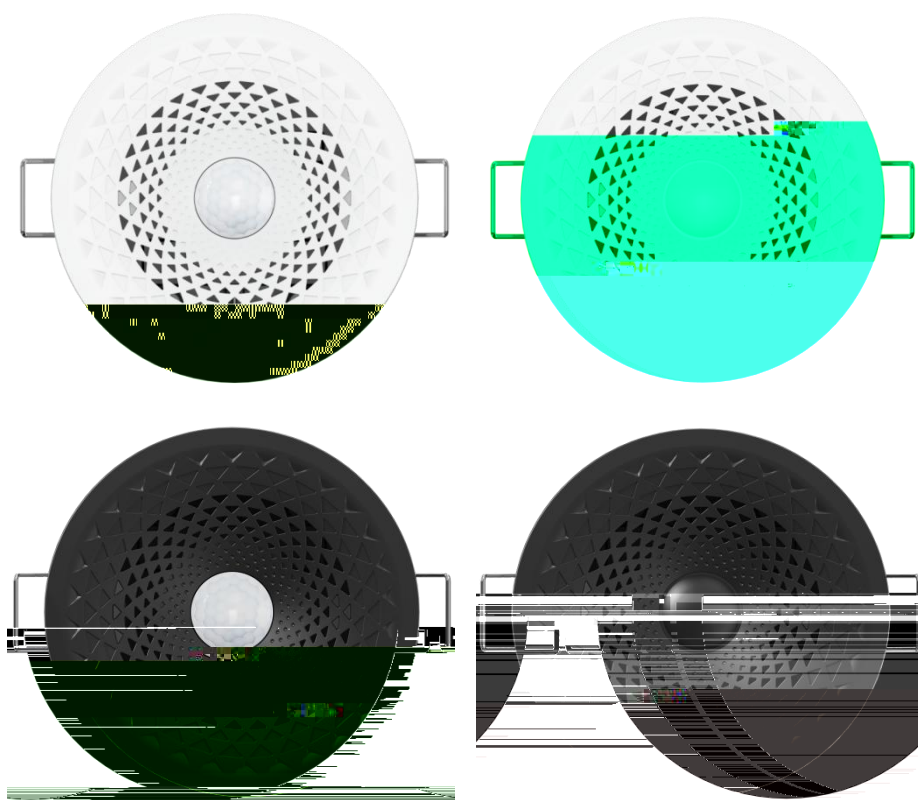
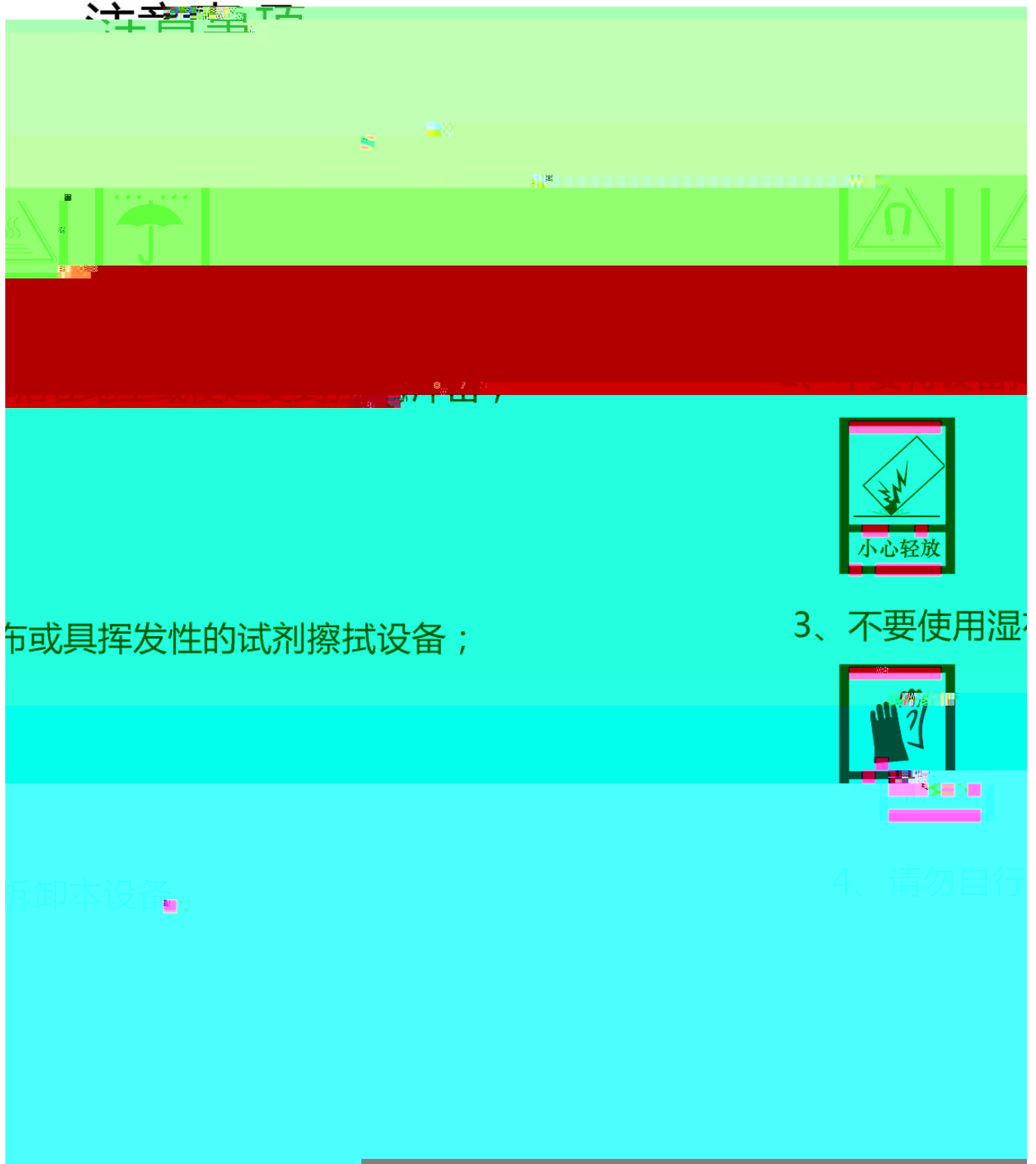


K-BUS





布或具挥发性的试剂擦拭设备；

3、不要使用湿

拆卸本设备

4、请勿自行

----- 117

----- 124

----- 127

----- 130

KNX

KNX

PM2.5 PM10 CO2 TVOC

/

CO2

KNX

12-30V DC

.knxprod

ETS

ETS5.7



PM2.5 PM10 CO2 TVOC

AQI



PM2.5

PM10

TVOC

AQI

●AQI CO2 PM2.5 PM10 TVOC

● 4

●

●

● HVAC 2 PI

2 4

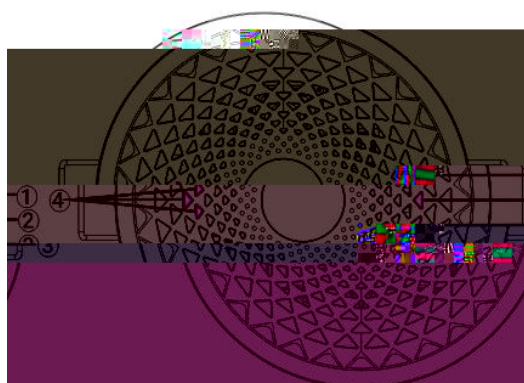
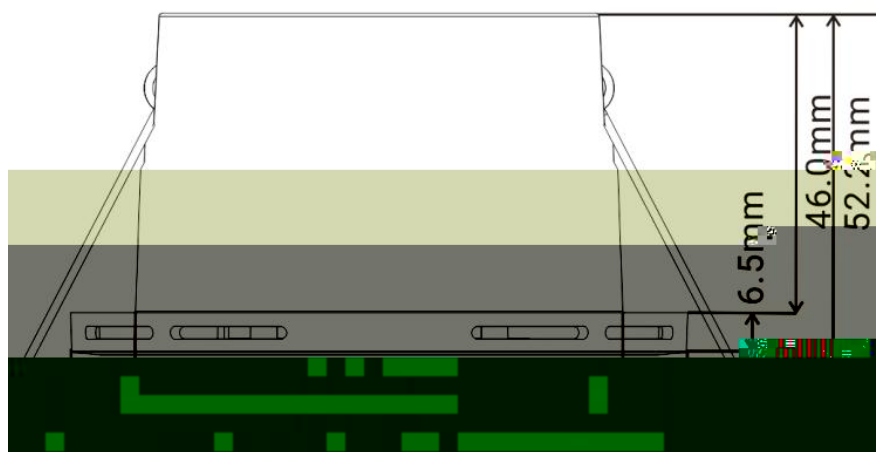
● / /CO2 3 / /CO2

●

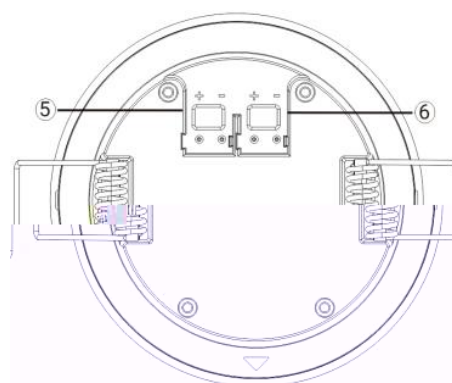
● KNX

CSMS-04/00.1.00	Temp./RH/PM2.5/PM10
CSMS-05/00.1.00	Temp./RH/CO2/PM2.5/PM10
CSMS-06/00.1.00	Temp./RH/CO2/PM2.5/PM10/TVOC
CSMS-09/00.1.00	Temp./RH/CO2/PM2.5/PM10/TVOC/Formaldehyde/Brightness/Motion

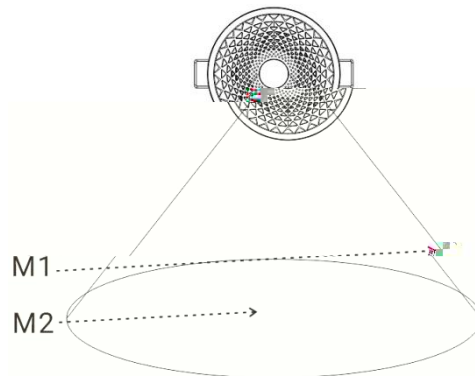
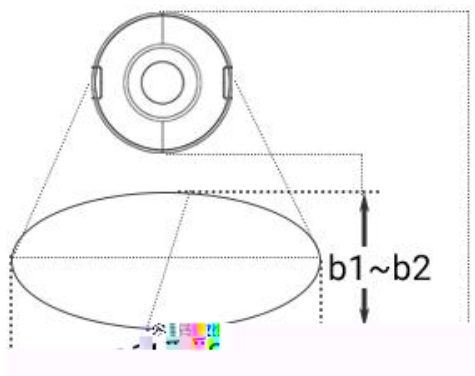
	21-30V DC,	KNX
	<4mA/24V	<4mA/30V
	<100mW	
	12-30V DC	
	<16mA/24V DC	<12mA/30V DC
	<0.5W	
KNX	/	0.8 mm
	/	
LED		
	-10°C~ + 45 °C	
	0~100%	
	0-1000µg/m³	
	50%(φ=0.3um),	98%(φ≥0.5 um)
	≤1s	
	400~2000ppm	
	0~65000ppb	
	0~5 ppm	
	0~10000 Lux	
	- 5 °C ... 45 °C	
	- 25 °C ... 55 °C	
	- 25 °C ... 70 °C	
	<93%	
	CSMSA-00/0.1.0x	
	2.5~6m	
	† 95*95*52.2mm	
	0.2kg	



LED



KNX

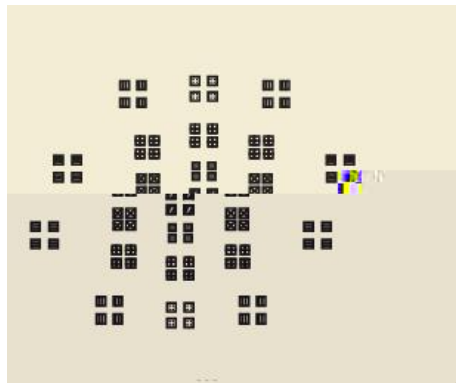


3.3.2(1)

1m/s

(H)

(



3.3.2(2)

PM2.5 PM10 CO2 TVOC

4

2

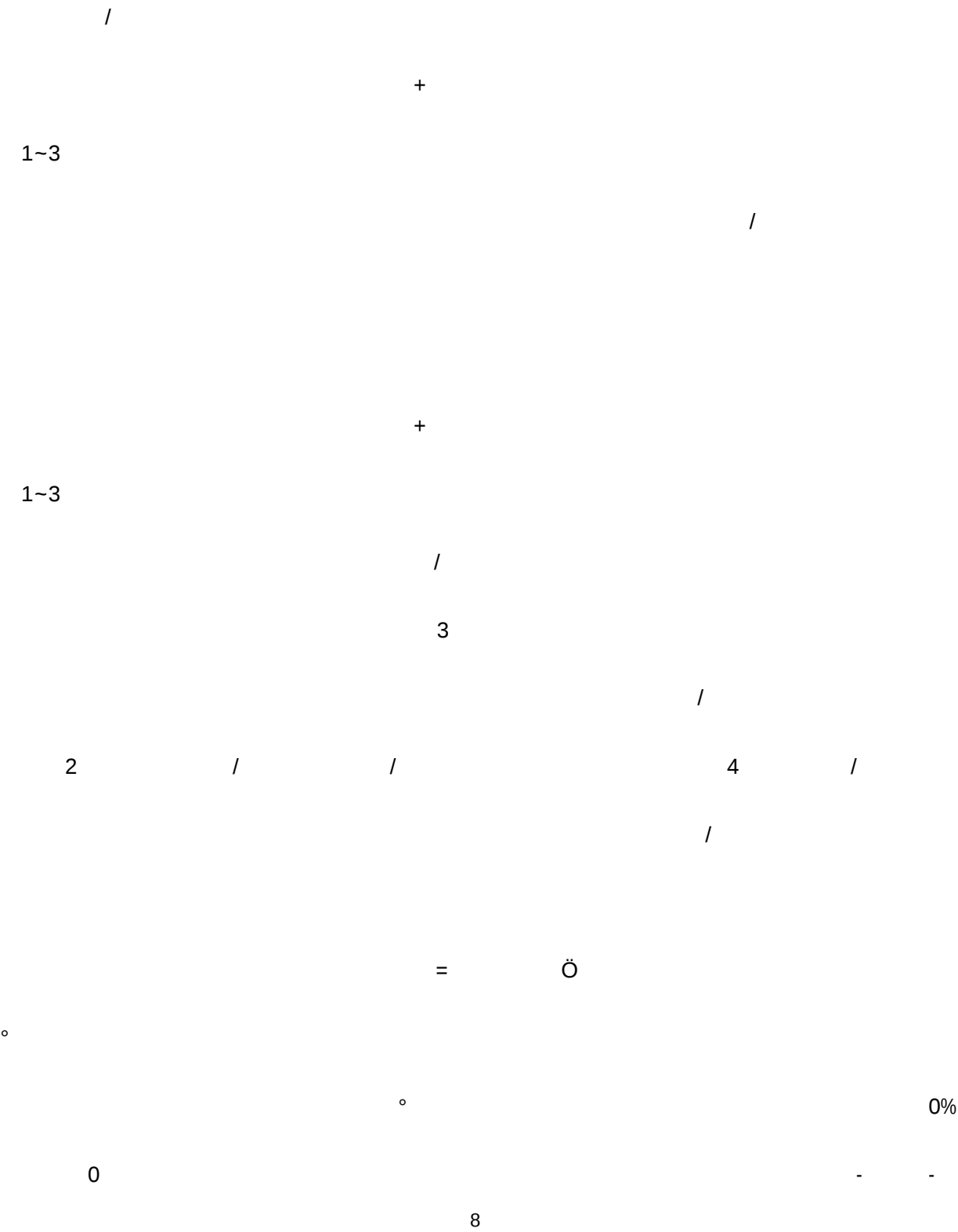
/

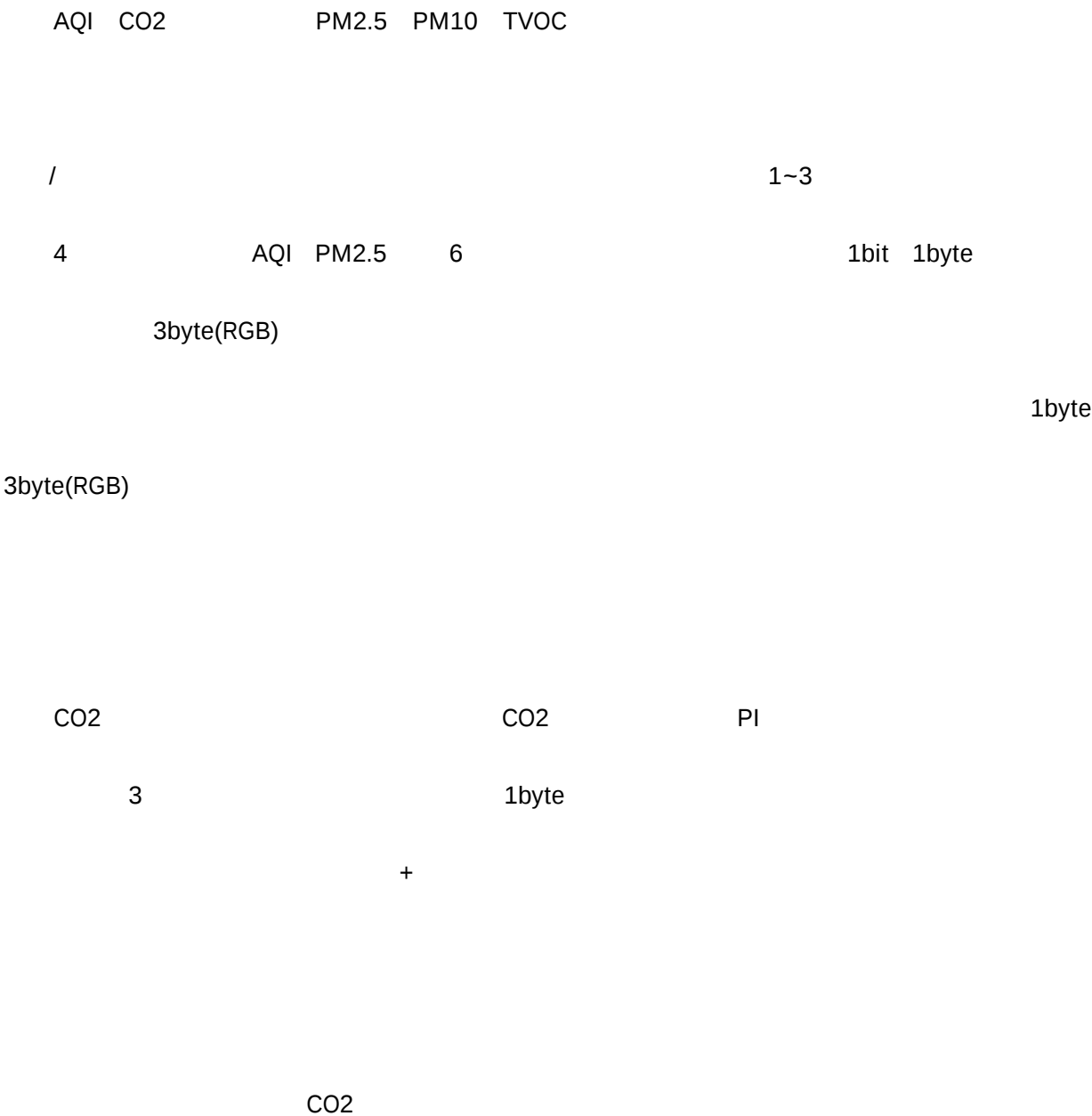
3 (A/B/C

D/E/F) 3

/

2





/

4

/

PI

PM2.5 CO2 TVOC

3

1bit/1byte

8

8

1

8

5

8

KNX/EIB

❖ KNX

FDSK =

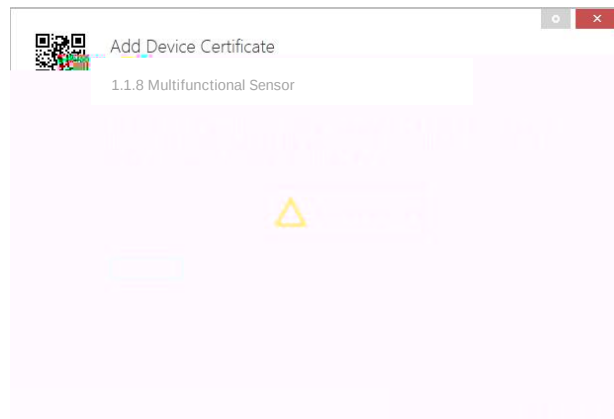
ETS

✧

ETS

5.1 (2)

