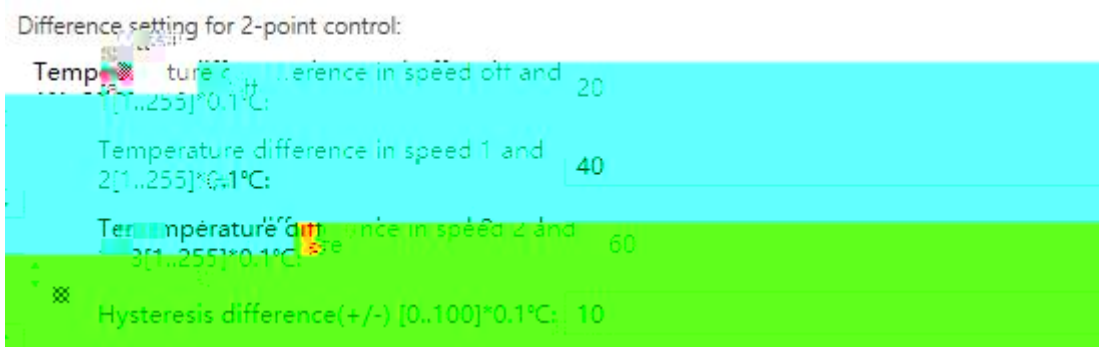
PI Y=K*(X1-X2 +X1*K*t/T_N+Y1

PI Y=K X1-X2 +Y1

K:	
K:	
T_N:	
T_N:	

k


Fan function:
Disable
Enable
Fan level:
3 level(Off/L1/L2/L3)
No 'Off' level via button:
Disable
Enable
1Bit
1Byte
0



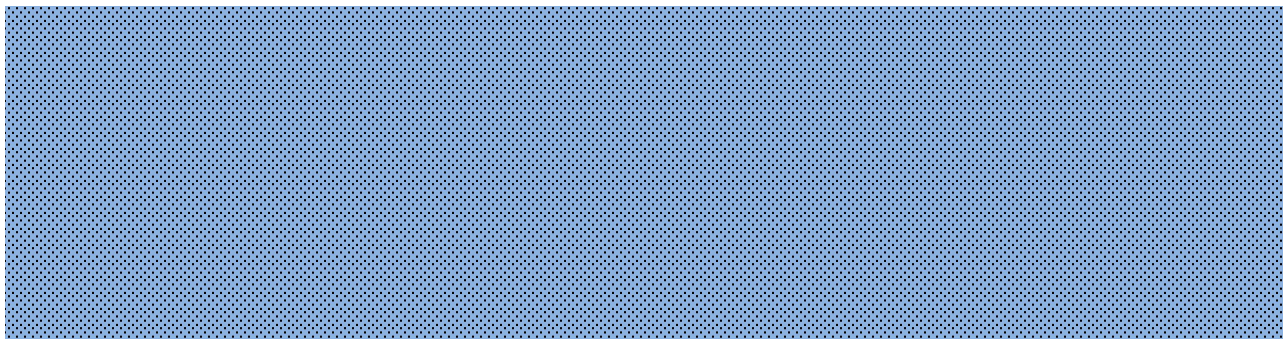
5.4.4 “HVAC Fan”

HVAC k

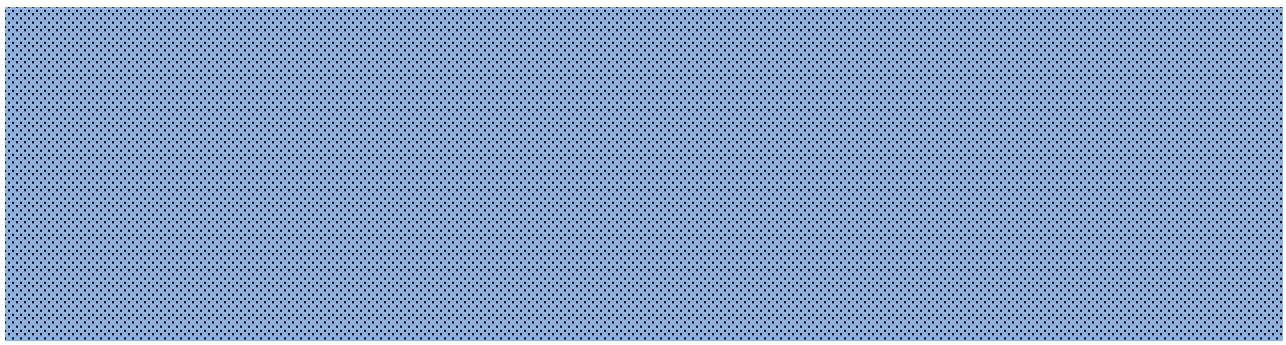
HVAC k

k

k

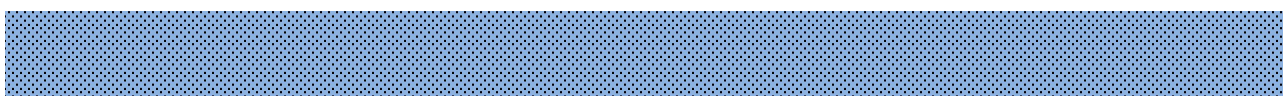


“1Byte” k k 0 k



“1Byte” k k

k



k

k

0 k



2 k 2

k

3 k 3

k

k

k

0.5 1 1.5 +

0.5 - 0.5 ~1.5

k 0.5 ( )1.5 k



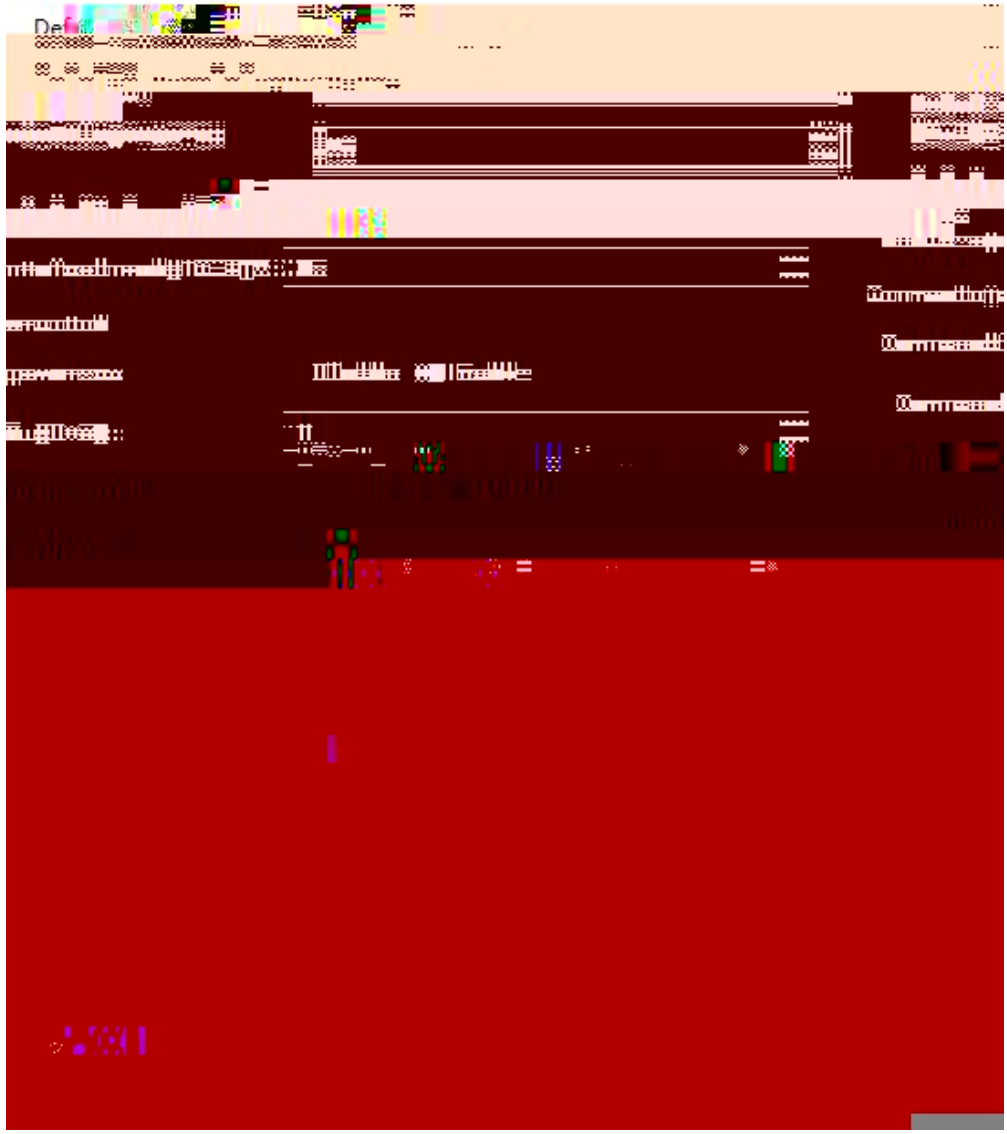
5.5.1 “AC General”

AC k

k k

AC k

Default setting after power-on:

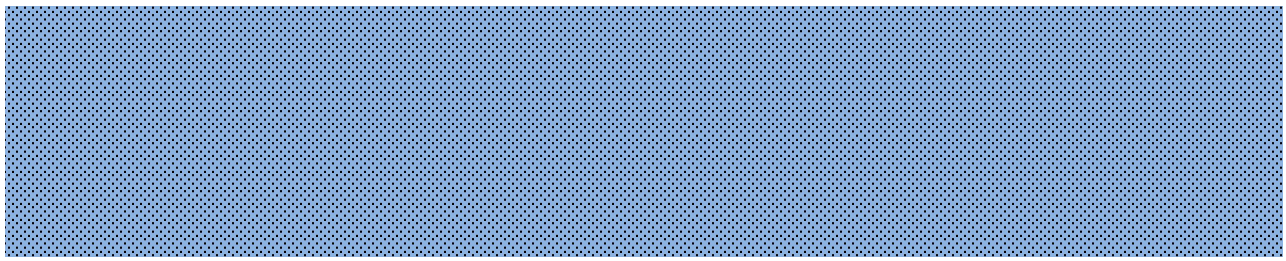


5.5.1.1 “IR split unit”

KNX/EIB

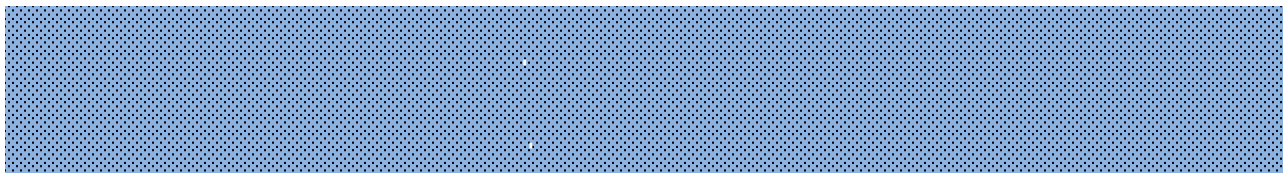
/ k

k / k

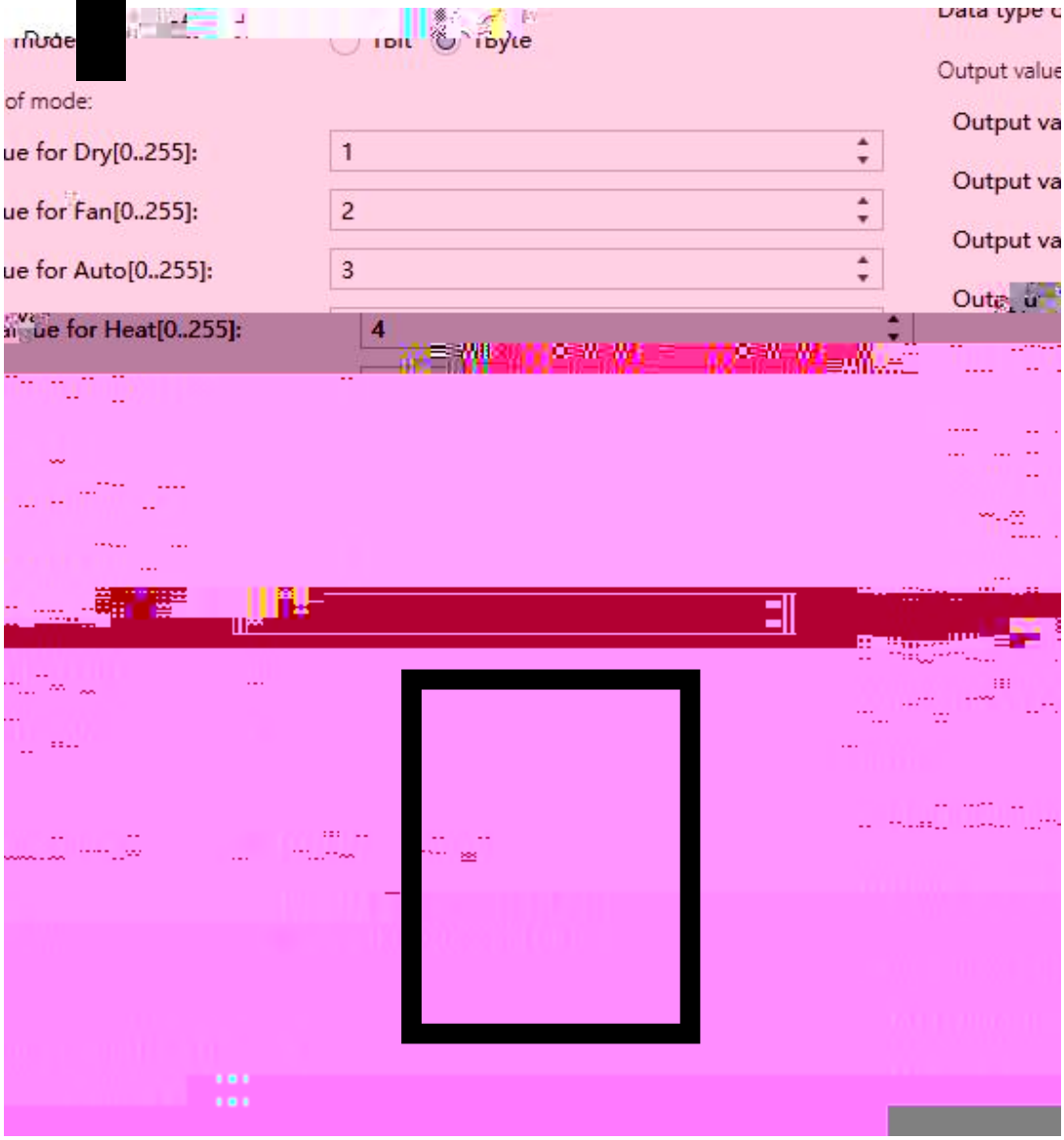


/ / k

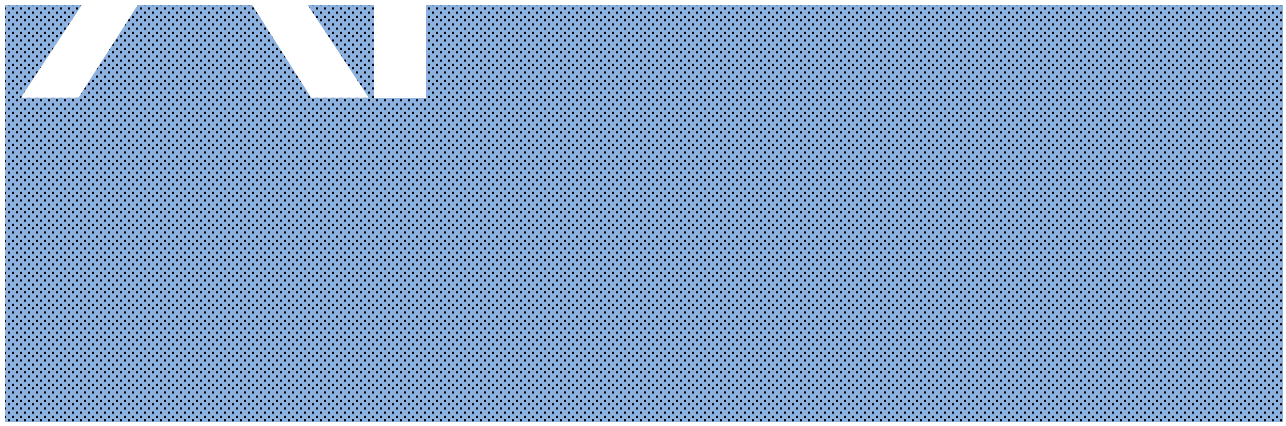
k / / k

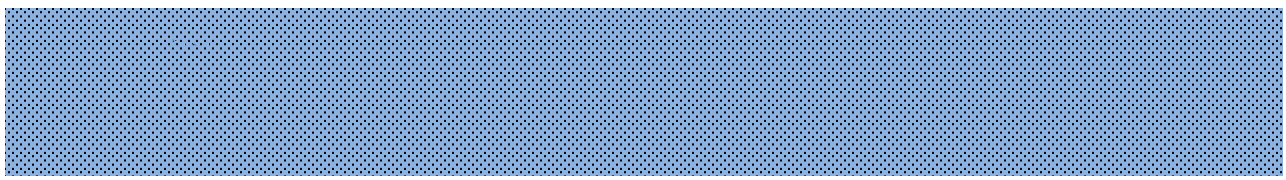


/ k


Output value
of mode:
ue for Dry[0..255]:
1
ue for Fan[0..255]:
2
ue for Auto[0..255]:
3
ue for Heat[0..255]:
4