QR



5.1(2) Add Device Certificate

✧

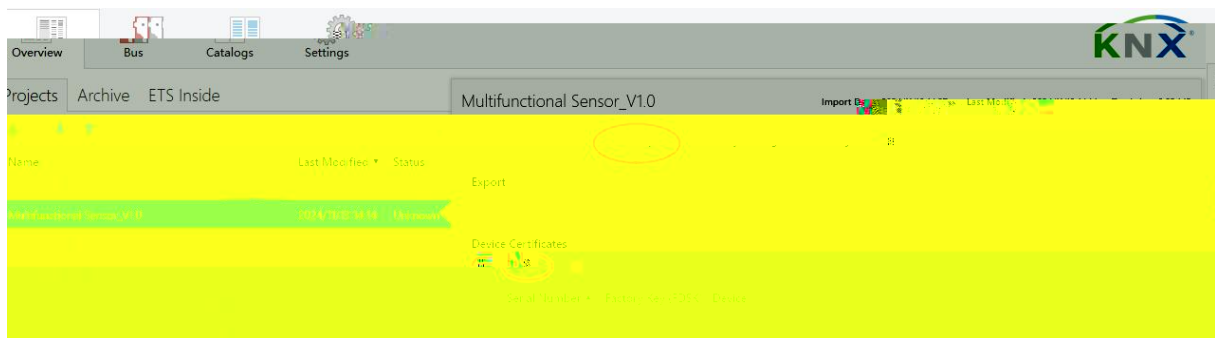
ETS

“Security”

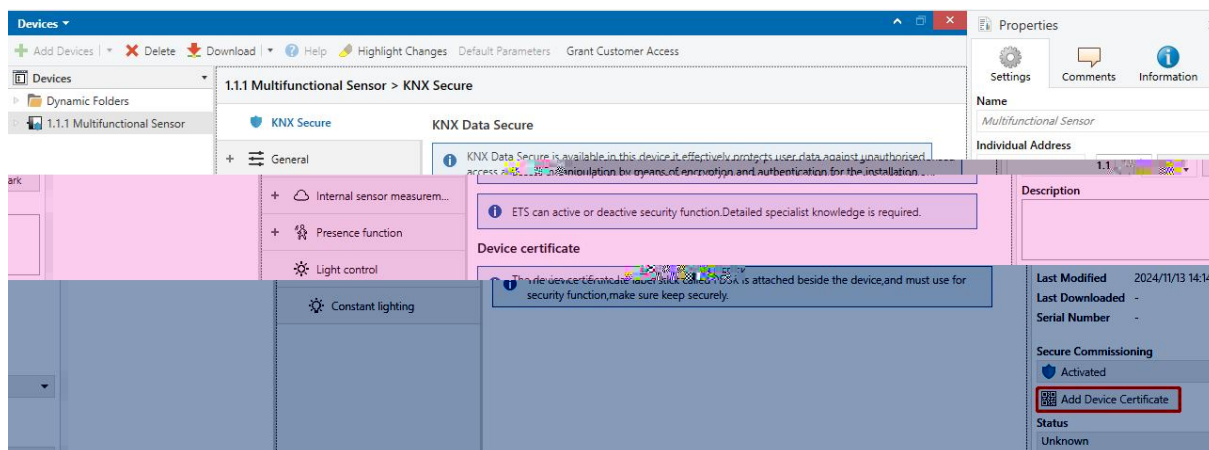
5.1(3)

“Add Device Certificate”

5.1(4)



5.1(3) Add Device Certificate



5.1(4) Add Device Certificate



FDSK

FDSK

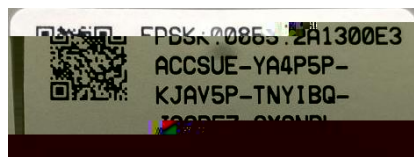
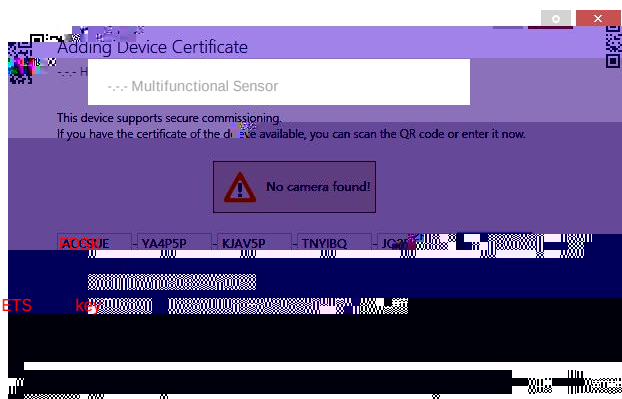
FDSK

ETS

5.1(5)

ETS

FDSK



5.1(5)

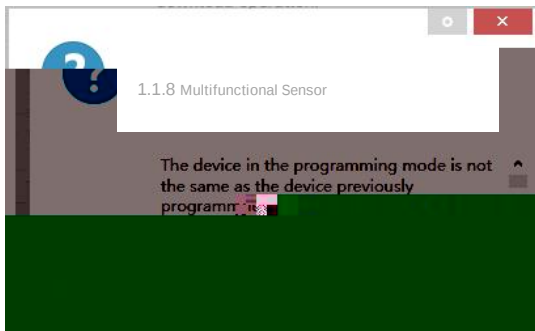
5.1(6)

“Yes”

“Add Device Certificate”

FDSK

5.1(6)



5.1(6)

“Add Device Certificate”

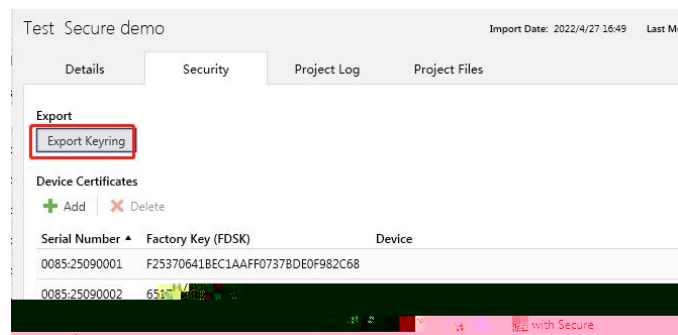


5.1(7)

ETS

5.1(8)

.knxkeys



5.1(8)

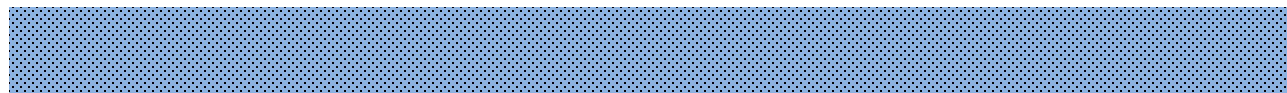
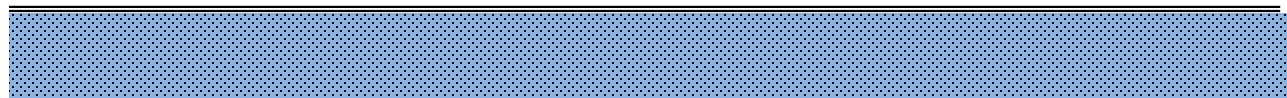
Send delay after voltage recovery [0..15] s

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

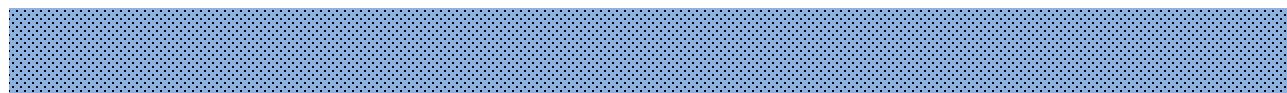
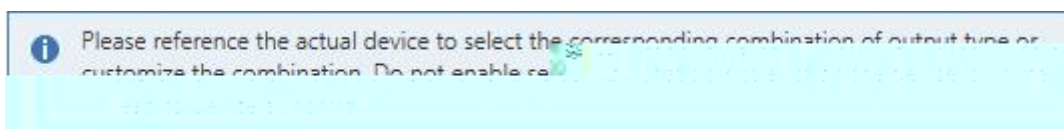
i Please reference the actual device to select the corresponding combination of output type or customize the combination. Do not enable sensors that do not exist on the device, or it may lead to device abnormally.

Combination of output type	PM2.5/PM10/TVOC/Formaldehyde/CO2/Temp./RH/Brightness/Motion ▼
PM2.5&PM10 sensor	☒
TVOC sensor	☒
Formaldehyde sensor	☒
CO2 sensor	☒
Temperature&Relative Humidity sensor	☒
Brightness sensor	☒
Motion sensor	☒
Object datatype of TVOC	Float value in ug/m3(DPT_9.030) ▼
Object datatype of Formaldehyde	☒ Float value in ug/m3(DPT_9.030)

5.2.1 "General setting"



			"0"	"In
operation"	"0"	"In operation"		"1"



PM2.5&PM10

(TVOC)

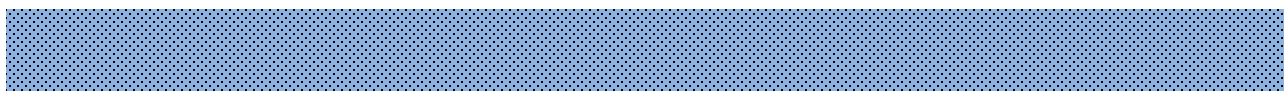
(CO2)

&

5.3.1-5.3.8.

(TVOC)

(TVOC)



✖ The selected for Alarm LED indication is not enabled

PM2.5

PM10

PM10

PM10

PM10

PM10

CO2

CO2

CO2

TVOC

TVOC

TVOC

[

[

Air Quality Level function	☒
Air Quality controller	☒
Room temperature controller	☒
Ventilation controller	☒
Logic function	☒
Scene group function	☒

5.2.2 "Advanced function"

5.4

5.5

5.9

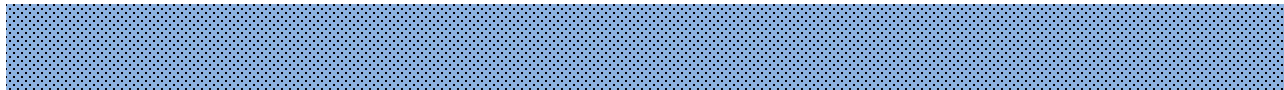
5.10

5.11

5.12

Temperature calibration	0.0	▼ K
Send temperature when the result change by	1.0	▼ K
Cyclically send temperature [0..255,0=inactive]	10	▲▼ min
Send alarm telegram for low/high temperature	Respond after read only	▼
Threshold value for low temperature alarm [0..15]	0	▼ °C
Threshold value for high temperature alarm [30..45]	45	▼ °C

5.3.1 "Temperature sensor"



Disable

0

/

No respond

Respond after read only

“ Low temperature alarm”/“ High temperature alarm”

Respond after change

“ Low temperature alarm”/“ High temperature

alarm”

“Respond after read only”

“Respond after change”

Humidity calibration	0	%
Send humidity when the result change by [0..20]	5	%
Cyclically send humidity [0..255,0=inactive]	10	min
Send alarm telegram for low/high humidity	Respond after read only	
Threshold value for low humidity alarm [5..50]	15	%
Threshold value for high humidity alarm [55..85]	70	%

5.3.2 "Relative humidity sensor"

No respond

Respond after read only

“ Low humidity alarm”/“ High humidity alarm”

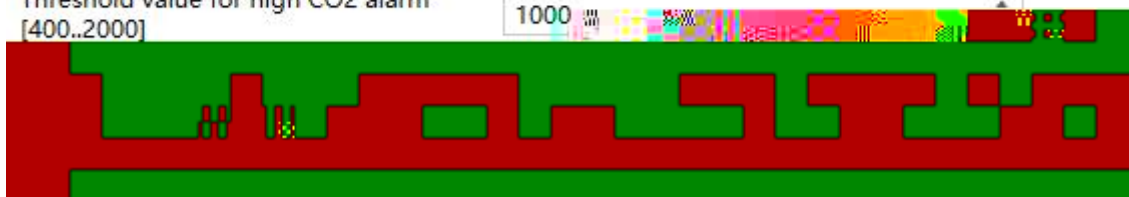
Respond after change

“ Low humidity alarm”/“ High humidity alarm”

“Respond after read only”

“Respond after change”

CO2 calibration	0	▼	ppm
Send CO2 when the result change	50	▼	ppm
Cyclically send CO2 [0..255,0=inactive]	10	▲▼	min
Report error when sensor failure	☒		
Send alarm telegram for low/high CO2	Respond after read only ▼		
Threshold value for low CO2 alarm [400..2000]	500	▲▼	ppm
Threshold value for high CO2 alarm [400..2000]	1000	▲▼	



5.3.3 "CO2 sensor"

CO2

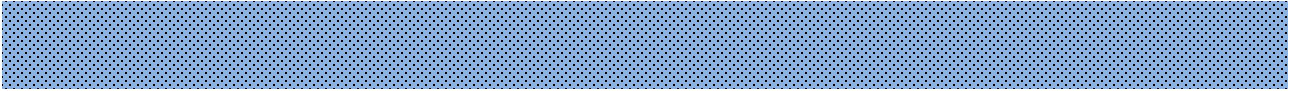
CO2

CO2

CO2

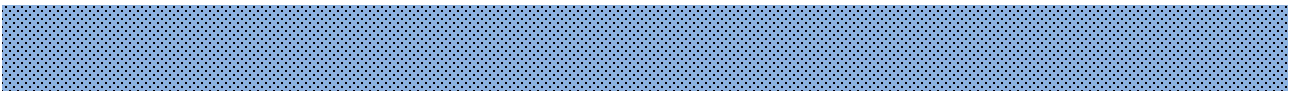
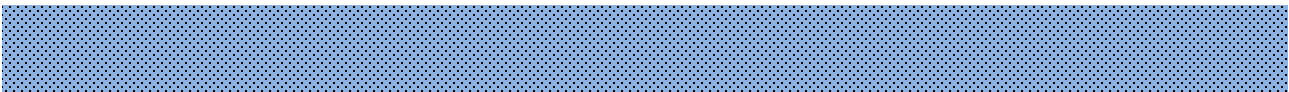
CO2

Disable



CO2

0



/ CO2

No respond

Respond after read only

“ Low CO2 alarm”/“ High CO2 alarm”

Respond after change

“ Low CO2 alarm”/“ High CO2 alarm”

“Respond after read only”

“Respond after change”

CO2

CO2

No respond

Respond after read only

“ PM2.5 alarm”

Respond after change

“ PM2.5 alarm”

“Respond after read only”

“Respond after change”

PM2.5

PM2.5

PM2.5

PM10 calibration	0	ug/m3
Send PM10 when the result change by	50	ug/m3
Cyclically send PM10 [0...255,0=inactive]	10	min
Report error when sensor failure	☒	
Send alarm telegram for PM10	Respond after read only	
Threshold value for PM10 alarm [1..999]	75	ug/m3

5.3.5 "PM10 sensor"

PM10

PM10

PM10

PM10

PM10

0

PM10

0

PM10

No respond

Respond after read only

“ PM10 alarm”

Respond after change

“ PM10 alarm”

“Respond after read only”

“Respond after change”

PM10

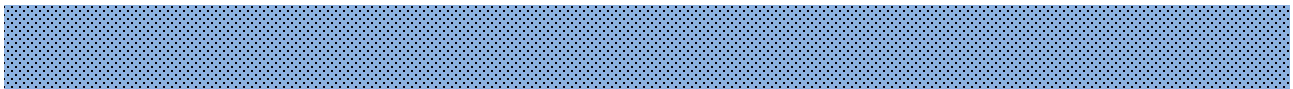
PM10

PM10

TVOC = Value * Factor

Factor	User defined ▼	
User defined (Set the factor value as average molecular mass ÷ 22.4)	0.1	
TVOC calibration	0	ug/m3
Send TVOC when the result change by	50	ug/m3
Cyclically send TVOC [0...255,0=inactive]	10	min
Report error when sensor failure	☐	
Send alarm telegram for TVOC	Respond after read only ▼	
Threshold value for TVOC alarm [1..3000]	450	ug/m3

5.3.6 "TVOC sensor"



ppb

TVOC

µg/m²

"Object datatype of TVOC"

"Float value in ug/m3(DPT_9.030)"

TVOC

2.5(indoor)

TVOC

56g/mol

2.9(outdoor)

TVOC

65g/mol

4.16(industrial)

TVOC

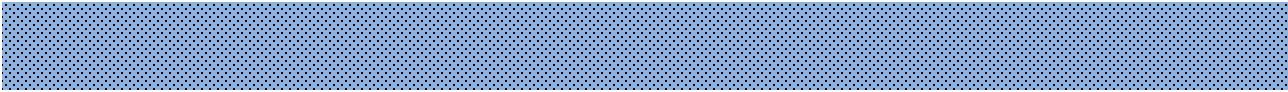
93g/mol

User defined

“User defined”