5.5.1.2 “G w

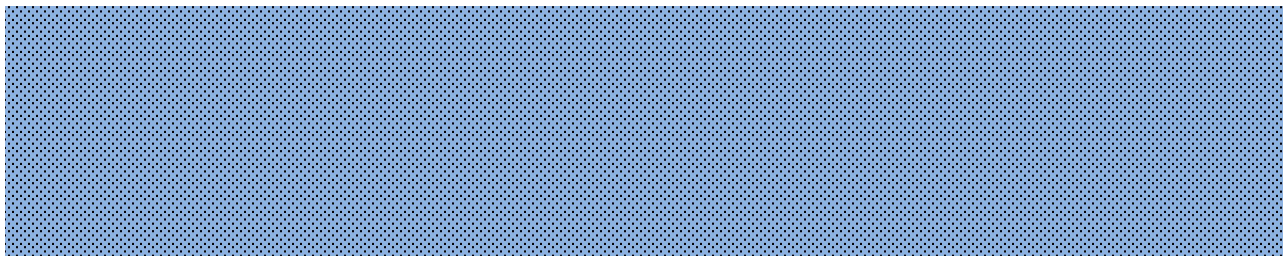







Command of fan speed:
Command for speed low:
Disable
Enable
Command value[0-64]:
5
Command for speed
Disable
Enable
Command value[0-64]:
6
Command for speed high:
Enable
Command value[0-64]:
7

5.5.2.1 “AC Fan”



/ / □ k

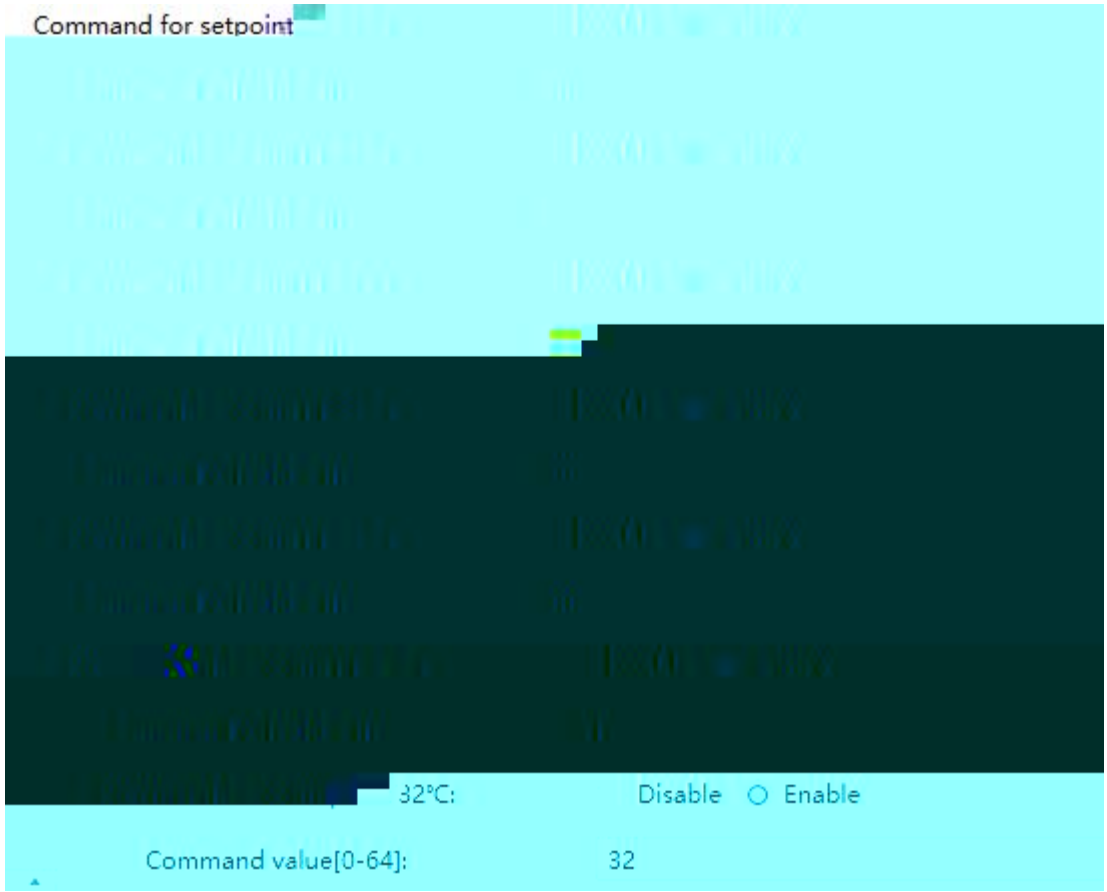


5.5.2.2 “Gateway interface”

k

/ / k

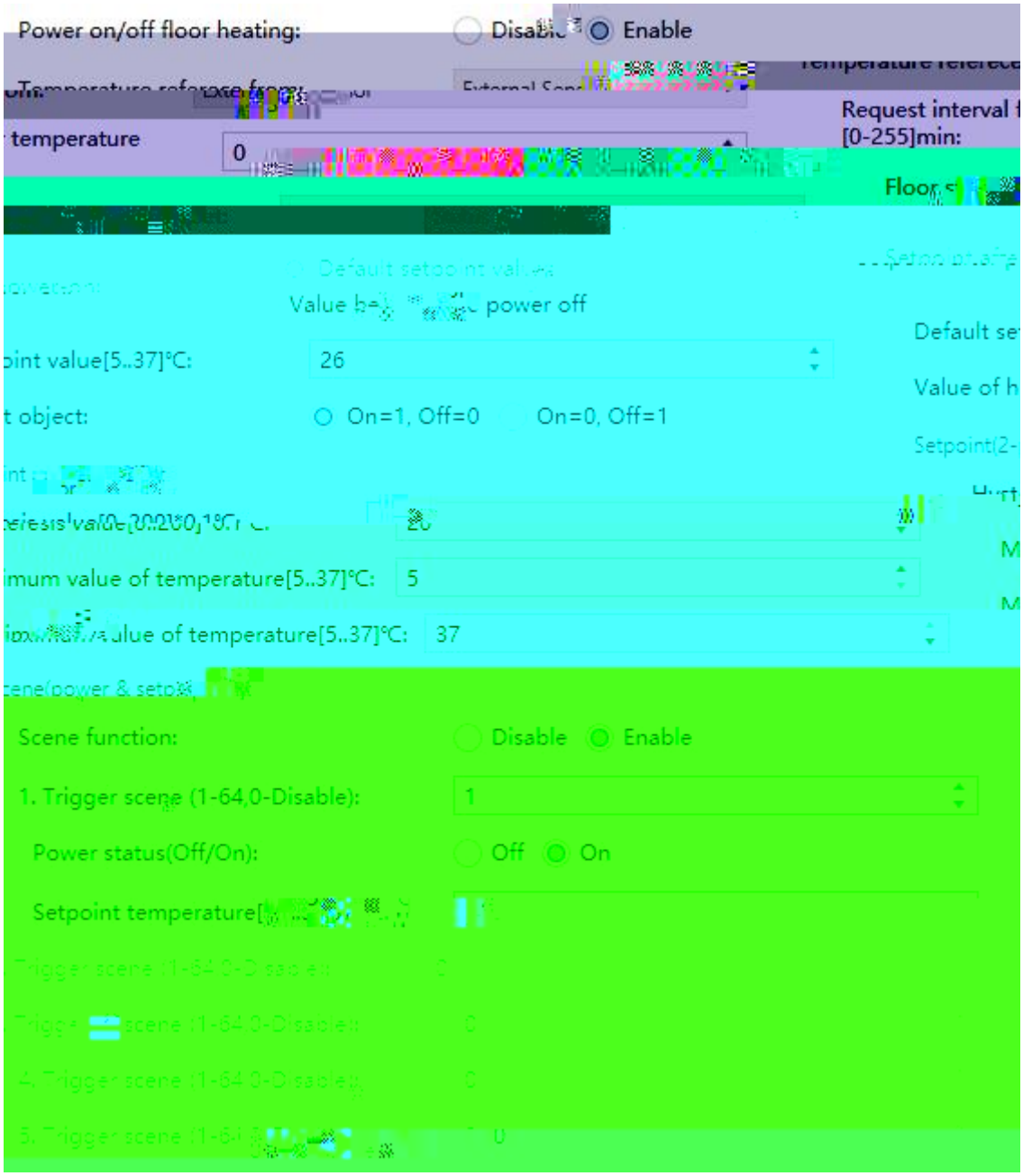

Setpoint in heat mode:
Command for setpoint 16℃:
Disable
Enable
Command value[0-64]:
16
Command for setpoint 17℃:
Disable
Enable



5.5.3 “AC heat/cooling”

k

k k



5.6 “Floor heating”

k

k

“External sensor” “Internal and External sensors” “External and PT100 sensors”

k k

“Internal and External sensors” “Internal and PT100 sensors” “External and PT100 sensors”

k ! ! PT100 k

“Internal and External sensors”

“Internal and PT100 sensors”

“External and PT100 sensors”

“40% Internal & 60% External” 40% 60%

= ×40% +

KNX/EIB KNX

k 5 k

0

k

“On” k



5.7.1 “Ventilation General”

k

k

“External sensor” k k

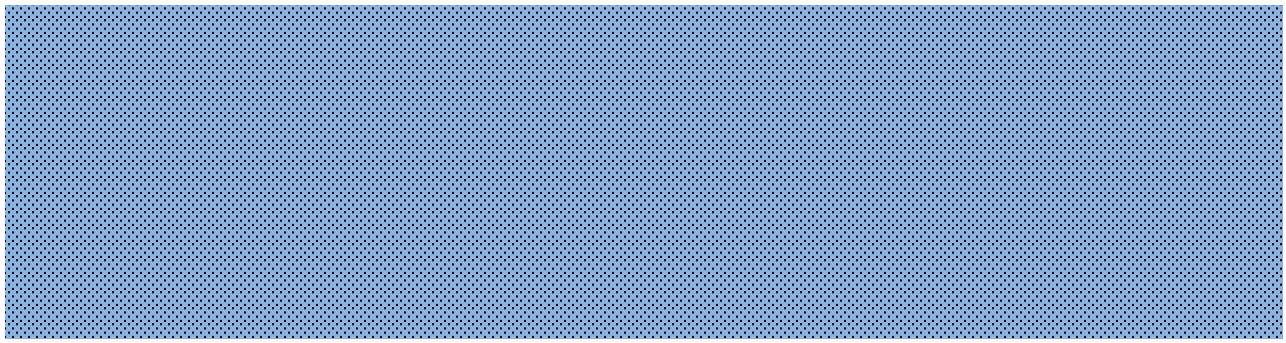
k

k

VT

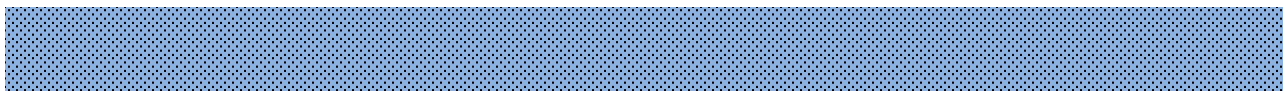
k

ZEPY

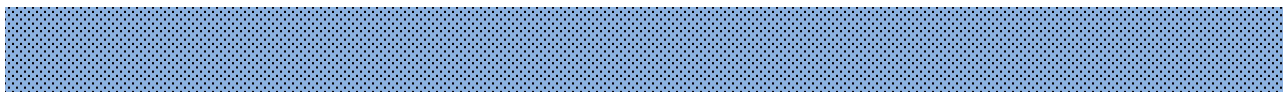


“1Byte” k / / / k

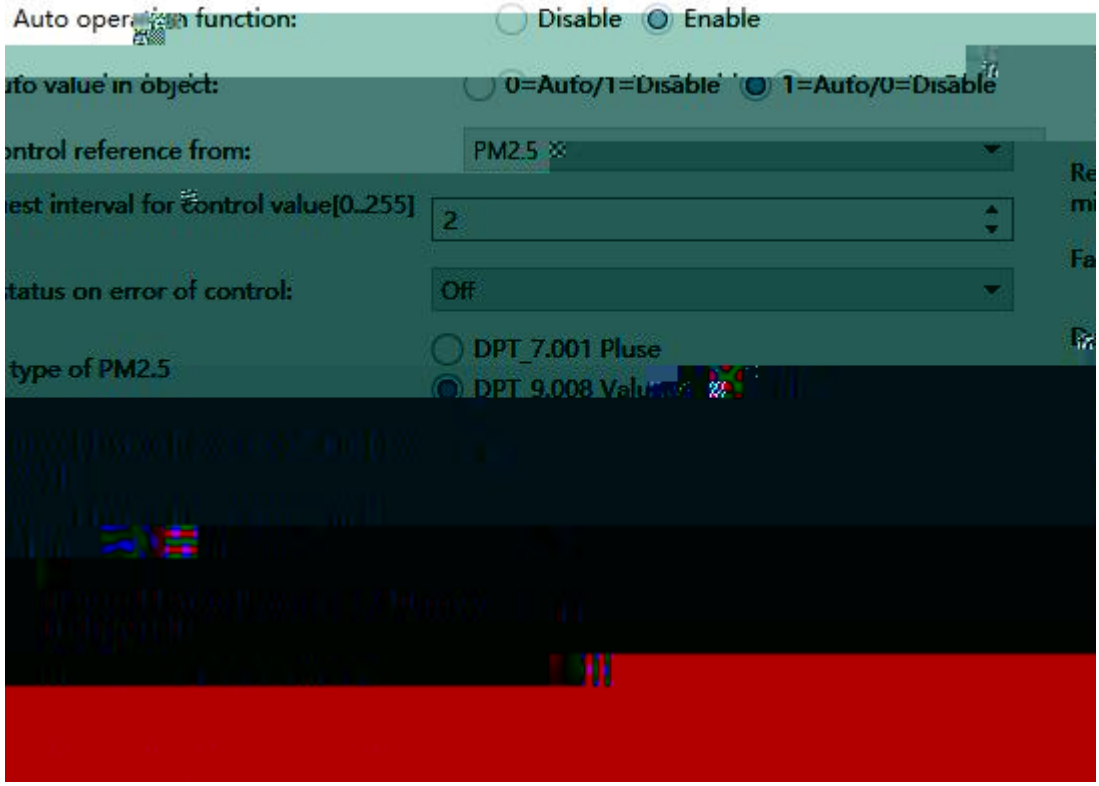
k



k



k



5.7.2 “Ventilation Auto”