TVOC

ö

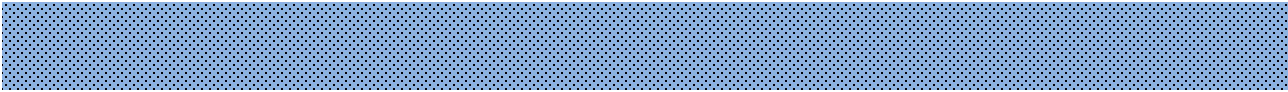


TVOC

TVOC

TVOC

[

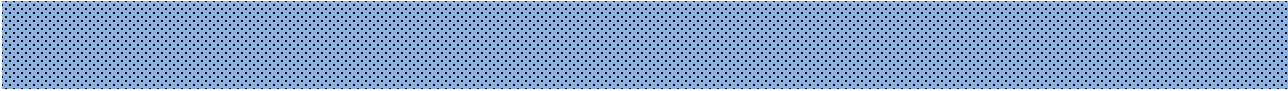


TVOC

TVOC

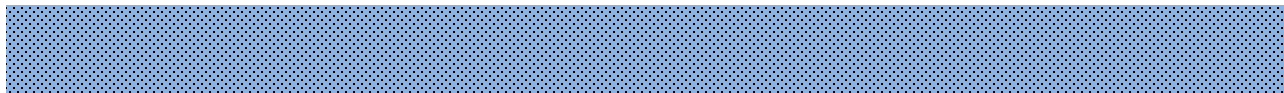
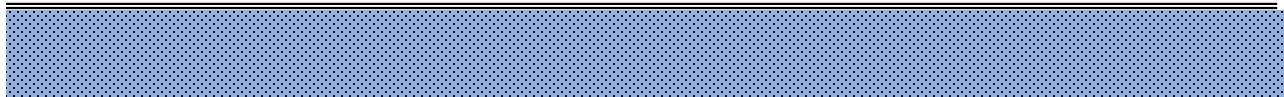
0

[



TVOC

0



TVOC

No respond

Respond after read only

“TVOC alarm”

Respond after change

“TVOC alarm”

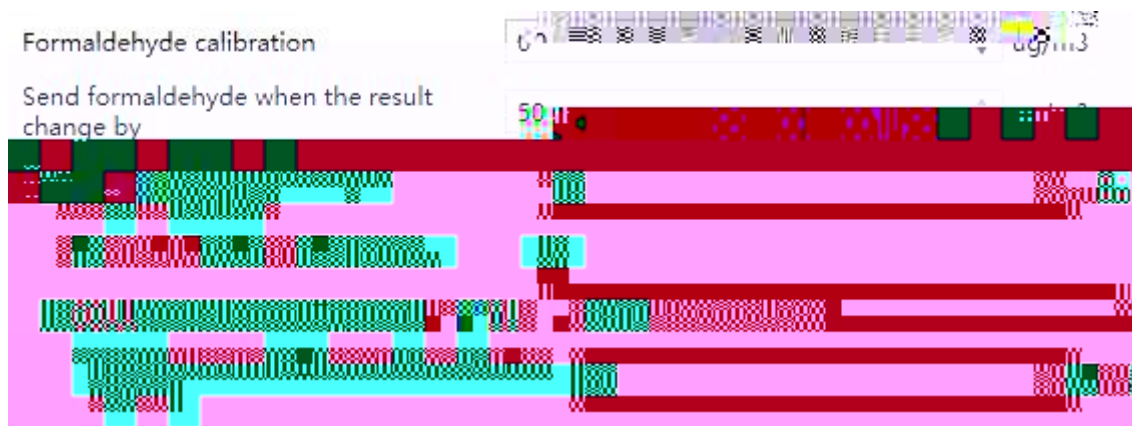
“Respond after read only”

“Respond after change”

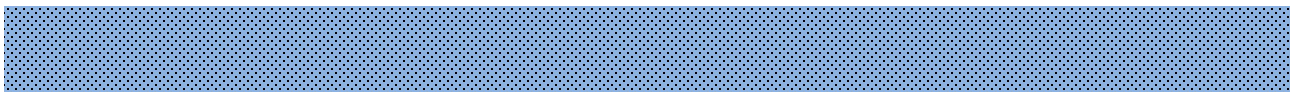
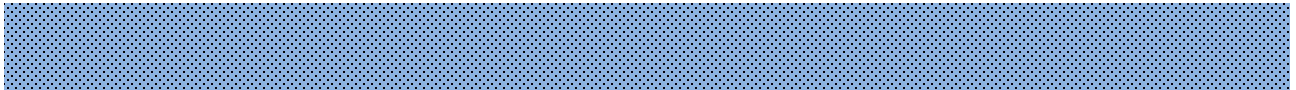
TVOC

TVOC

TVOC

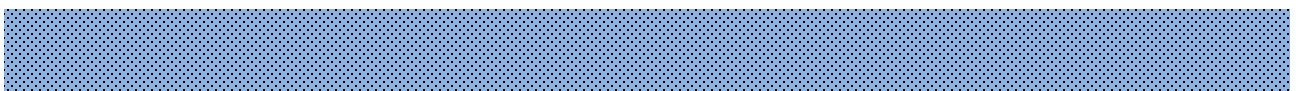


5.3.7 "Formaldehyde sensor"

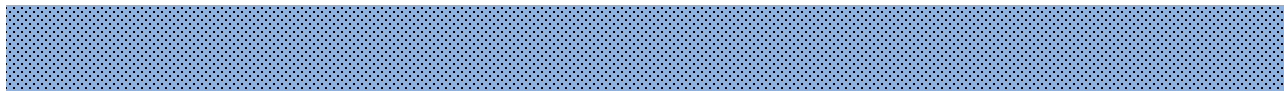
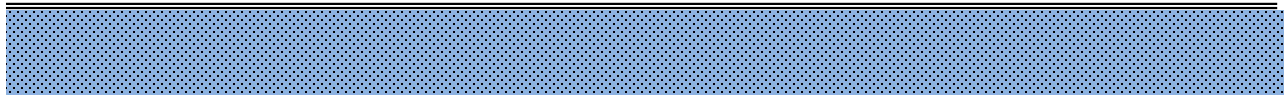


0

[



0



No respond

Respond after read only

“ Formaldehyde alarm”

Respond after change

“ Formaldehyde alarm”

“Respond after read only”

“Respond after change”

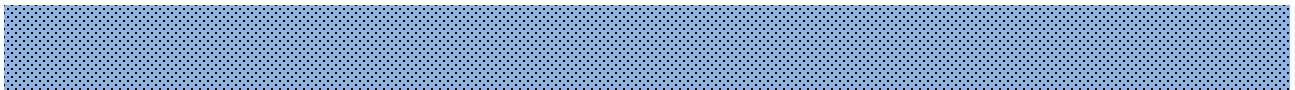
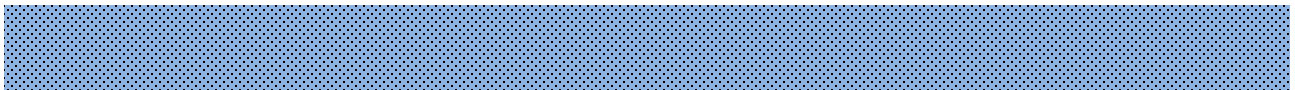
[

Brightness calibration lux

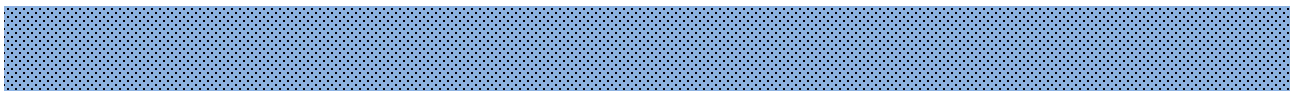
Send brightness when the result change by

Cyclically send brightness [0...255,0=inactive] min

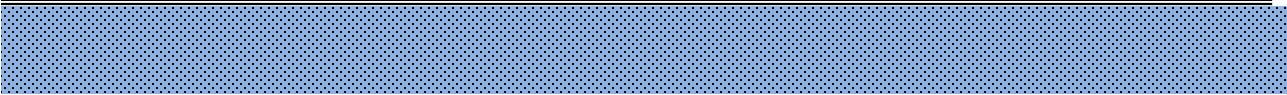
5.3.8 "Brightness sensor"



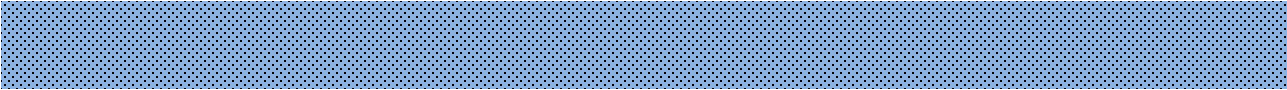
Disable



0



“Brightness correction[-500...500]”



-

-

5.4.1 5.4.7

AQI

AQI

Disable

AQI

0

AQI

No respond

Respond after read only

“AQI

alarm”

Respond after change

“ AQI alarm”

“Respond after read only”

“Respond after change”

AQI

AQI

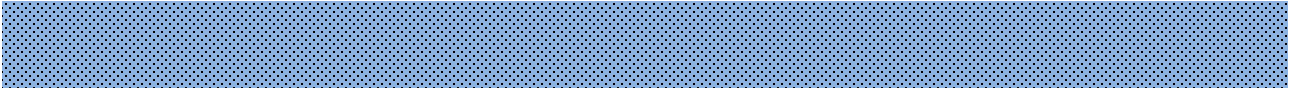
AQI

AQI

5.4.1.1

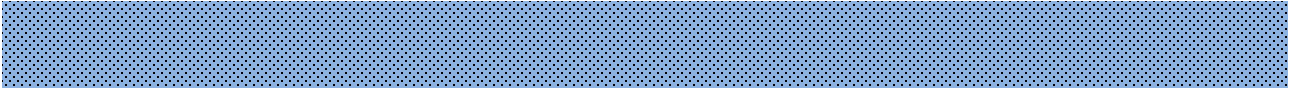
Control type	1bit
Cyclically send output value [0..255,0=inactive]	0 min
Hysteresis threshold value in +/- [10..100]	50
Threshold value 1 for level 1	11
If AQI value < threshold value 1, send	OFF
If AQI value >= threshold value 1, send	ON
Threshold value 2 for level 2	51

5.4.1.1 “Output”

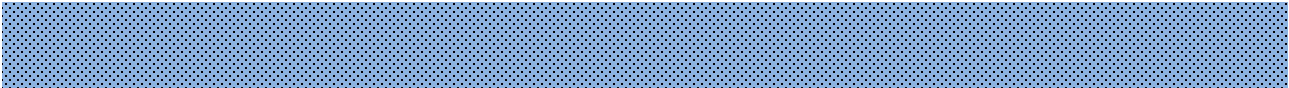


“1byte”

1byte



0



50

350

400

+

300

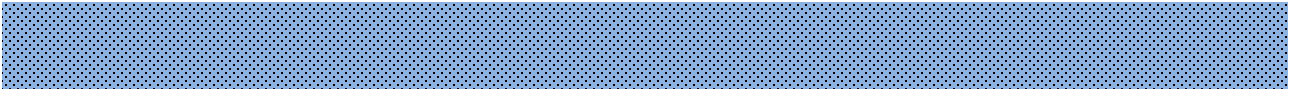
-

AQI

300~400

300

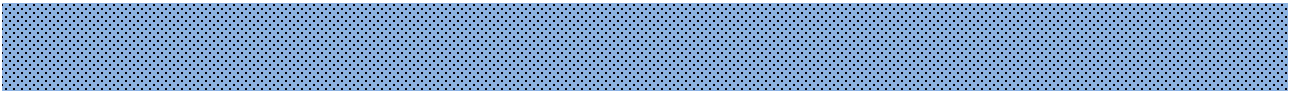
()400



“Control type”

“1byte”

“3byte(RGB)”



x x AQI 6 1bit 6

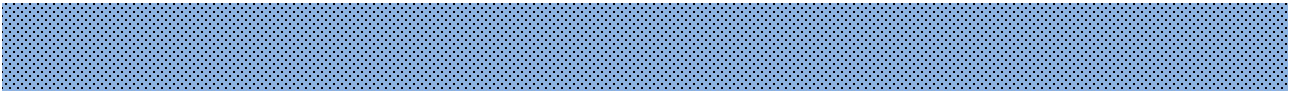
Threshold value 1 for level 1

If AQI value < threshold value 1,
send

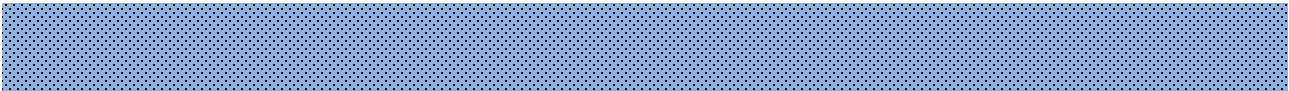
Nothing

If AQI value >= threshold value 1,
send

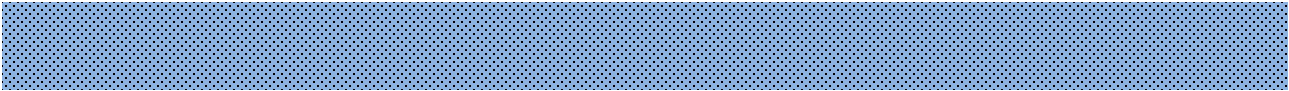
ON



AQI x



AQI x



1 AQI 1 2 1

1

2 AQI

2

3

3 AQI

3

4

4 AQI

4

5

5 AQI

5

6

Threshold value 1 (Level 1<->Level 2)

66

Threshold value 2 (Level 2<->Level 3)

51

Threshold value 3 (Level 3<->Level 4)

101

Threshold value 4 (Level 4<->Level 5)

151

Threshold value 5 (Level 5<->Level 6)

201

1~5

AQI

"Send value"

AQI

CO2 level function	4 levels
Reference internal sensor	☒
Number of reference external sensor	3
Calculation type	Weight average
Weighting of internal sensor	50 %
Weighting of external sensor 1	20 %
Weighting of external sensor 2	20 %
Weighting of external sensor 3	10 %



5.4.2 "CO2 Level"

CO2

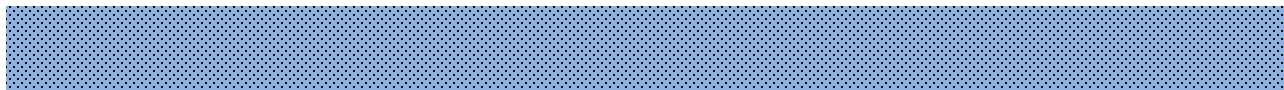
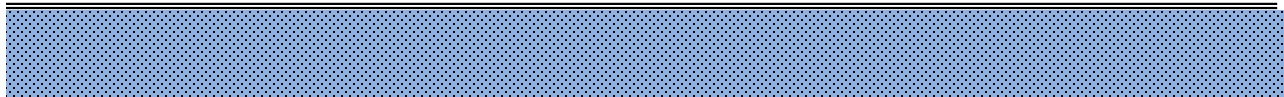
5.4.2.1

CO2

CO2

/

3



2

2

CO2

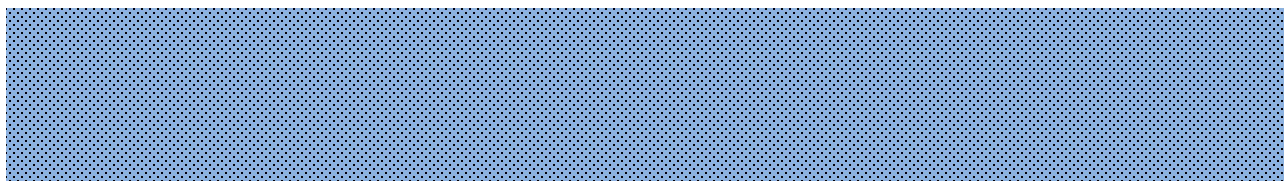
Average

Weight average

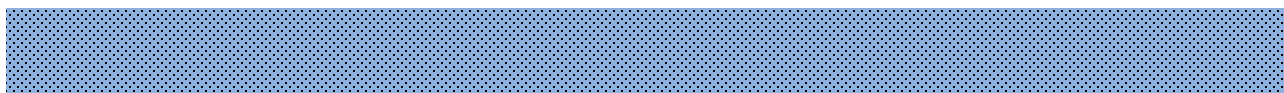
CO2

Minimum value

Maximum value



CO2



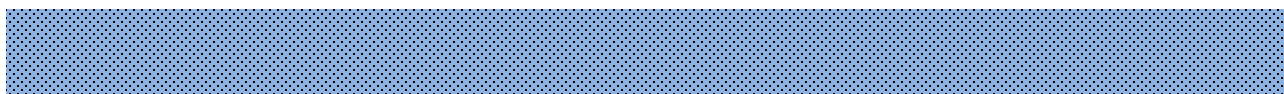
2

2

CO2

CO2

Disable



2

2

CO2

0

Control type 1bit

Cyclically send output value
[0..255,0=inactive] 0 min

Hysteresis threshold value in +/- [50..300] 50 ppm

Threshold value 1 for level 1 350 ppm

If CO2 value < threshold value 1, send OFF

If CO2 value >= threshold value 1, send ON

If sensor failure, send Nothing

Threshold value 2 for level 2 450 ppm

If CO2 value < threshold value 2, send OFF

If CO2 value >= threshold value 2, send ON

If sensor failure, send Nothing

5.4.2.1 "Output"

"Control type"

"1byte"

1byte

0

50ppm 350ppm 400ppm +
300ppm - CO2 300~400ppm
300ppm ()400ppm

“Control type” “1byte” “3byte(RGB)”

x x CO2 4 1bit 4

Threshold value 1 (Level 1<->Level 2) 500 ppm

Threshold value 2 (Level 2<->Level 3) 450

CO2

x

CO2

x

1

CO2

1

2

CO2

1

1

2

CO2

2

3

3

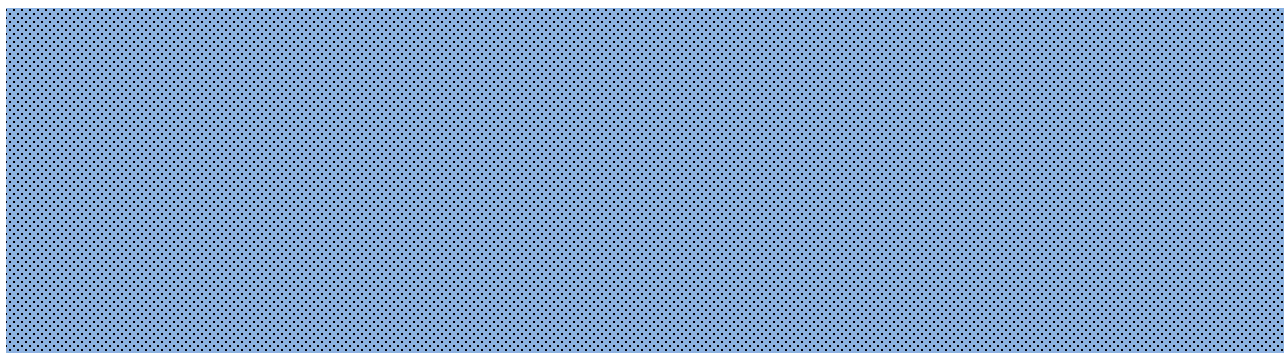
CO2

3

4

Threshold value 1 (Level 1<->Level 2)	450	ppm
Threshold value 2 (Level 2<->Level 3)	450	ppm
Threshold value 3 (Level 3<->Level 4)	1000	ppm