k

k

k

PM2.5/VOC/CO2 k

k

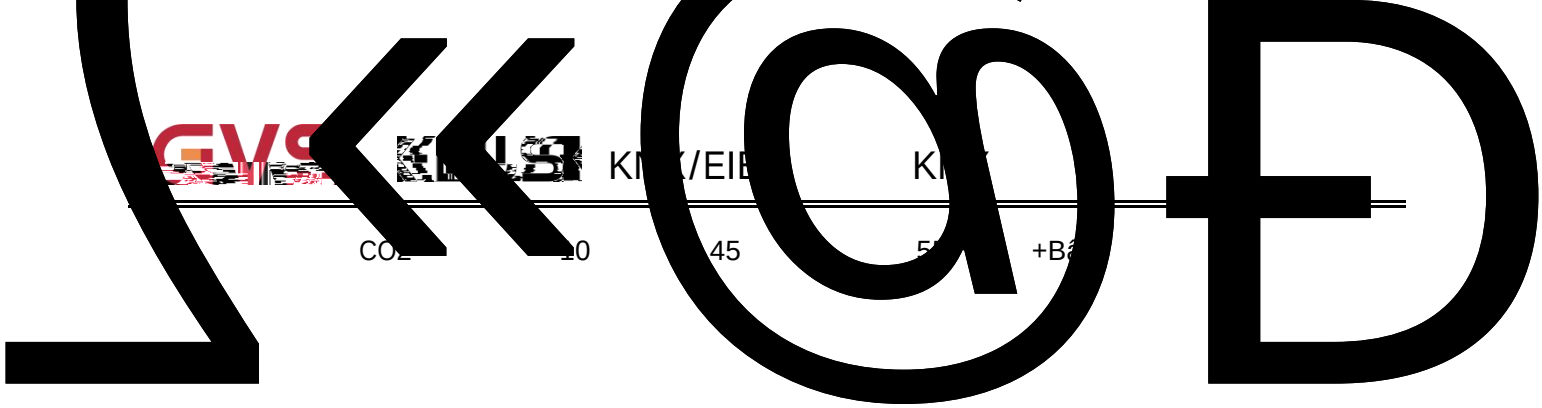
PM2.5/VOC/CO2 k PM2.5/VOC/CO2

k

DPT_7.001 Pulse k

DPT_9.008 Value_Air Quality k

KNX/EIB


KNX/EIB
CO2
10
45
+Ba

ů

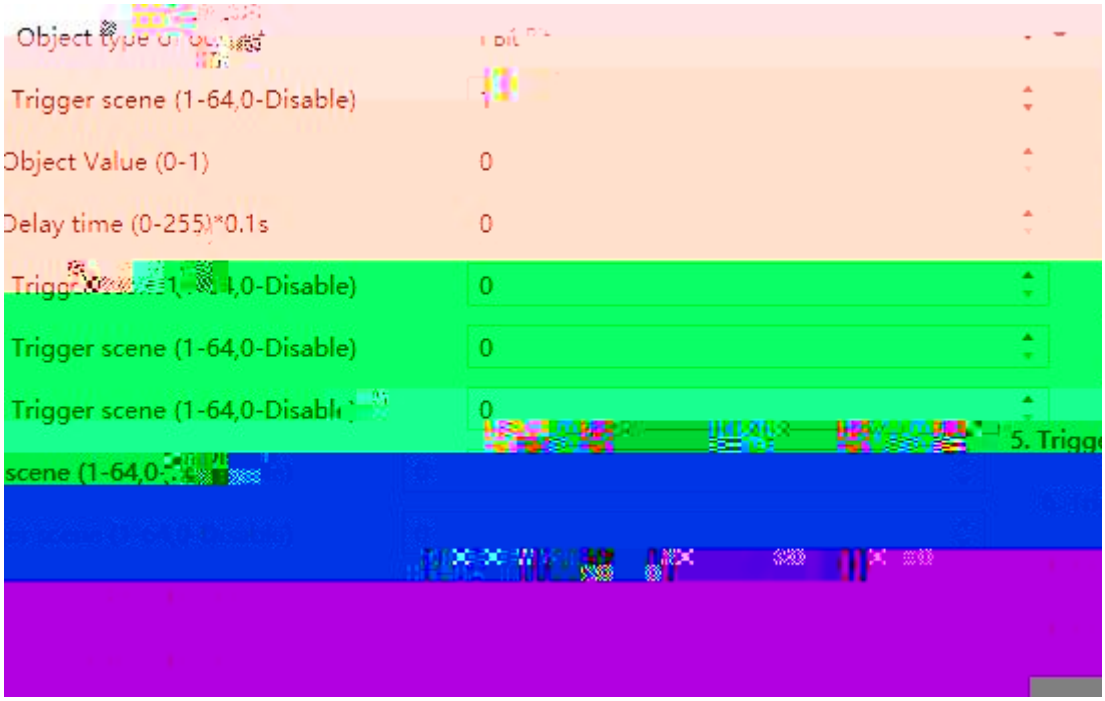
k

ů k

k

k

KNX/EE



5.8.1 “Event”

k

x y k 8 k

k

y k

“1bit”

“1byte”

“2byte”

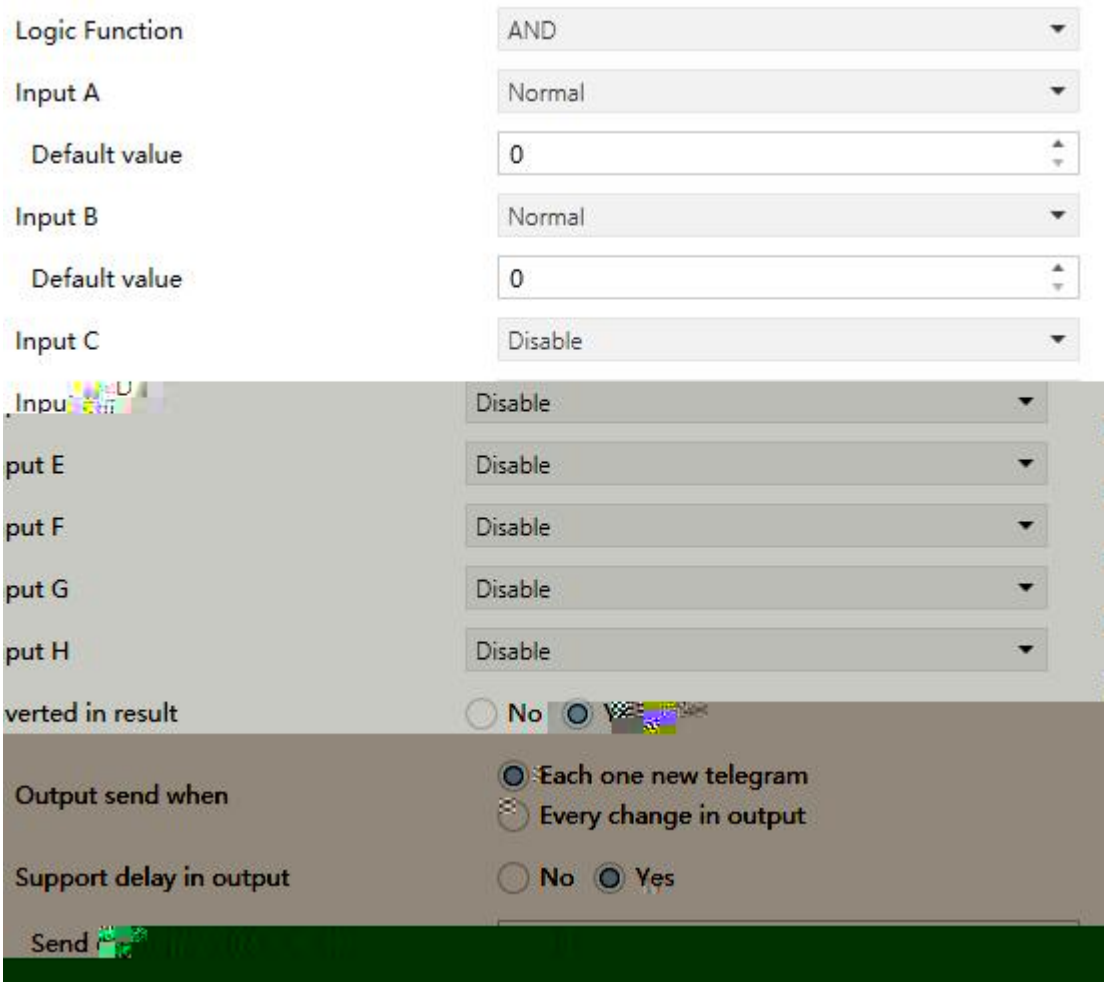
k :



5.8.2 “Logic”

k

AND/OR/XOR k



5.8.2.1 “AND/OR/XOR”

input x k

Disable k

Normal k

Inverted k

k

input x k

k

No k

Yes k

k

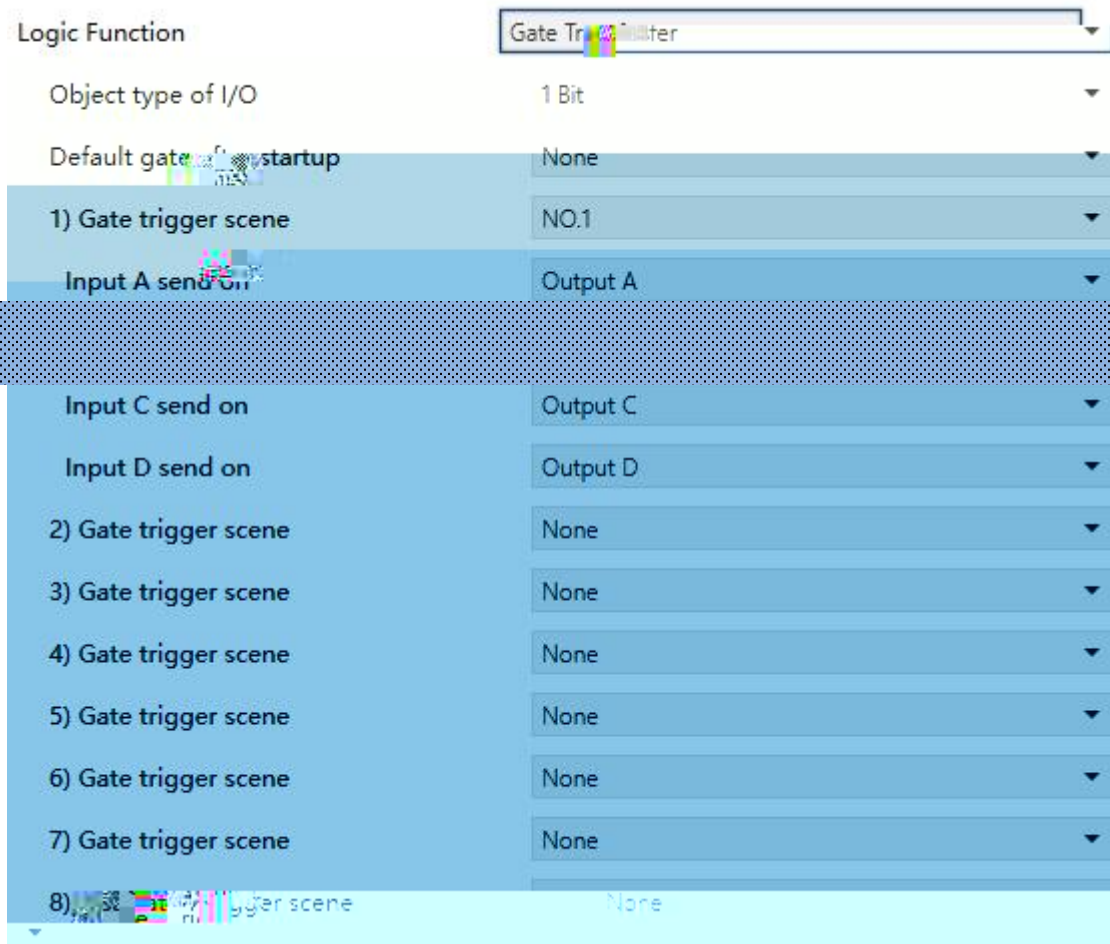
Each one new telegram k

Every change of output object k

k

k

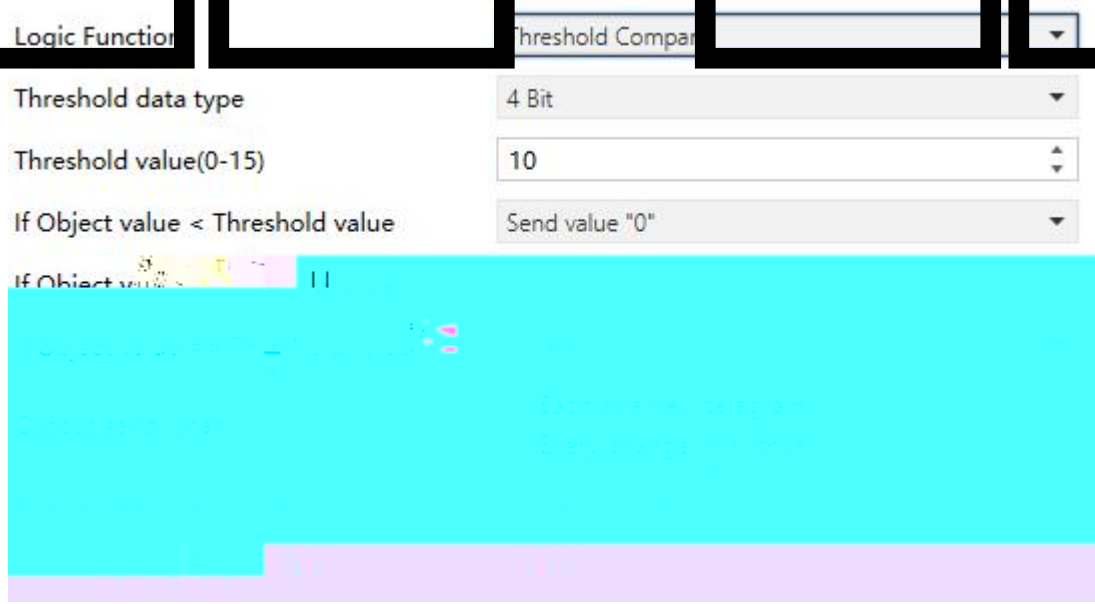
k k



5.8.2.2 “Gate forwarding”

k

k 8 k



5.8.2.3 “Threshold comparator”

□□ □□□□□

No action

Send value “0”/“1” 0 1



5.2.4 “Format convert”