1~3



CO2

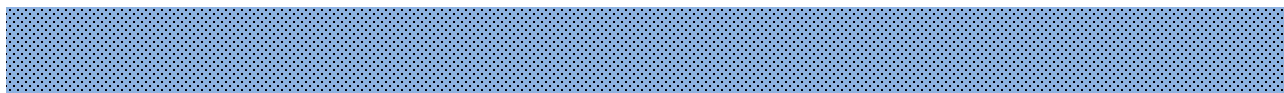
"Send value"

CO2

"Send additional alarm message"

CO2

14



“Send value”

Relative humidity level function	4 levels
Reference internal sensor	☒
Number of reference external sensor	3
Calculation type	Weight average
Weighting of internal sensor	50 %
Weighting of external sensor 1	20 %
Weighting of external sensor 2	20 %
Weighting of external sensor 3	10 %
Time period for request external sensor [0...255,0=inactive]	10 min
Send value when the result change by	5 %
Cyclically send value [0..255,0=inactive]	0 min

5.4.3 "Relative humidity Level"

5.4.3.1

2 2

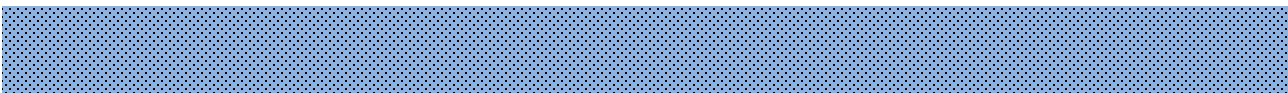
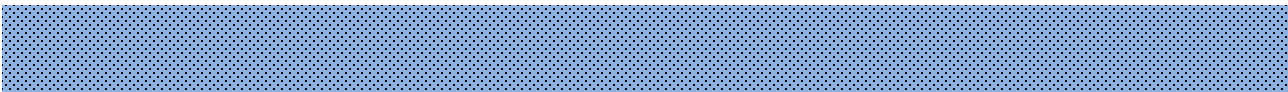
Average

Weight average

Minimum value

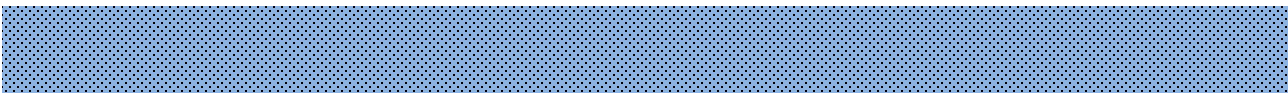
Maximum value

“Weight average”



2 2

Disable



2 2

0

Control type	1bit
Cyclically send output value [0..255,0=inactive]	0 min
Hysteresis threshold value in +/- [1..10]	5 %
Threshold value 1 for level 1	20 %
If humidity value < threshold value 1, send	OFF
If humidity value >= threshold value 1, send	ON
If sensor failure, send	Nothing
Threshold value 2 for level 2	40 %
If humidity value < threshold value 2, send	OFF
If humidity value >= threshold value 2, send	ON
If sensor failure, send	Nothing

5.4.3.1 "Output"

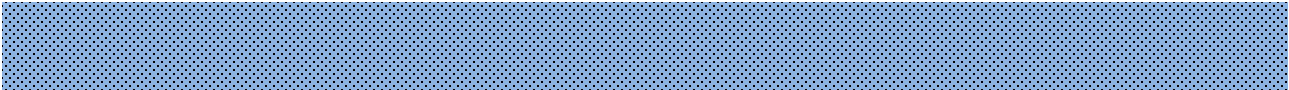
"Control type"

"1byte"

1byte



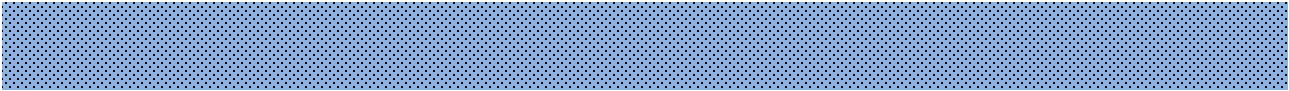
0



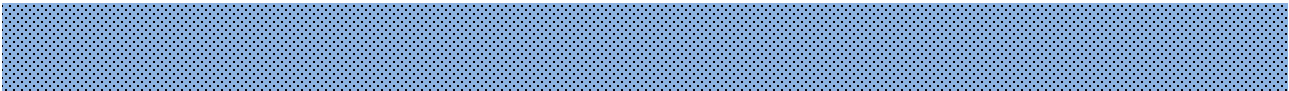
5% 20% 25% + 15%

- 15%~25%

15% ()25%



“Control type” “1byte” “3byte(RGB)”



x x 4 1bit 4

KNX/EIB

2

2

3

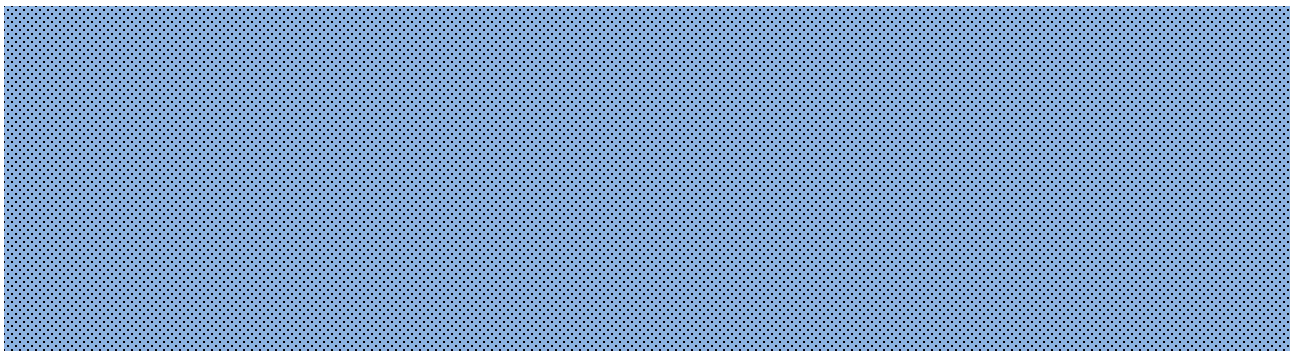
3

3

4



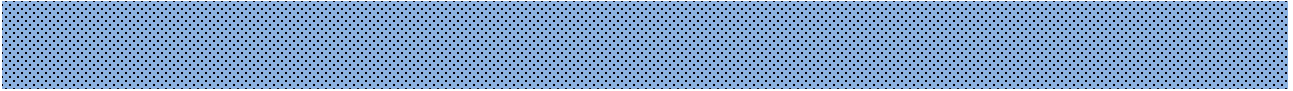
1~3



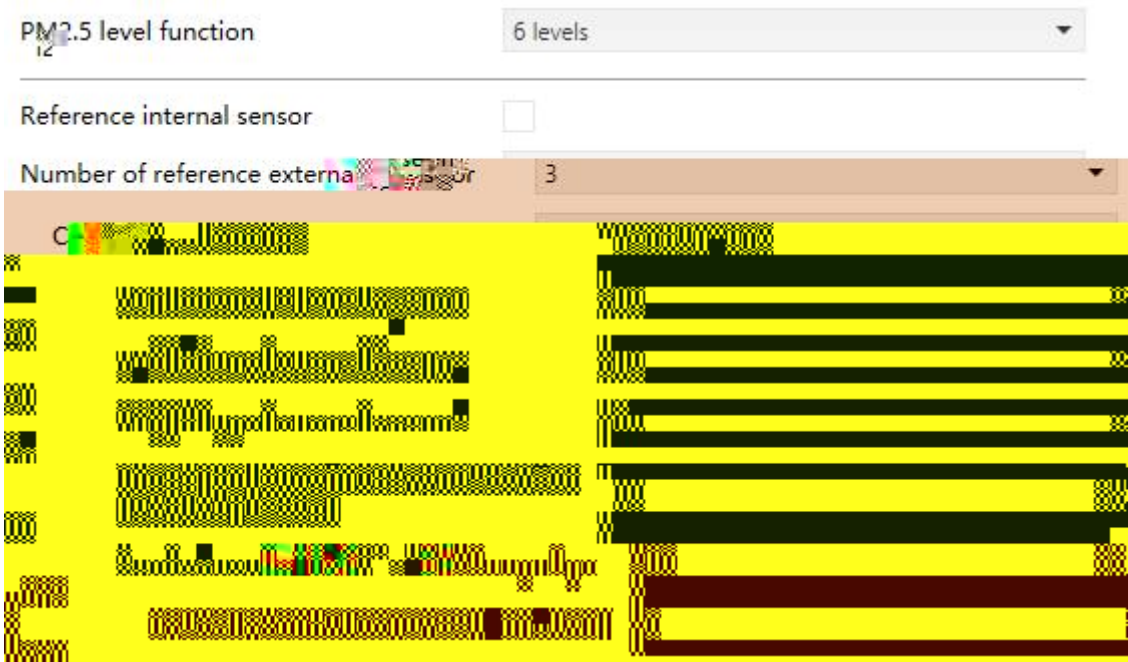
"Send value"

"Send additional alarm message"

14



"Send value"



5.4.4 "PM2.5 Level"

PM2.5

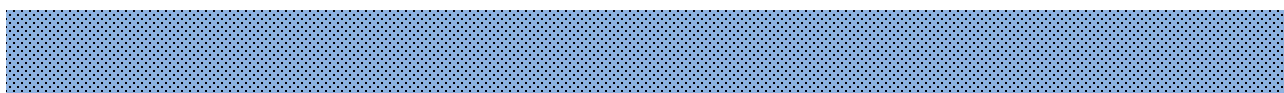
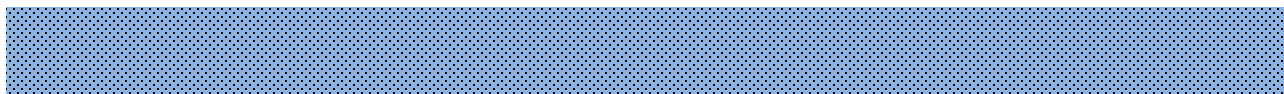
5.4.4.1

PM2.5

PM2.5

/

3



2

2

PM2.5

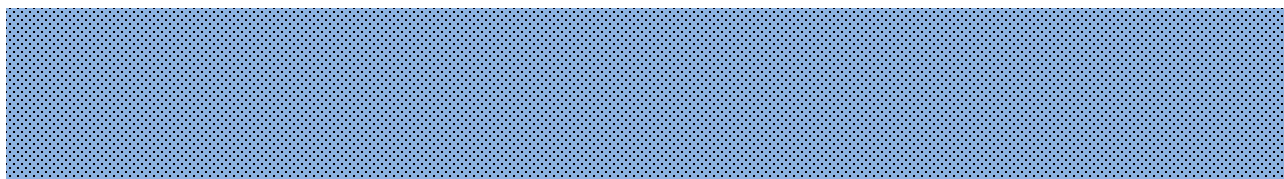
Average

Weight average

PM2.5

Minimum value

Maximum value



"Weight average"

PM2.5

GVS

K-BUS

KNX/EIB

eP ‡

PM2.5

0 0 0

0 2 0 2

PM2.5

PM2.5

Diě / j" 0 0 0

Control type	1bit	
Cyclically send output value		min [0..255, 0=inactive]
old value in +/- [0..50]	10	ug/m3
for level 1	20	ug/m3
< threshold value 1,	OFF	
>= threshold value 1,	ON	
, send	Nothing	
for level 2	40	ug/m3
value 2,	OFF	
5 value >= threshold value 2,	ON	
or failure, send	Nothing	

5.4.4.1 "Output"

"1byte"

1byte

0

50ug/m3		350ug/m3		400ug/m3	+
300ug/m3	-	PM2.5		300~400ug/m3	
		300ug/m3	(	)400ug/m3	

“Control type” “1byte” “3byte(RGB)”

x	x	PM2.5	6	1bit	6
---	---	-------	---	------	---

Threshold value 1 for level 1

50 ug/m3

If PM2.5 value < threshold value 1,
send

OFF

If PM2.5 value >= threshold value 1,
send

ON

If sensor failure, send

Nothing

PM2.5 x

PM2.5 / x

1 PM2.5

1

2

PM2.5

1

1

2

PM2.5

2

3

3

PM2.5

3

4

4

PM2.5

4

5

25

PM2.5

5

6

Threshold value 1 (Level 1 <-> Level 2)

50

ug/m3

Threshold value 2 (Level 2 <-> Level 3)

40

ug/m3

Threshold value 3 (Level 3 <-> Level 4)

90

1~5

PM2.5

"Send value"

PM2.5

"Send additional alarm message"

PM2.5

14

"Send value"

PM10 level function	4 levels
Reference internal sensor	☒
Number of reference external sensor	3
Calculation type	Weight average
Weighting of internal sensor	50 %
Weighting of external sensor 1	20 %
Weighting of external sensor 2	20 %
Weighting of external sensor 3	10 %
Time period for request external sensor [0..255,0=inactive]	10
Send value when the result change by	50 ug/m³
Cyclically send value [0..255,0=inactive]	0

5.4.5 “PM10 Level”

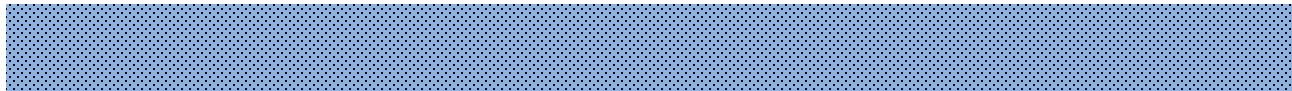
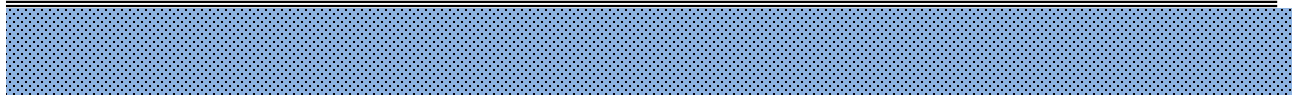
PM10

5.4.5.1

PM10

PM10

/



2

2

PM10

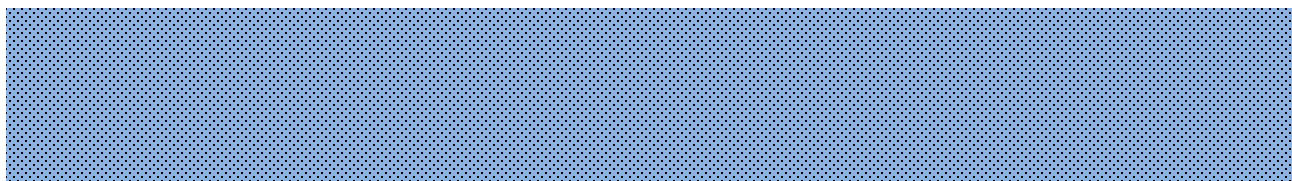
Average

Weight average

PM10

Minimum value

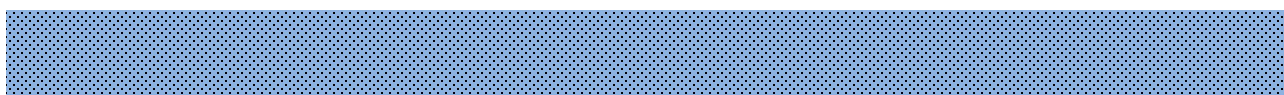
Maximum value



“Weight average”

PM10

PM10



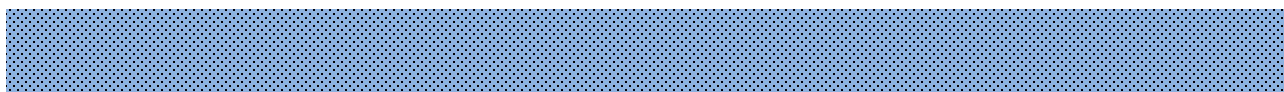
2

2

PM10

PM10

Disable



2

2

PM10

0

Control type

1bit

Cyclically send output value
[0..255,0=inactive]

0

min

Hysteresis threshold value in +/- [0..255]

0

ug/m3

Threshold value 1 for level 1

50

ug/m3

If PM10 value < threshold value 1, send

OFF

If PM10 value >= threshold value 1, send

ON

If sensor failure, send

Nothing

Threshold value 2 for level 2

100

ug/m3

If PM10 value < threshold value 2, send

OFF

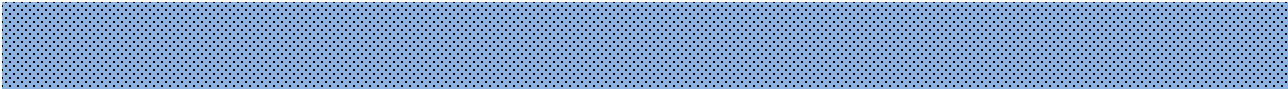
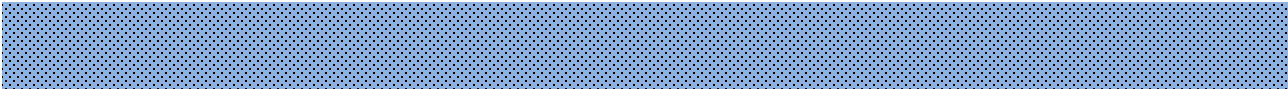
If PM10 value >= threshold value 2, send

ON

If sensor failure, send

Nothing

5.4.5.1 "Output"



"Control type"

"1byte"

1byte

0

50ug/m3		350ug/m3		400ug/m3	+
300ug/m3	-	PM10		300~400ug/m3	
		300ug/m3	(	)400ug/m3	

“Control type” “1byte” “3byte(RGB)”

x	x	PM10	4	1bit	4
---	---	------	---	------	---

Threshold value 1 for level 1

50

%

If humidity value < threshold value 1, send

OFF

If humidity value >= threshold value 1, send

ON

If sensor failure, send

Nothing

PM10x

PM10/x

1PM1012PM10

11

2 PM10

2

3

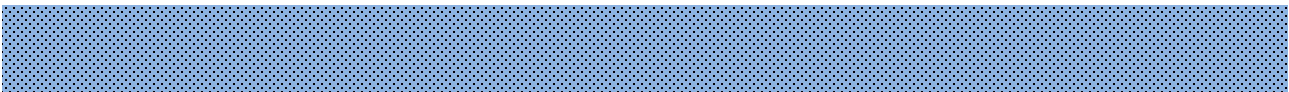
3 PM10

□ □ □ □ □ 3 □ □

4

Threshold value 1 (Level 1<->Level 2)	50	ug/m3
Threshold value 2 (Level 2<->Level 3)	40	ug/m3
Threshold value 3 (Level 3<->Level 4)	150	ug/m3

1~3



KNX/EIB

TVOC level function	4 levels	
Reference internal sensor	☒	
Number of reference external sensor	3	
Calculation type	Weight average	
Weighting of internal sensor	50	%
Weighting of external sensor 1	20	%
Weighting of external sensor 2	20	%
Weighting of external sensor 3	10	%
Time period for request external sensor [0...255,0=inactive]	10	min
Send value when the result change	50	ug/m ³
Cyclically send value [0..255,0=inactive]	0	min

5.4.6 "TVOC Level"

TVOC

5.4.6.1

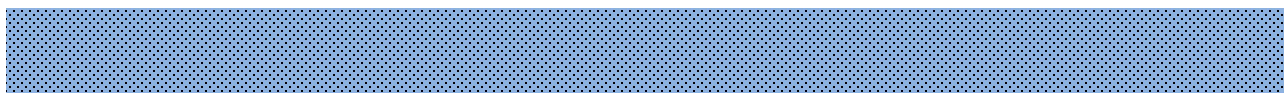
TVOC

TVOC

/

KNX/E

TVOC



2

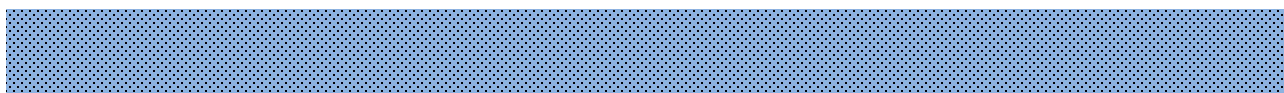
2

TVOC

TVOC

Disable

[



2

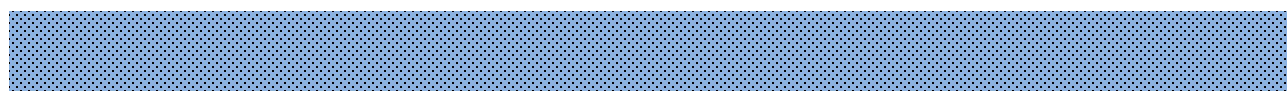
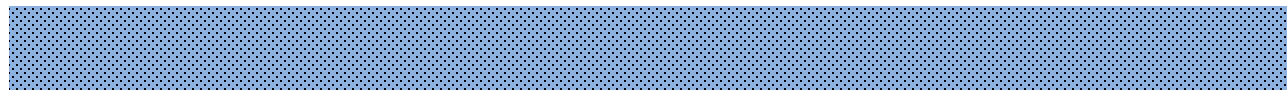
2

TVOC

0



5.4.6.1 "Output"



Control type

1byte

1byte

0

100ug/m3		350ug/m3		450ug/m3	+
250ug/m3	-	TVOC		250~450ug/m3	
		250ug/m3	(	)450ug/m3	

"Control type"	"1byte"	"3byte(RGB)"
----------------	---------	--------------

x	x	TVOC	4	1bit	4
---	---	------	---	------	---

Threshold value 2 for level 2 ppm

```
if TVOC value < 1 then
  send
endif
if TVOC value > 4 threshold value 2
  send
endif
threshold value send
```

TVOC x

TVOC / x

1 TVOC 1 2 TVOC

1 1

2 TVOC

2

3

3 TVOC

3

4

Threshold value 1 (Level 1<->Level 2)

0.5

ppm

Threshold value 2 (Level 2<->Level 3)

0.1

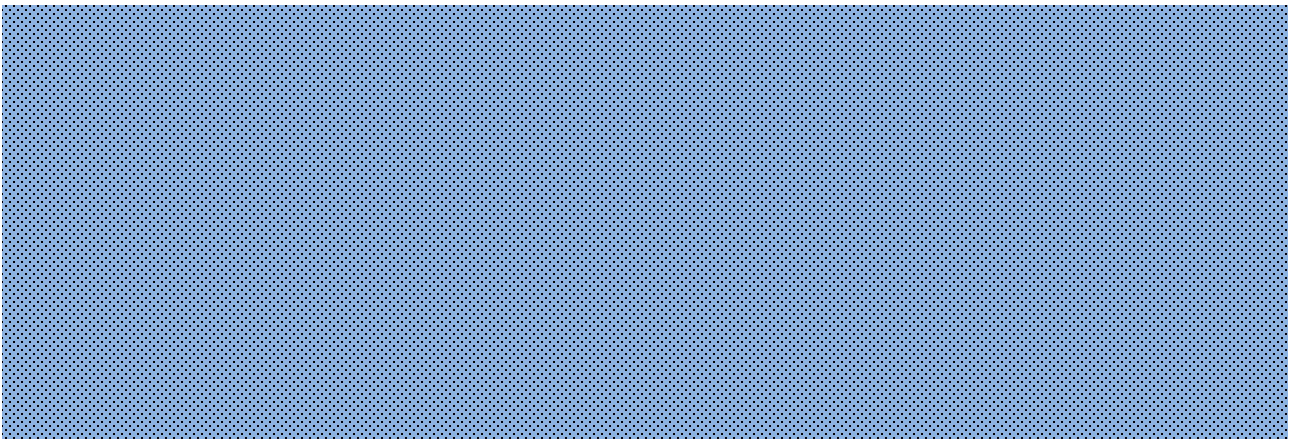
ppm

Threshold value 3 (Level 3<->Level 4)

0.5

ppm

1~3



TVOC

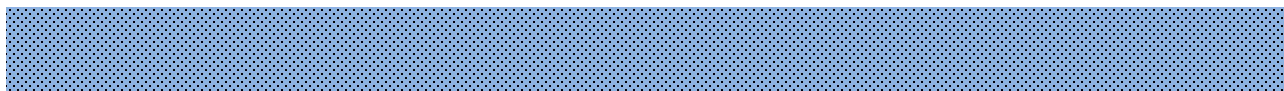
"Send value"

TVOC

"Send additional alarm message"

TVOC

14



"Send value"

Formaldehyde level function	4 levels	
Reference internal sensor	☒	
Number of reference external sensor	3	
Calculation type	Weight average	
Weighting of internal sensor	50	%
Weighting of external sensor 1	20	%
Weighting of external sensor 2	20	%
Weighting of external sensor 3	10	%
Time period for request external sensor [0...255,0=inactive]	10	min
Send value when the result change by	50	µg/m³
Cyclically send value [0..255,0=inactive]	0	min

5.4.7 "Formaldehyde Level"

5.4.7.1

2 2

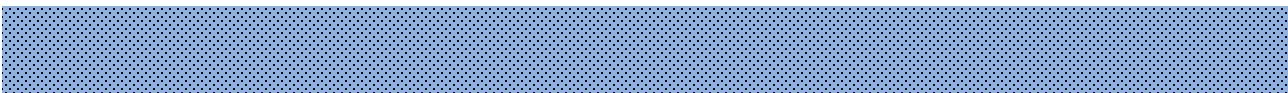
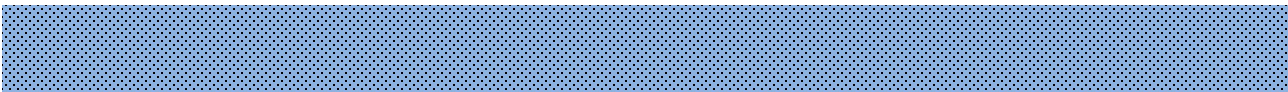
Average

Weight average

Minimum value

Maximum value

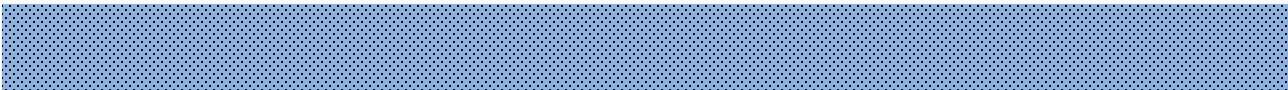
Weight average"



2 2

Disable

[

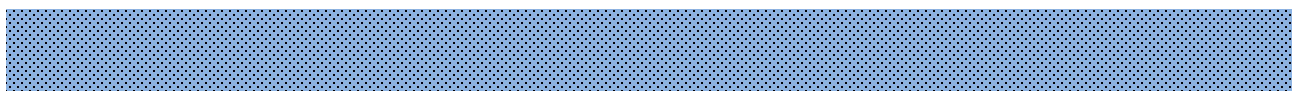
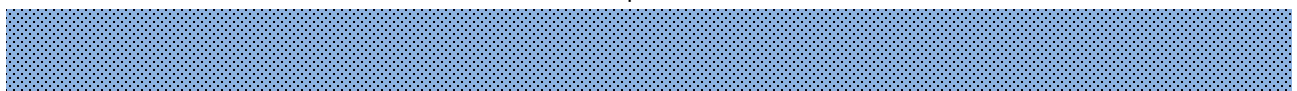


2 2

0

Control type	1bit	
Cyclically send output   0.00	0	min
Hysteresis threshold value in +/- (0.01, 0.03)	0.01	ppm
Threshold value 1 for level 1	0.02	ppm
if Formaldehyde value < threshold value 1 send	0.00	▼
if Formaldehyde value >= threshold value 1 send	0.01	▼
if sensor failure send	notting	▼
Threshold value 2 for level 2	0.04	ppm
if Formaldehyde value < threshold value 2 send	0.00	▼
if Formaldehyde value >= threshold value 2 send	0.01	▼
if sensor failure send	notting	▼

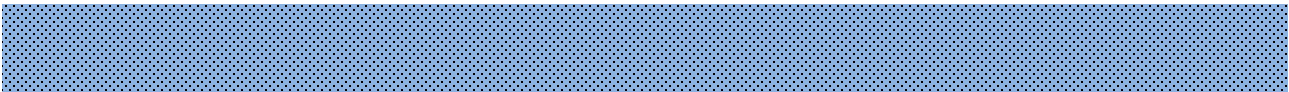
5.4.7.1 "Output"



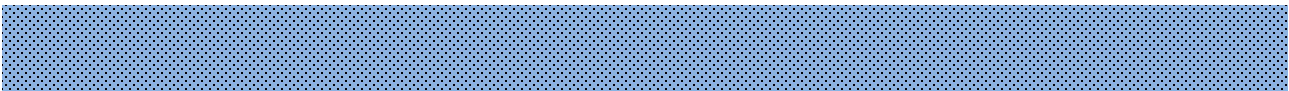
"Control type"

"1byte"

1byte



0

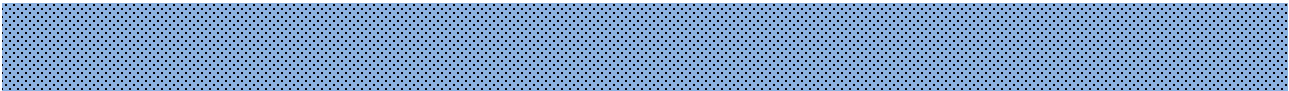


[

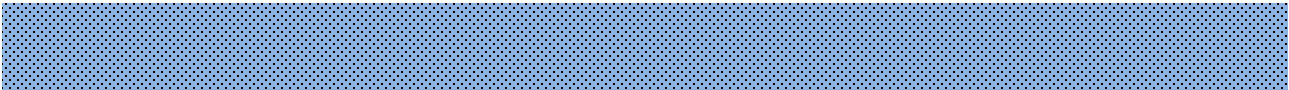
50ug/m3 350ug/m3 400ug/m3 +

300ug/m3 - 300~400ug/m3

300ug/m3 ()400ug/m3



“Control type” “1byte” “3byte(RGB)”



x x 4 1bit 4

Threshold 1 for level 1 ppm

If Form

x

/ x

1

1

2

1

1

2

2

3

3

3

4

Threshold value 1 (Level 1<->Level 2)

0.1

ppm

Threshold value 2 (Level 2<->Level 3)

0.04

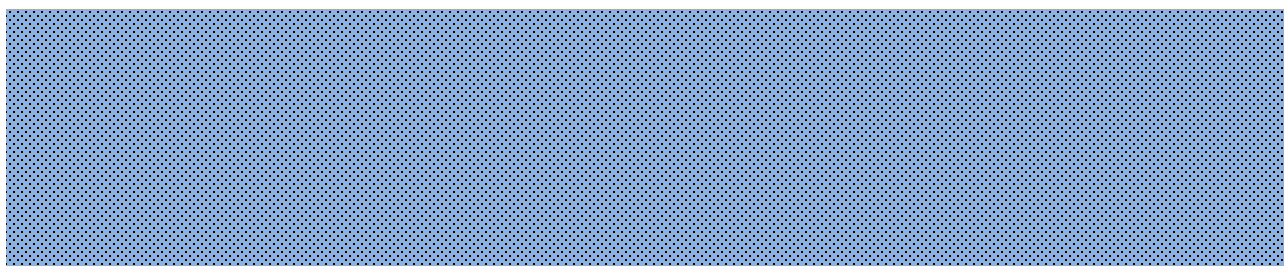
ppm

Threshold value 3 (Level 3<->Level 4)

0.1

ppm

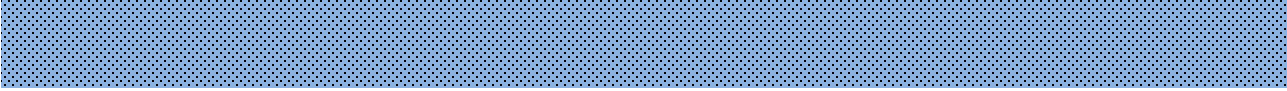
1~3



"Send value"

"Send additional alarm message"

14

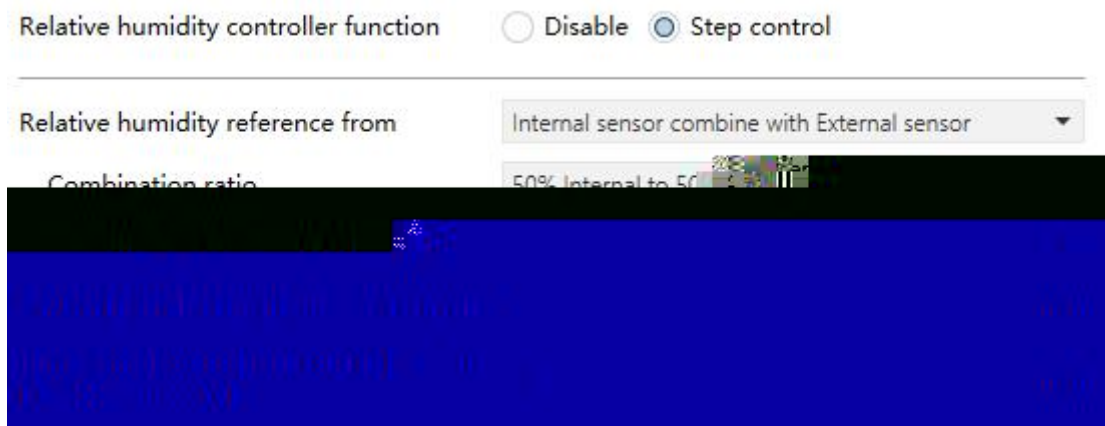


"Send value"

CO2

5.5.1

5.5.2



5.5.1 "Relative humidity controller"

Disable

Step control

"Internal sensor measurement"

5.3.2

“40% Internal to 60% External”

40%

60%

=

×40% +

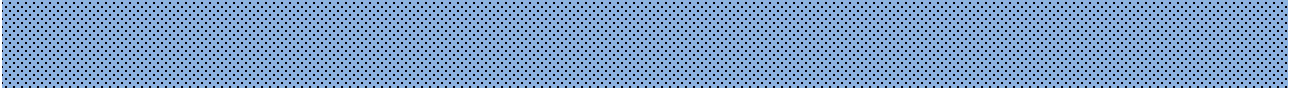
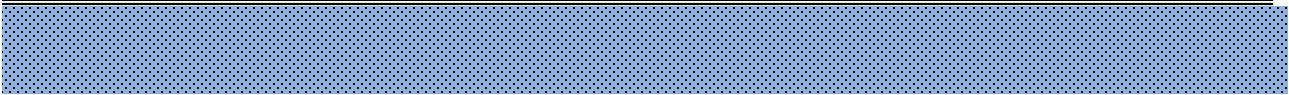
×60%

Disable

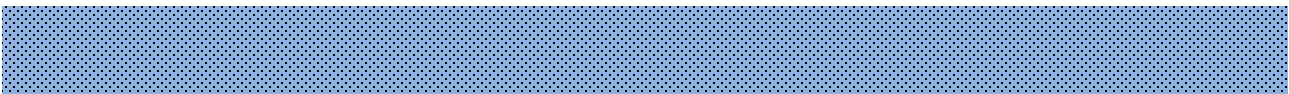
0

Control type	1byte
Object datatype	☒ 1byte percentage value ☐ 1byte unsigned value
Cyclically send control value [0..255,0=inactive]	0 min
Control value for step 0	0 %
Control value for step 1	33 %
Control value for step 2	67 %
Control value for step 3	100 %
Threshold value 1 (step 0<->step 1)	20 %
Threshold value 2 (step 1<->step 2)	40 %
Threshold value 3 (step 2<->step 3)	50 %
Hysteresis threshold value in +/- [1..10]	5 %
Minimum time step control [0..65535]	0 s
If sensor failure, send	0 %
Stop function	☒
Controller automatically restart after [0..255,0=inactive]	0 min
Behaviour when controller off	☐ Nothing ☒ Send value
Value	0 %

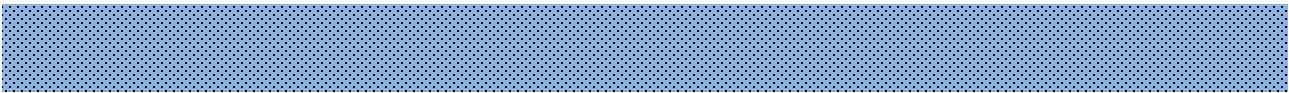
5.5.1.1 "Output"



1byte



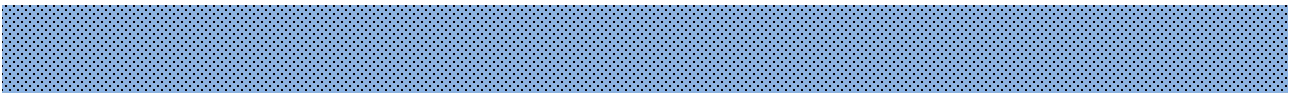
0



1byte

1byte percentage value

1byte unsigned value



1

1

1

1

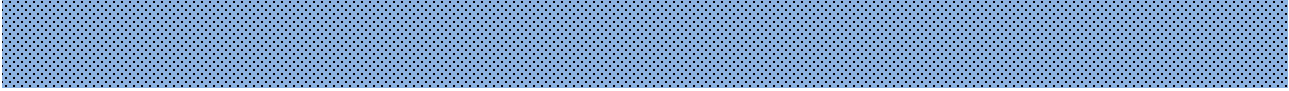
0

2

2

2

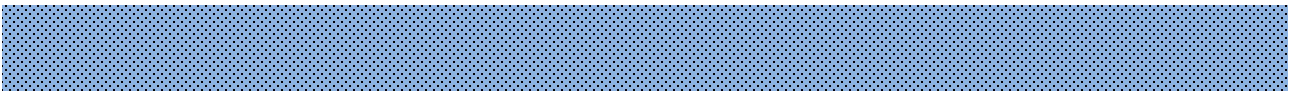
0



1byte

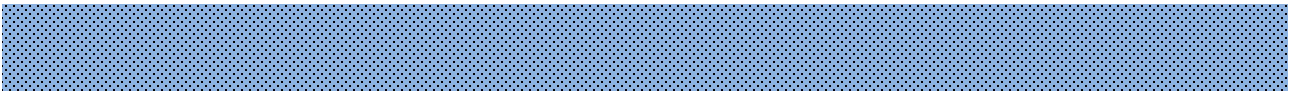
1byte percentage value

1byte unsigned value



1byte

0



off

Nothing

Send value

“Send value”