k

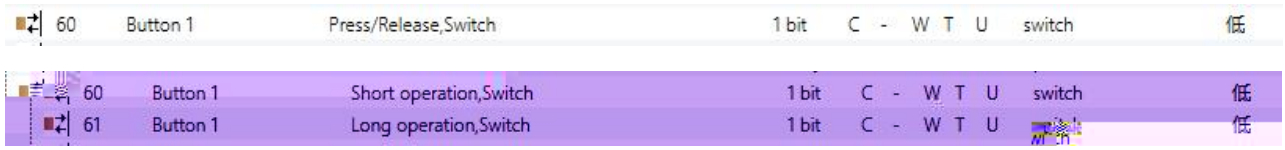
k

Each one new telegram k

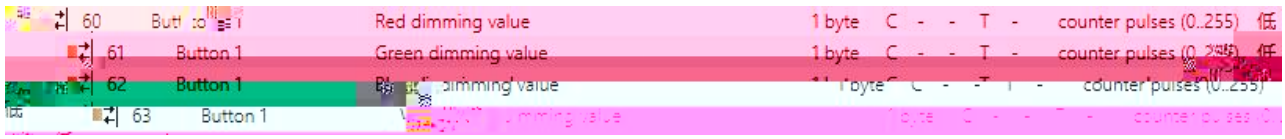
Every change in output k

k

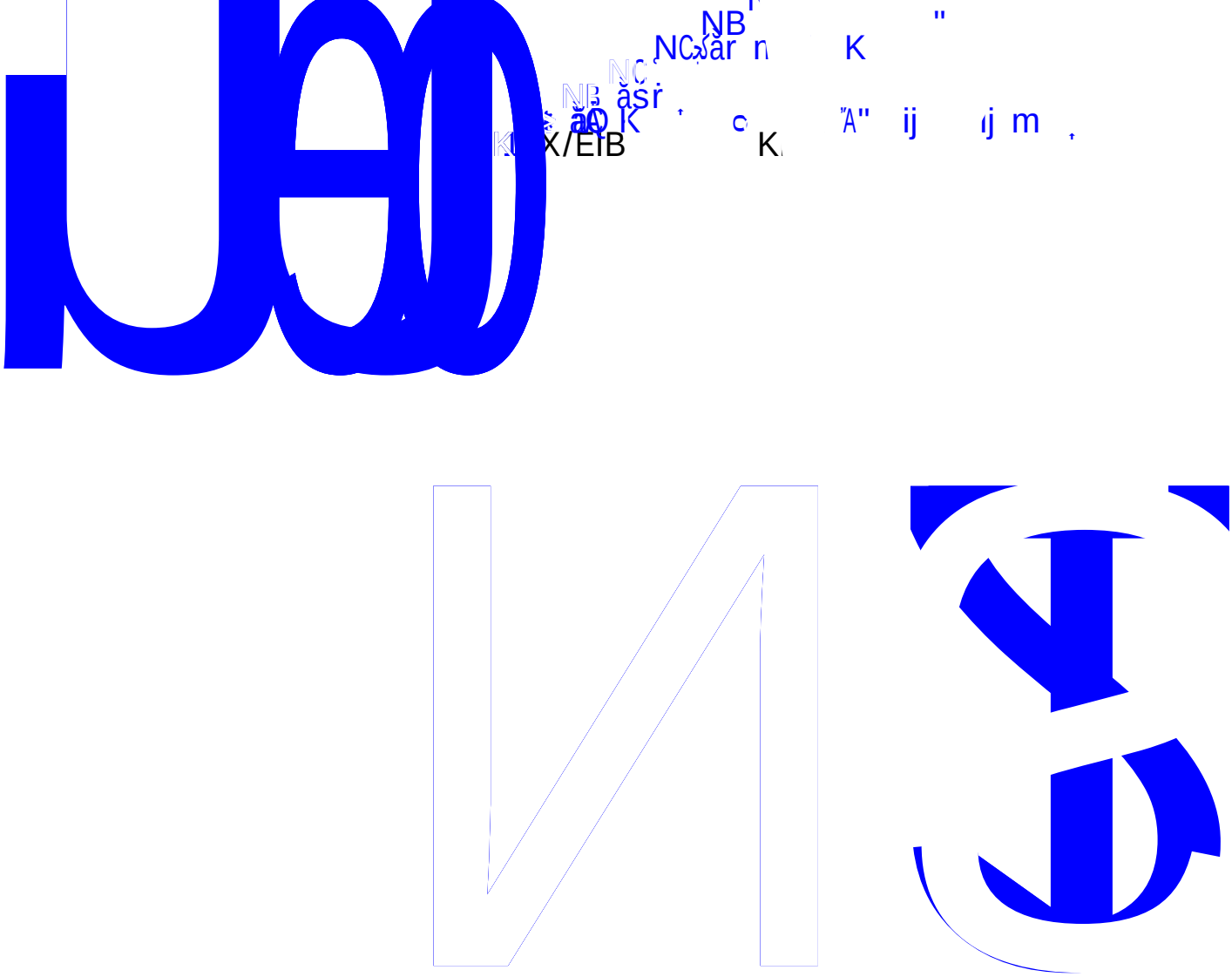
KNX/EIB


60 Button 1 Press/Release,Switch 1 bit C - W T U switch 低
60 Button 1 Short operation,Switch 1 bit C - W T U switch 低
61 Button 1 Long operation,Switch 1 bit C - W T U 低

SwitcÎ t ª t


60
Button 1
Red dimming value
1 byte C - - T - counter pulses (0..255)
61
Button 1
Green dimming value
1 byte C - - T - counter pulses (0..255)
62
Button 1
1 byte C - - T - counter pulses (0..255)
63
Button 1

KNX/



, “Press/Release operation, x value”

“Short Long operation, x value” k

k

k

Obj.60 RGB 1x3byte RGB

k

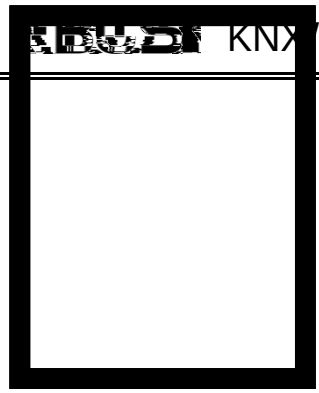
3 RGB U8 U8 U8

3MSB	2	1LSB
R	G	B
UUUUUUUU	UUUUUUUU	UUUUUUUU

R: G: B: k

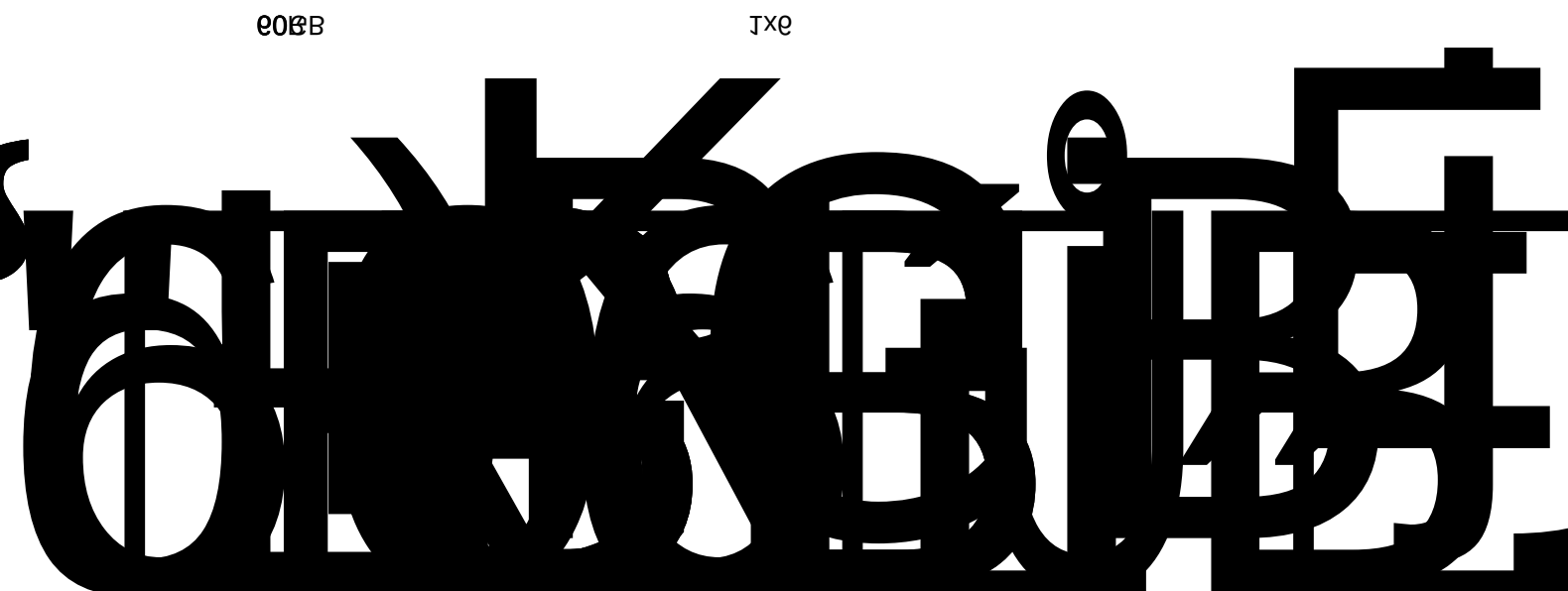
Obj.60 ! Obj.61 ! Obj.62 RGB 3x1byte k

R ( ) / G( ) / B( ) k 0...100%



Obj.60 RGBW 1x6byte

RGBL



		4			4
k				k	
		k			“Press/Release, Delay”
“Short Long operation, Delay”		k			
			k		
/				k	
		k			k

6.2“



3	Internal sensor	Internal temperature	2 bytes	C	R	-	T	-	temperature (°C)	低
4	Internal sensor	Error of internal sensor	1 bit	C	R	-	T	-	alarm	低
5	Internal sensor	Calibration (-10..10)℃	2 bytes	C	-	W	-	-	temperature (°C)	低
6	Pt100 sensor	Pt100 temperature	2 bytes	C	R	-	T	-	temperature (°C)	低
7	Pt100 sensor	Error of Pt100 sensor	1 bit	C	R	-	T	-	alarm	低
8	Pt100 sensor	Calibration (-10..10)℃	2 bytes	C	-	W	-	-	temperature (°C)	低

6.3“Temperature”

DPT

-

	'				'
PT100			k		

6.3“Temperature”

“Thermostat function”

k

“HVAC control mode” “Heating and Cooling” k

/ k k

k

“1Byte” 17 k

“1Bit”

17 / k

17 1

18 2

“HVAC control mode” “Heating and Cooling” k

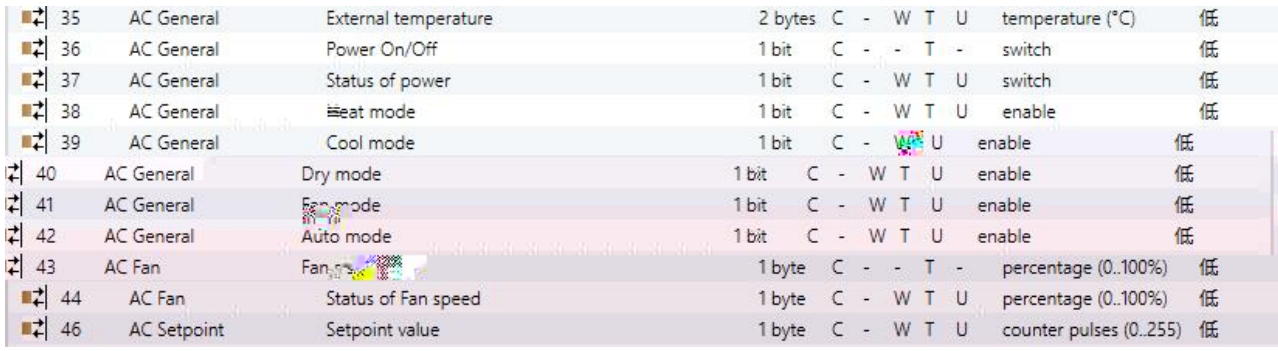
k

0

1

KXC

“Thermostat function” “AC”