1byte

“1byte percentage value”

“1byte unsigned value”

CO2 controller function	Step control	▼
CO2 reference from	Internal sensor combine with External sensor	▼
Combination ratio	50% Internal to 50% External	▼
Send value when the result change by	50	▼ ppm
Cyclically send value [0..255,0=inactive]	0	▲ min
Time period for request external sensor [0...255,0=inactive]	10	▲ min

5.5.2 “CO2 controller”

CO2

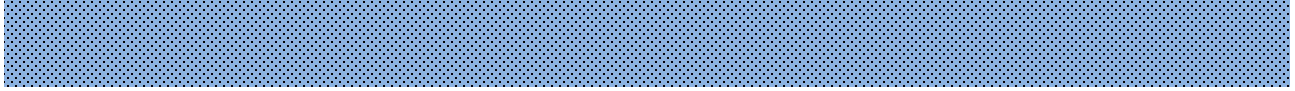
Disable

CO2

Step control

PI control

PI



CO2

CO2

“Internal sensor measurement”

5.3.3

CO2

CO2

“40% Internal to 60% External”

40%

60%

CO2

=

CO2×40%

+

CO2×60%

CO2

CO2

CO2

CO2

Disable

CO2

0

CO2

PI

Control type	1byte
Object datatype	☒ 1byte percentage value ☐ 1byte unsigned
Cyclically send control value [0..255,0=inactive]	0 min
Control value for step 0	0 %
Control value for step 1	33 %
Control value for step 2	67 %
Control value for step 3	100 %
Threshold value 1 (step 0<->step 1)	350 ppm
Threshold value 2 (step 1<->step 2)	450 ppm
Threshold value 3 (step 2<->step 3)	1000 ppm
Hysteresis threshold value in +/- [50..300]	50 ppm
Minimum time in step control [0..65535]	0
If sensor failure, send	0
Stop function	✓
Controller automatically restart after [0..255,0=inactive]	0 min
Behaviour when controller off	Nothing ☐ Send value
Value	0

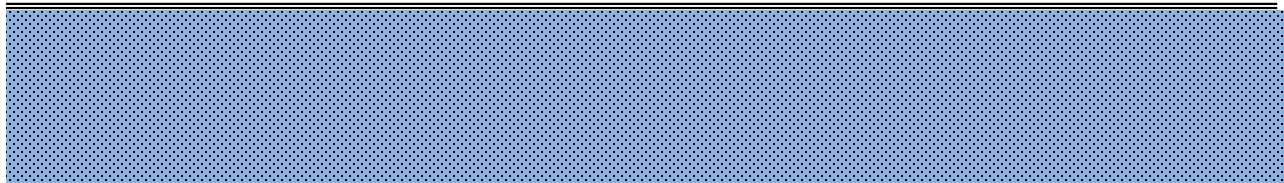
5.5.2.1(1) "Output"-Step control

Control type	1byte	
Object datatype	☒ 1byte percentage value ☐ 1byte unsigned signed value	
Send value when the control value change by [0..100,0=inactive]	5	%
Cyclically send control value [0..255,0=inactive]	0	min
Setpoint CO2 value	500	ppm
Can be changed via bus	☒	
Range	100	ppm
5..240]	15	min
Control value	0	%
Control value	100	%
Lower than minimum	0%=0%, otherwise=Minimum value	
Failure sensor	0	%
Failure sensor	☒	
Automatically restart after [re]	0	min
Controller off	☐ Nothing ☒ Send value	
Controller off	0	%

5.5.2.1(2) "Output"-PI control

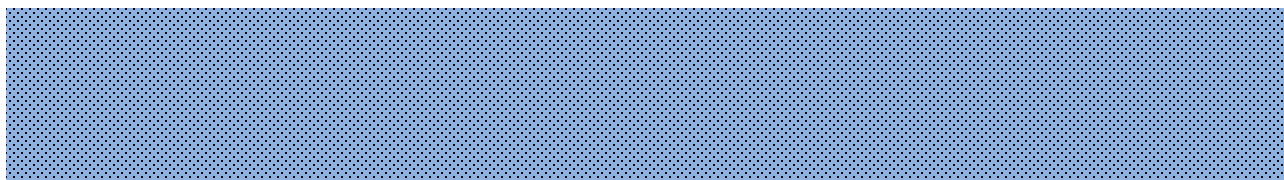
1byte

□



PI

PI

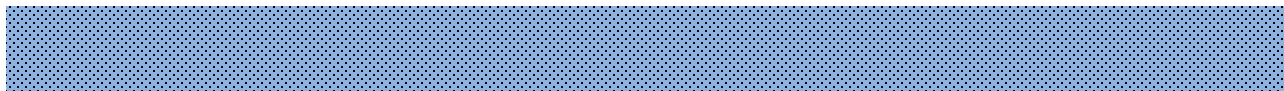


/

1byte

1byte percentage value

1byte unsigned value



1byte

1byte percentage value

0%=0%, otherwise=Minimum value 0%

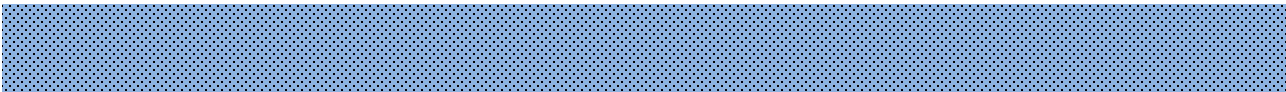
0

To be the minimum value

0%

To be 0%

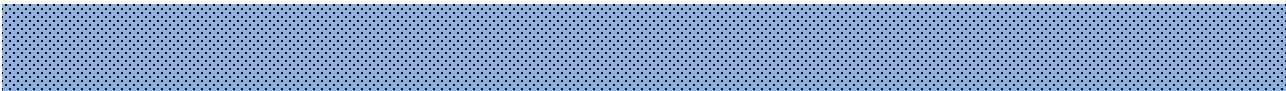
0



1byte

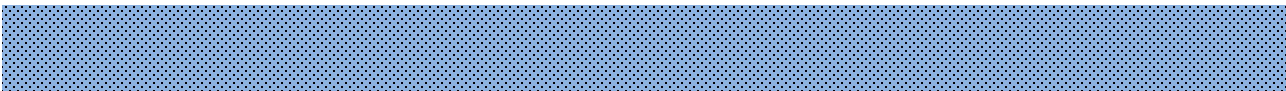
1byte percentage value

1byte unsigned value



1byte

0



off

Nothing

Send value

“Send value”

1byte

“1byte percentage value”

“1byte unsigned value”

Number of presence control

4

5.4 "Presence function"

4

None

Description for presence control

Type of output

disable

Object type for preset value

Object datatype

Preset value

Send preset value

2byte

2byte unsigned value

Temperature value

20

°C

5.6.1 "Presence control x"

30

KNX/EIB

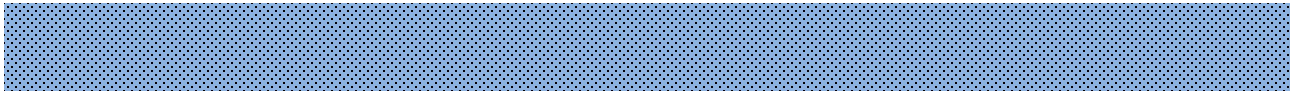
A-B-C D-E-F

Send the value for presence begin (A-B-C)

A-B-C

Send the value for presence end (D-E-F)

D-E-F



No telegram

Send end value after expiration of the follow-up time

D-E-F

D-E-F

Send the value for presence begin (A-B-C)

A-B-C

C

Send the value for presence end (D-E-F)

D-E-F

F

Send preset value

1byte

2byte

“1byte”

“2byte”

“1bit”

“1byte” “1byte unsigned value”

“1byte” “1byte percentage value”

“1byte” “Scene number”

“1byte” “HVAC mode”

“2byte” “2byte unsigned value”

“2byte” “Temperature value”

Begin of presence

If presence is detected, send (A) 1bit

Value ☐ OFF ☒ ON

If presence still is, send (B) 1bit

Value ☐ OFF ☒ ON

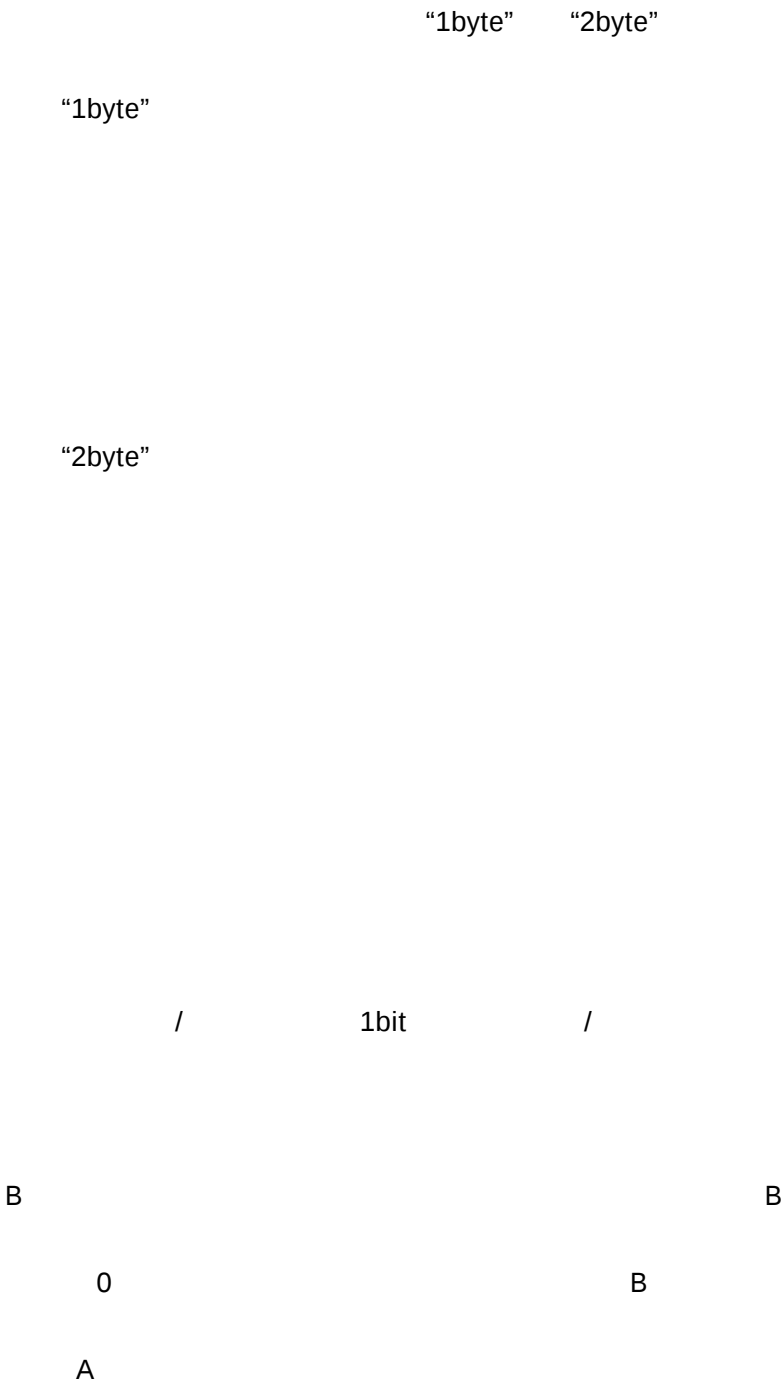
Detect min. delay time for telegram B [0..255,0=inactive] 60

If presence still is, send (C) 1bit

Value ☐ OFF ☒ ON

Detect min. delay time for telegram C [0..255,0=inactive] 60





B

B

E

C

D

CB

DE

DE



In this case, whether the telegram E send or not will depend on the telegram B, while the same concept that D depends on C, please check your application to avoid misunderstanding when telegram missing

3

D / E / F

D

E F

D / E / F

D

E / F

D

No telegram

1byte

2byte

1byte

2byte

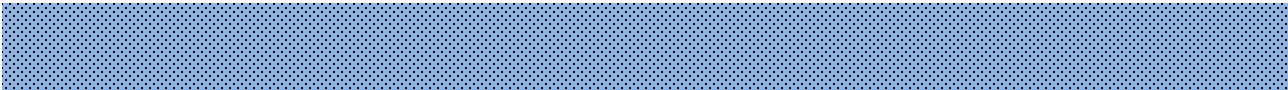
/ 1bit /

E

E

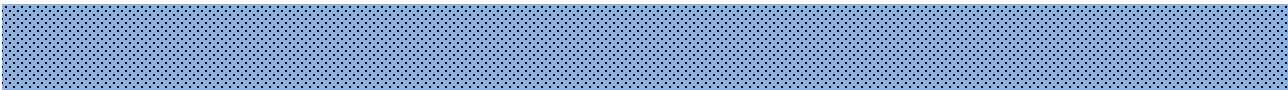
F

F



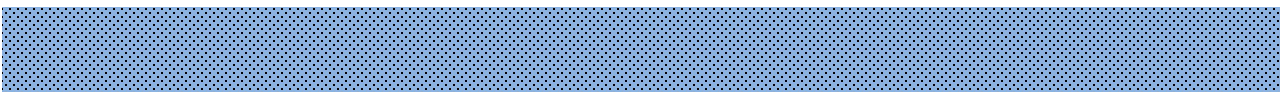
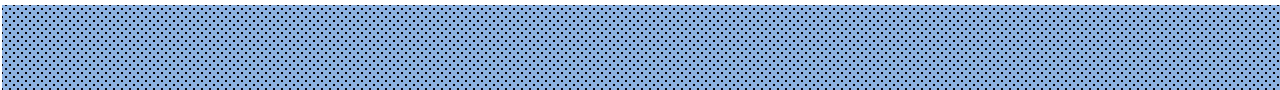
D E F F F

F E E D



OFF

2

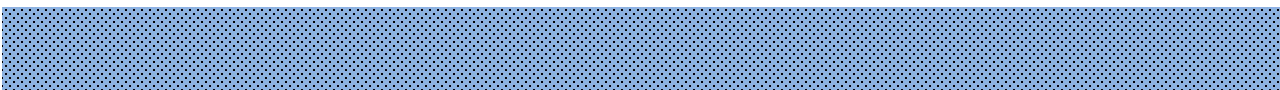
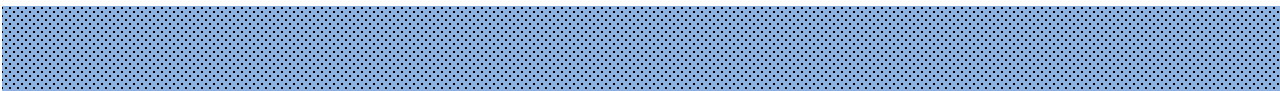


OFF

ON

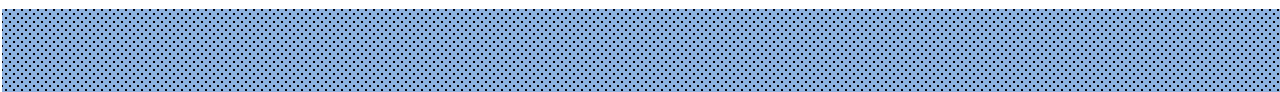


5.6.1.1 (2) "Output" -Slave



ON

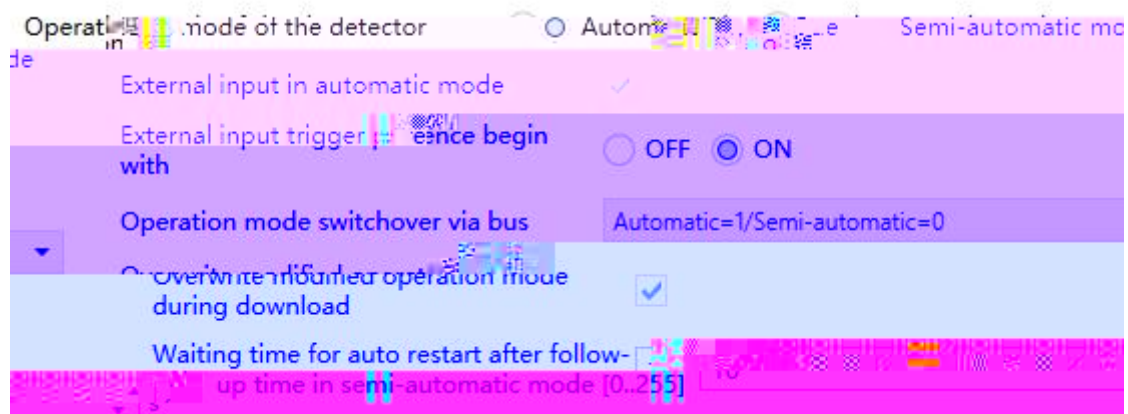
OFF



OFF

OFF

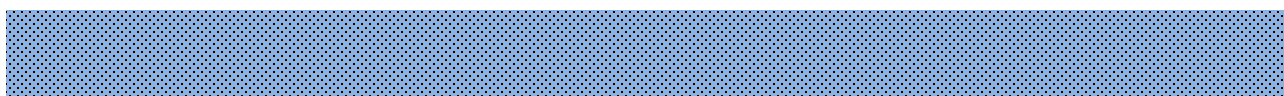
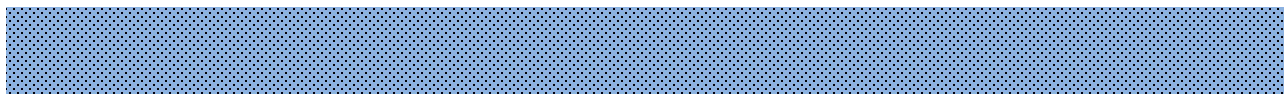
ON



5.6.1.2 "Operation mode"

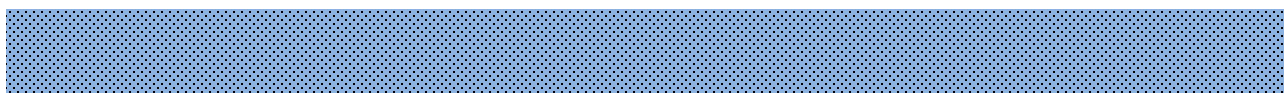
Automatic mode

Semi-automatic mode



-

-

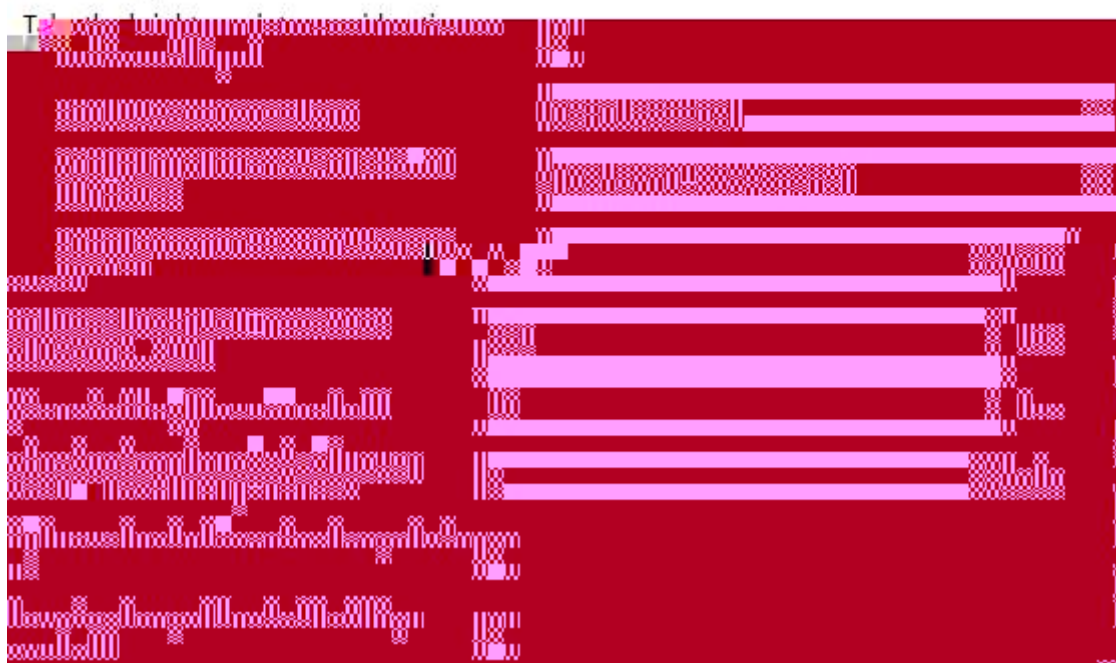


Detector depending on brightness ☒

Detector can be independent of brightness via bus

Disable

Takes the brightness into consideration for slave input ☒



5.6.1.3(1) "Brightness"-Master

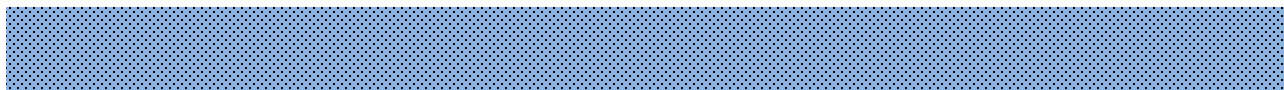
Disable

Depending=1/Independent=0

0

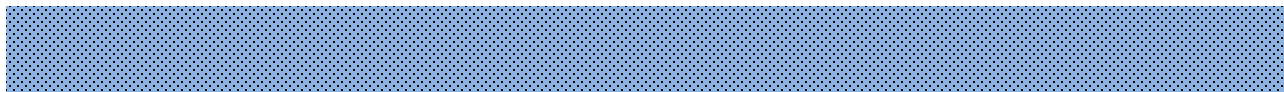
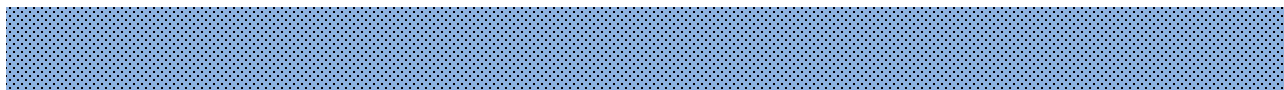
1

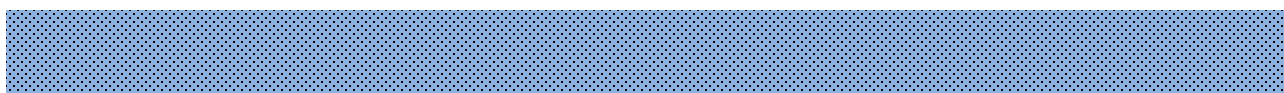
Depending=0/Independent=1



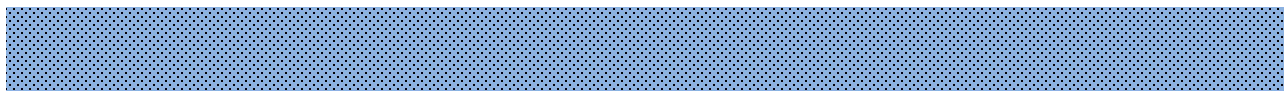
“Input slave”

ON





+



+

Detector depending on brightness	☒
Detector can be independent of brightness via bus	Disable
Brightness reference from	Internal + External
Weighting of internal and external brightness	50% Internal to 50% External
Period for request external sensor [0..255]	5
Brightness threshold for presence evaluation [1..2000]	300 lux
Hysteresis of brightness threshold	50 lux
Evaluation time when the brightness exceed "Threshold+Hysteresis"	2 min
Brightness threshold can be changed via bus	☒
Overwrite changed threshold during download	☒

5.6.1.3(2) "Brightness"-Slave

/

Light control ☒

Disable function ☐ Digital/Enable=0

Brightness value setting

Reference internal brightness ☒

Number of reference external brightness 3

Weighting of internal brightness 80

Weighting of external brightness 1 20

Weighting of external brightness 2 20

Weighting of external brightness 3 10

Period for request external sensor [0..255] 5

Send brightness when the result changes

5.7 "Light control"

KNX/EIB

Disable

0

Lower threshold [1..2000]	200	lux
Upper threshold [50..2000]	400	lux
Threshold can be changed via bus	☒	
Overwrite changed threshold during download	☒	
Threshold behaviour	☐ Without hysteresis ☒ With hysteresis	
Object datatype of output	☒ 1bit[On/Off] ☐ 1byte[scene number]	
If brightness < Lower, send (at day)	ON	
If brightness < Lower, send (at night)	ON	
Delay time for sending [0..255]	0	s
Lower ≤ brightness ≤ Upper, send (at day)	No telegram	
Lower ≤ brightness ≤ Upper, send (at night)	No telegram	
Delay time for sending [0..255]	0	s
brightness > Upper, send (at day)	ON	
brightness > Upper, send (at night)	ON	
Delay time for sending [0..255]	0	s

5.7.1 "Output"

Lower threshold [1..2000]

200



lux

Upper threshold [5..2000]

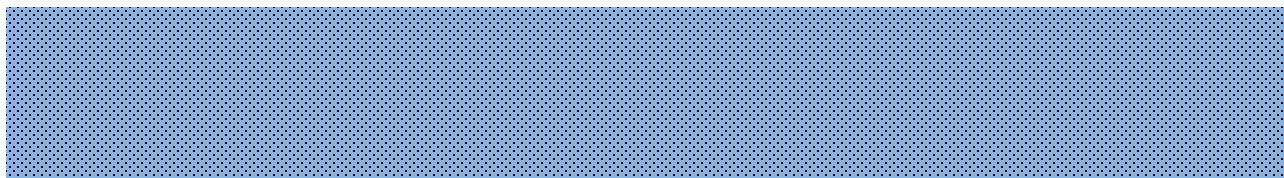
100



lux

1bit

1byte



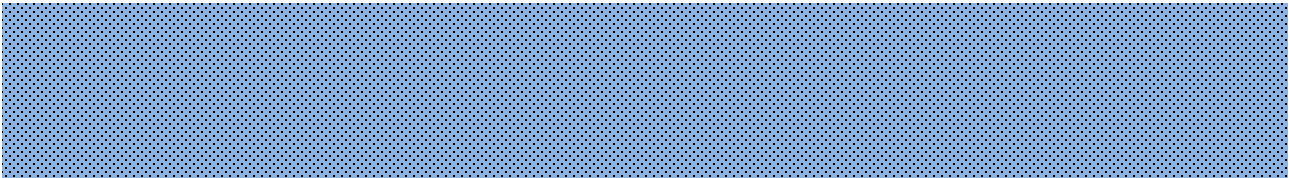
/

/

1bit

1byte

0



/

/

1bit

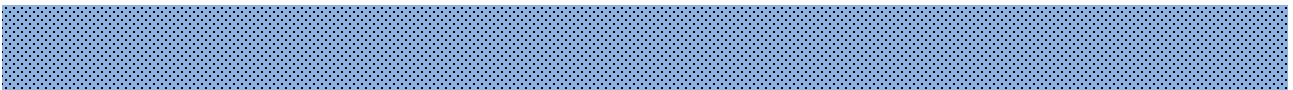
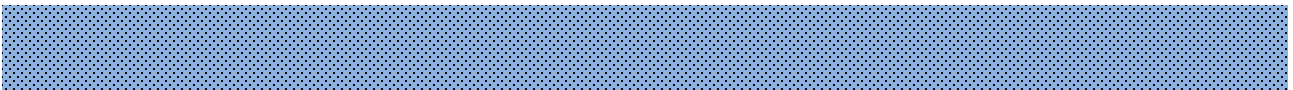
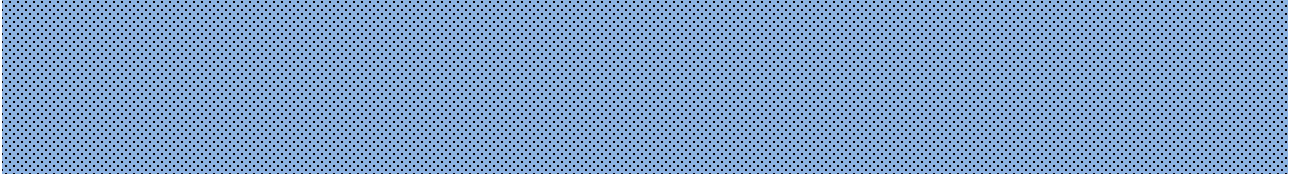
1byte

Constant lighting	☒
Brightness value setting	
Reference internal brightness	☒
Number of reference external brightness	3
Weighting of internal brightness	50 %
Weighting of external brightness 1	20 %
Weighting of external brightness 2	20 %
Weighting of external brightness 3	10 %
Period for request external sensor [0..255]	5 min
Send brightness when the result change by	50lux
Cyclic send brightness [0..255,0=inactive]	10 min

5.8 "Constant lighting"

+

3



Disable



0

Trigger telegram of controller on	A of local presence 1 begin
Trigger telegram of controller off	F of local presence 1 end
Constant lighting status after download	☐ OFF ☒ ON
Constant lighting status after voltage recovery	As before voltage failure
Initial dimming value when control starts (at day)	Via request actuator status
Initial dimming value when query fails	50 %
Setpoint brightness [1..2000]	400 lux
Initial dimming value when control starts (at night)	Via parameter setting
Dimming value	20 %
Hysteresis with setpoint	+/-10 %
Setpoint value can be changed via bus	☒
Min. brightness setpoint [1..2000]	50 lux
Max. brightness setpoint [100..2000]	1600 lux
Overwrite changed setpoint during download	☒
Control speed	02:30 mm:ss
Cyclically send dimming value [0..255,0=inactive]	0 s
Send dimming value when the brightness change by	1 %
Min. dimming value for main	0 %
Max. dimming value for main	100 %
Delay time for standby [0..255,0=inactive]	3 min
Additional hysteresis for controller restart from standby	100 lux
Stop function	☒
Controller automatically restart after [0..255,0=inactive]	0 min

5.8.1 "Output"

None

Trigger telegram of controller on

A of local presence 1 begin ▼



A of local presence 1 begin is no telegram, please active to use controller normally

None

Trigger telegram of controller off

D of local presence 1 end ▼



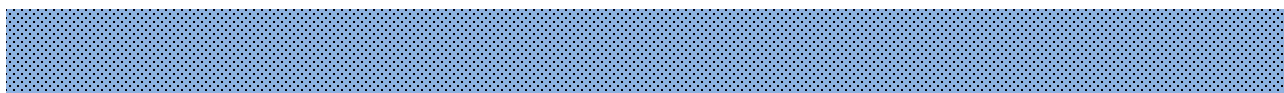
D of local presence 1 end is no telegram, please active to use controller normally

/

“Via parameter setting”

“Via query actuator status”

0



/

Via parameter setting

Via query actuator status

0

Via calculate start value

Ö

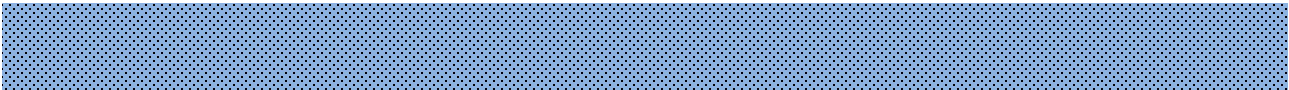
+

+

-

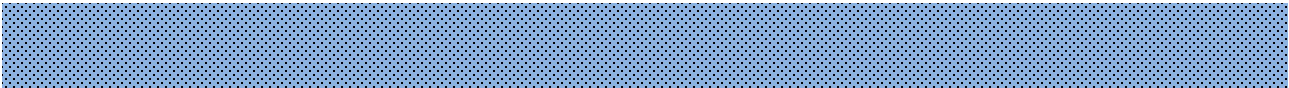
-

	Brightness setpoint [1..2000]	200			
x	Max. brightness setpoint [100..2000]	150			

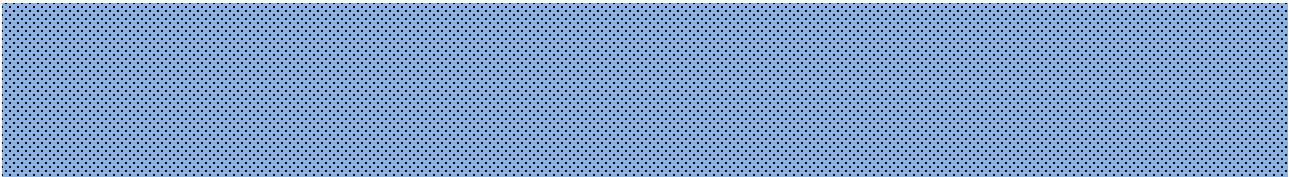
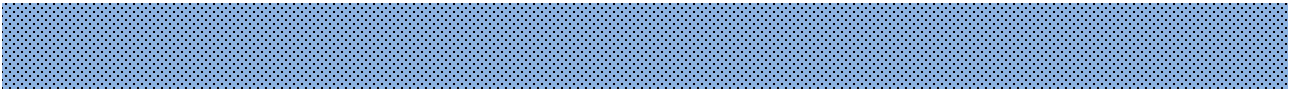


200 1

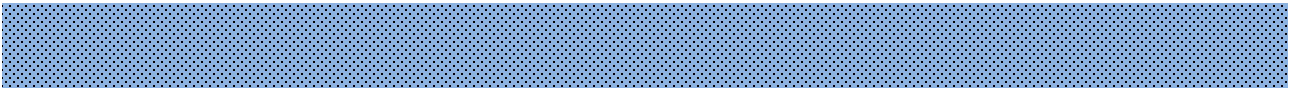
0.5%



0

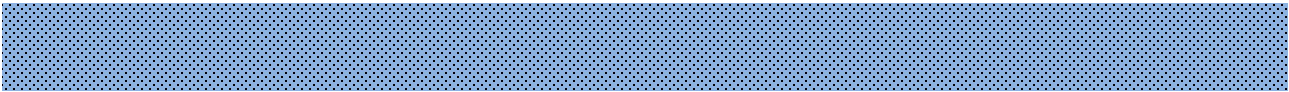


/



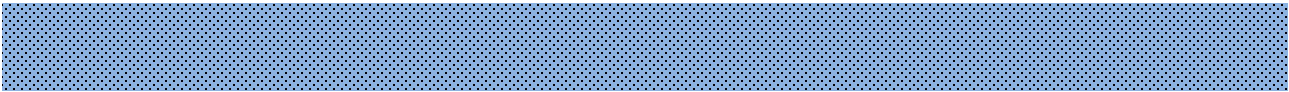
+

0% 0

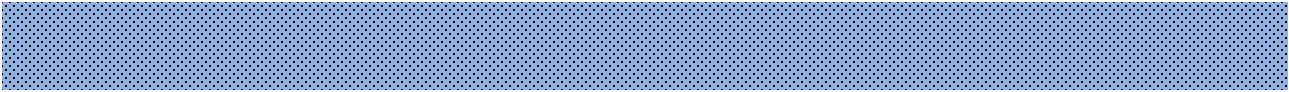


0

“ - - ”



1bit/4bit/1byte



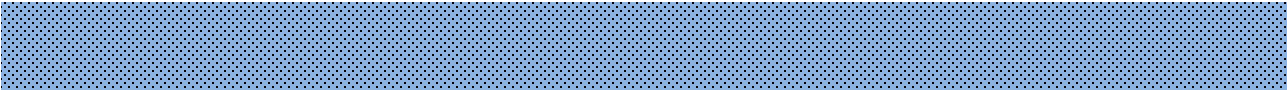
0

Main/Sub operation	☒
Number of subs	4
Control method	☒ Calculating via proportional ☐ Calculating via offsets
Influence of proportional for sub 1	Medium (x0.7), window
Influence of proportional for sub 2	Low (x0.8), window
Influence of proportional for sub 3	Low (x1.4), wall
Influence of proportional for sub 4	Medium (x1.6), wall

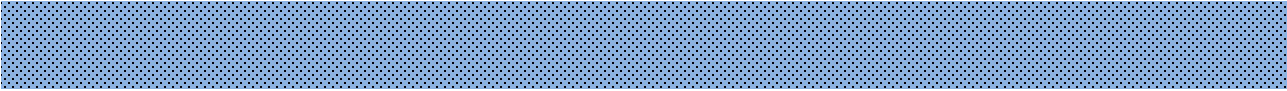
5.8.2(1) "Main-Sub operation"

Main/Sub operation	☒
Number of subs	4
Control method	☐ Calculating via proportional ☒ Calculating via offsets
Min. dimming	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

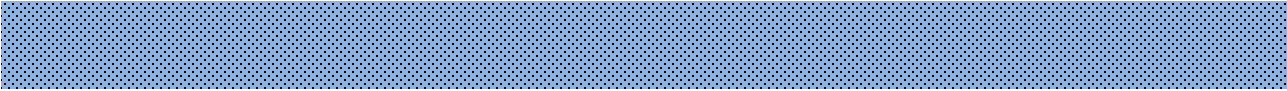
5.8.2(2) "Main-Sub operation"



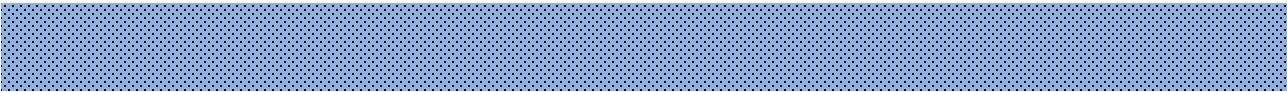
/



4



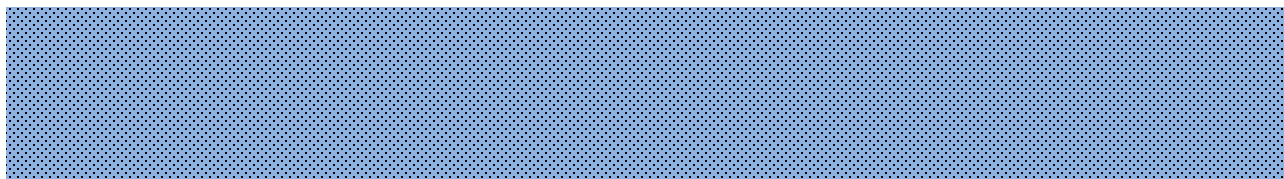
x



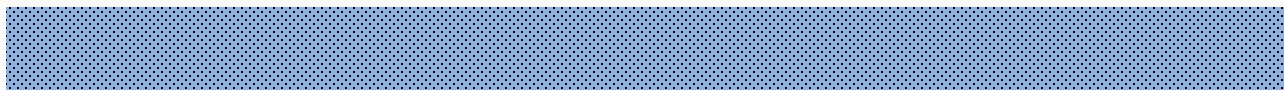
No change (x1)

Very high (x0.5), window

Very high (x2.0), wall



x /



x

RTC 1	☒
RTC 2	☒
RTC 3	☒

5.9 "Room temperature controller"

Description (max 30char.)	
Room temperature reference from	Internal sensor combine with External sensor ▼
Combination ratio	50% Internal to 50% External ▼
Time period for request room temperature sensor [0..255]	10 min
Send temperature when the result change by	1.0 K
Cyclically send temperature [0..255]	0 min
Control value after temp. error [0..100] (if 2-point control, set value '0'=0, set value '>0'=1)	0
Room temperature control mode	Heating and Cooling ▼
Heating/Cooling switchover	☒ Via object ☐ Automatic changeover
Heating/Cooling status after download	☐ Heating ☐ Cooling
Heating/Cooling status after voltage recovery	As before voltage failure ▼
Room temperature control system	☐ 2 pipes system ☐ 4 pipes system
Operation mode	☒
Controller status after download	Comfort mode
Controller status after voltage recovery	As before voltage failure
Extended comfort mode [0..255,0=inactive]	0
1 bit object function for operation mode	☒
1 bit object for standby mode	☒
Fan speed auto.control function	☒

Window contact input function

☒

Delay for window contact [0..65535]

15

s

Controller mode

to

rt

Window

Economy m

g

st/he

on

Bus presence detector function

☒

▼

Trigger telegram of occupied

A of local presence 1 begin

▼

Trigger telegram of unoccupied

F of local presence 1 end

5.9 "RTC x-..."