35	AC General	External temperature	2 bytes	C	-	W	T	U	temperature (°C)	低
36	AC General	Power On/Off	1 bit	C	-	-	T	-	switch	低
37	AC General	Status of power	1 bit	C	-	W	T	U	switch	低
38	AC General	Heat mode	1 bit	C	-	W	T	U	enable	低
39	AC General	Cool mode	1 bit	C	-	W	T	U	enable	低
40	AC General	Dry mode	1 bit	C	-	W	T	U	enable	低
41	AC General	Fan mode	1 bit	C	-	W	T	U	enable	低
42	AC General	Auto mode	1 bit	C	-	W	T	U	enable	低
43	AC Fan	Fan	1 byte	C	-	-	T	-	percentage (0..100%)	低
44	AC Fan	Status of Fan speed	1 byte	C	-	W	T	U	percentage (0..100%)	低
46	AC Setpoint	Setpoint value	1 byte	C	-	W	T	U	counter pulses (0..255)	低

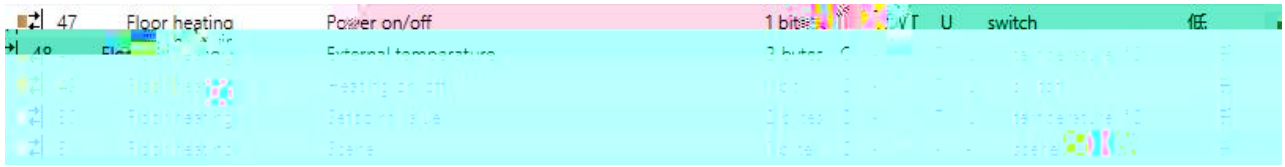
6.5“AC”

					DPT
“Temperature display from” “External Sensor” k k					
“Control mode” “IR split unit” k KNX k					
“Control mode” “Gateway interface” k KNX k					

k

“Data type of mode” “1Bit” k k 42 ˚ 43 ˚ 44 ˚ 42 ˚					
“Data type of fan speed” “1Byte” k k					
					'
k					

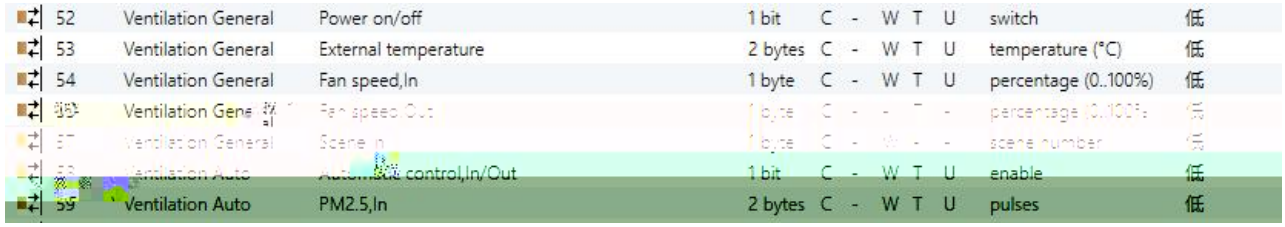
6.5“AC”



6.6 “Floor heating”

					DPT
KNX k					
					'
“Temperature reference from” “External Sensor” k k					
k					
					'
k					
“Scene function” k k					

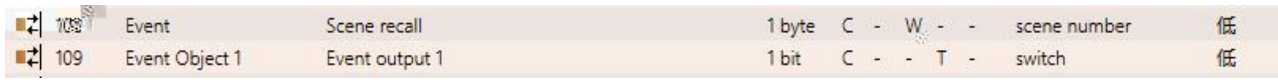
6.6 “Floor heating”



52	Ventilation General	Power on/off	1 bit	C	-	W	T	U	switch	低
53	Ventilation General	External temperature	2 bytes	C	-	W	T	U	temperature (°C)	低
54	Ventilation General	Fan speed,In	1 byte	C	-	W	T	U	percentage (0..100%)	低
55	Ventilation Gene	Fan speed,Out	1 byte	C	-	-	T	-	percentage (0..100%)	低
57	Ventilation General	Scene In	1 byte	C	-	W	-	-	scene number	低
58	Ventilation Auto	Automatic control,In/Out	1 bit	C	-	W	T	U	enable	低
59	Ventilation Auto	PM2.5,In	2 bytes	C	-	W	T	U	pulses	低

6.7“Ventilation”

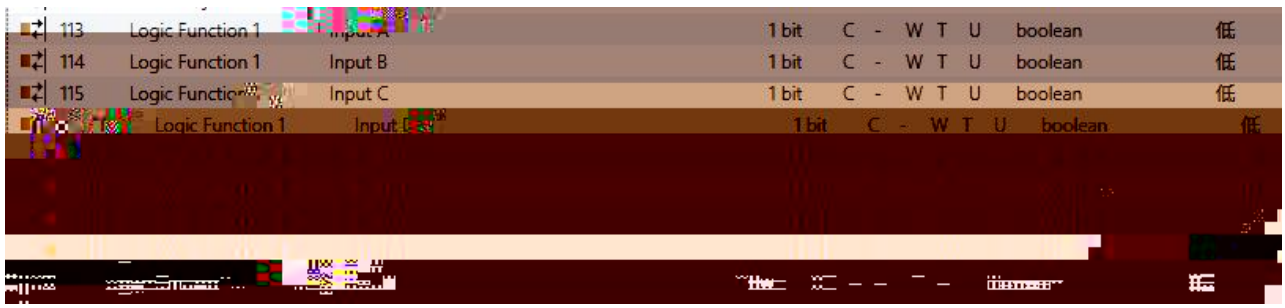
“Data type of fan speed” “1Byte” □□



6.8.1 “Event”

					DPT
					k 0..63
k 4 8 k					k

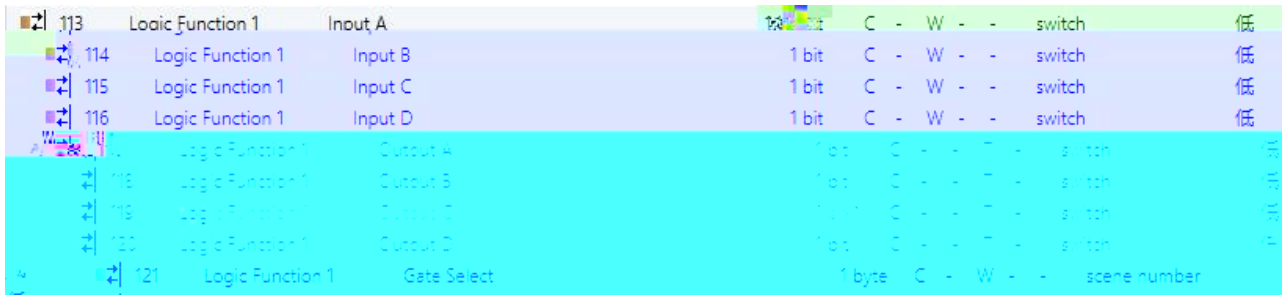
6.8.1 “Event”



6.8.2.1 “And/OR/XOR”

					DPT
Input x k					
k					

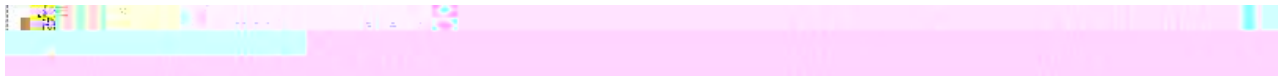
6.8.2.1 “And/OR/XOR”



6.8.2.2“Gate Transfer”

DPT

k



6.8.2.3 “Threshold Compare”

					DPT
k					
k					k

6.8.2.3 “Threshold Compare”

KNX/EIB KNX

“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



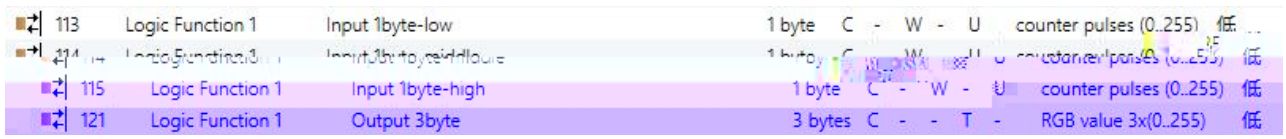
“1x2byte --> 2x1byte” 1 2byte 2 1byte Input 2byte = 55500 ($D8 CC) --> Output 1byte-low = 204 ($CC), Output 1byte-high =216 ($D8)



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



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



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

6.8.2.4 “Format convert”

					DPT
k					
k					

6.8.2.4 “Format convert”