3

"Internal sensor measurement"5.3

“40% Internal to 60% External”

40%

60%

$$=$$

×40% +

×60%

Disable

0

0

0

0

GVS

K-BUS

KNX/EIB

6S

X QZSQ

EX

GSR

/

□

□

□

□

□

□

□

□

RTC

/

—

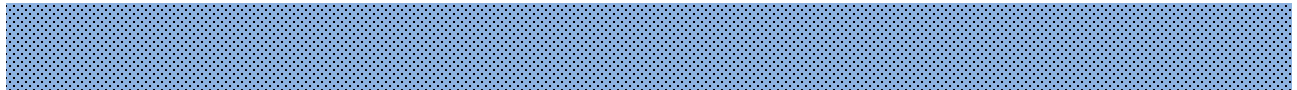
—

□ □

□ □ □

2 pipes system

4 pipes system



RTC

4

1bit

1byte

RTC

RTC

>0

1bit

“Extended comfort mode”

1

1

/

1bit

1

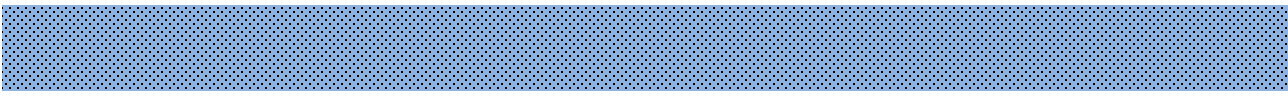
0

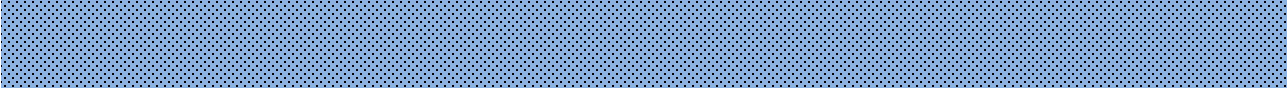
1bit

-

-

-





open

/



/

None

Trigger telegram of occupied

A of local presence 1 begin ▼

✖ A of local presence 1 begin is no telegram, please active to use controller normally

None

Trigger telegram of unoccupied

D of local presence 1 end is no telegram, please active to use controller normally



D of local presence 1 end is no telegram, please active to use controller normally

“Setpoint”

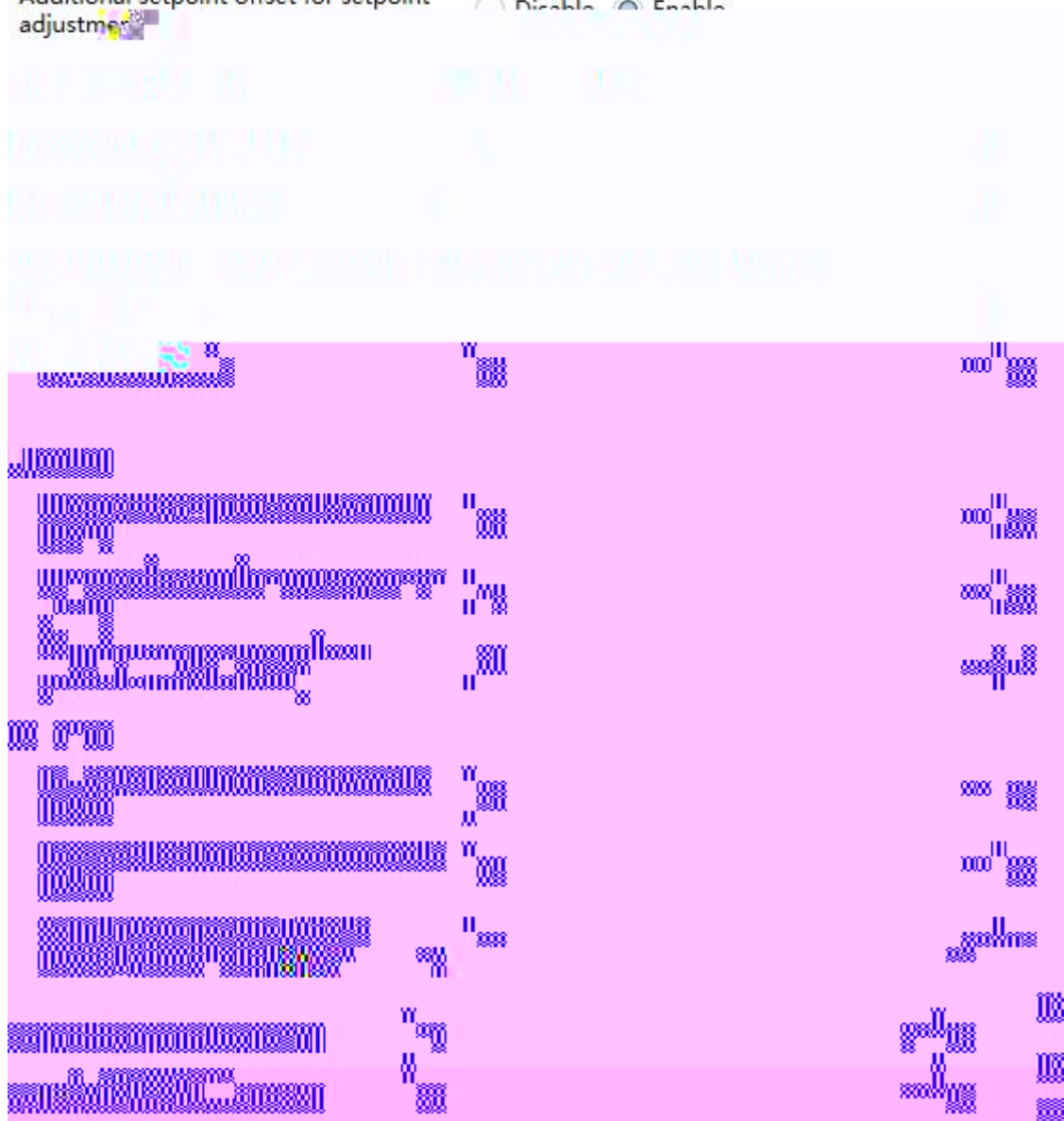
Setpoint method for operating mode

☒ Relative
 ☐ Absolute

Base setpoint temperature

 °C

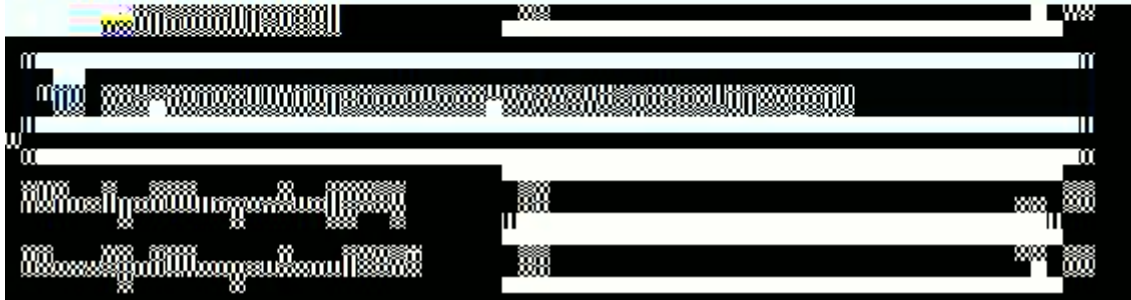
Additional setpoint offset for setpoint adjustment

☐ Disable
 ☒ Enable


Setpoint method for operating mode ☐ Relative ☒ Absolute

Heating

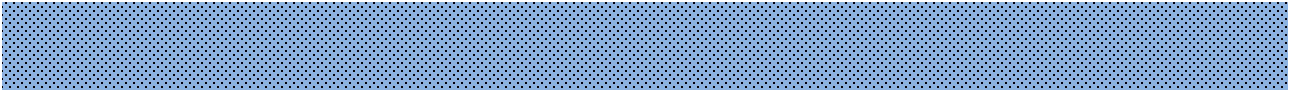
Setpoint temperature in comfort mode [5..37]	21	°C
Setpoint temperature in standby mode [5..37]	19	°C
Setpoint temperature in economy mode [5..37]	17	°C
Setpoint temperature in frost protection mode [5..10]	7	°C



5.9.1 "Setpoint"

Relative

Absolute

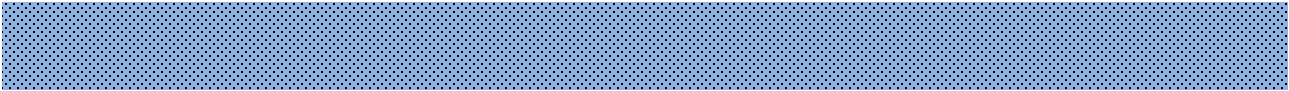


-

-

-

“Base setpoint adjustment”



1bit

1bit “Setpoint offset” /

2byte “Float offset

value”

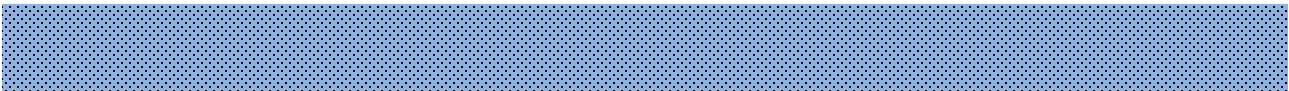
1bit “Setpoint offset reset”

2byte“Float offset value”

/

1-

0-



“Heating and Cooling” “Automatic changeover”

+

-

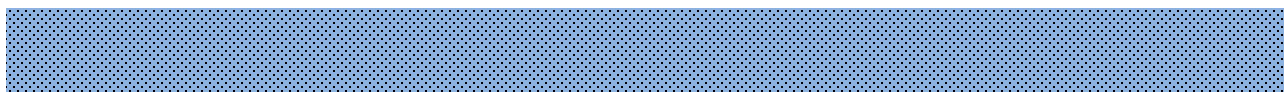
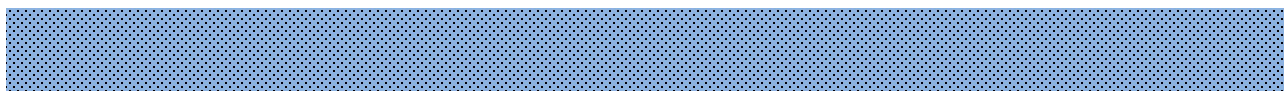
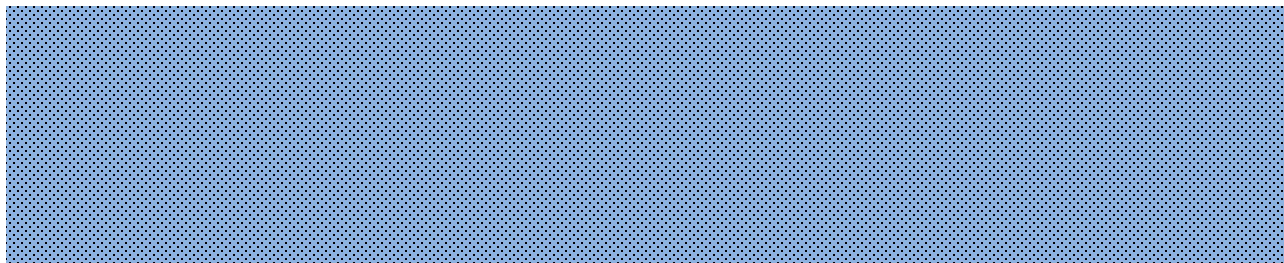
Heating

Cooling

Heating

Cooling





 Note: The following diagram shows the connection of the GVS K-BUS system to the KNX/EIB system.

1.

2.

3.

Type of heating/cooling control Switching on/off(use 2-point control)

Invert control value ☐ No ☒ Yes

Heating

Lower Hysteresis [0..200] 10 *0.1K

Upper Hysteresis [0..200] 10 *0.1K

Cooling

Lower Hysteresis [0..200] 10 *0.1K

Upper Hysteresis [0..200] 10 *0.1K

Cyclically send control value [0..255] 10 min

Additional heating/cooling ☒

Control type ☒ 1bit ☐ 1byte

Invert control value ☒

Temperature difference to switch on additional heating [-100..-5] -25 *0.1K

Hysteresis to switch off additional heating [-20..-1] -5 *0.1K

Temperature difference to switch on additional cooling [5..100] 25 *0.1K

Hysteresis to switch off additional cooling [1..20] 5 *0.1K

Cyclically send control value [0..255] 0 min

"Switching on/off(use 2-point control)"

Type of heating/cooling control Switching PWM(use PI control)

Invert control value ☐ No ☒ Yes

PWM cycle time [1..255] 15 min

Heating speed Hot water heating(5K/150min)

Cooling speed Cooling ceiling (5K/240min)

Cyclically send control value [0..255] 10 min

"Switching PWM(use PI control)"

Heating/cooling control Continuous control(use PI control)

vert control value ☐ No ☒ Yes

Hot water heating(5K/150min)

Cooling ceiling (5K/240min)

control value on change by 4 %

ally send control value [0..255] 10 min

"Continuous control(use PI control)"

5.9.2(1) "Heating/Cooling control"

2 4

/

Yes

RTC

1K 2K 22 T 24

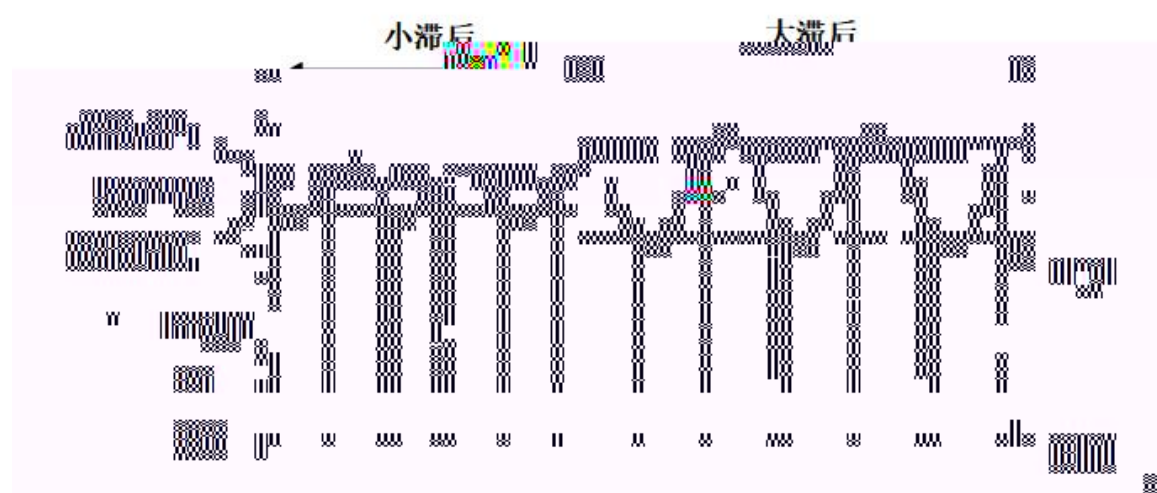
T 21 T 21~24

1K 2K 26 T 25

T 28 T 28~25

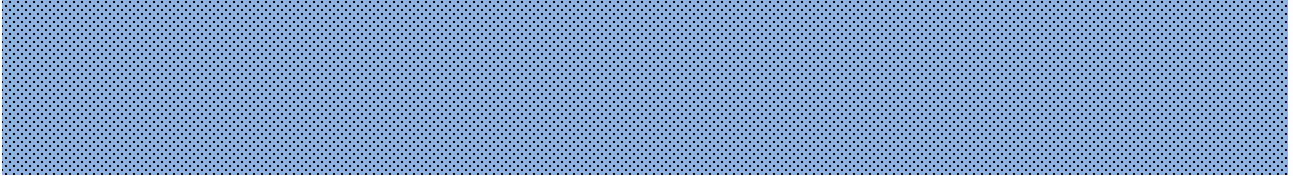
1.

2.



5.5.2(2)

()



PI

“User defined”

PI

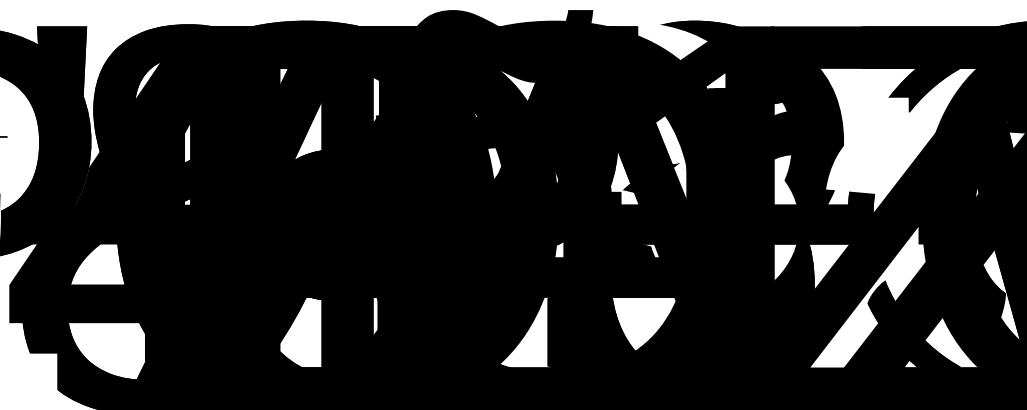
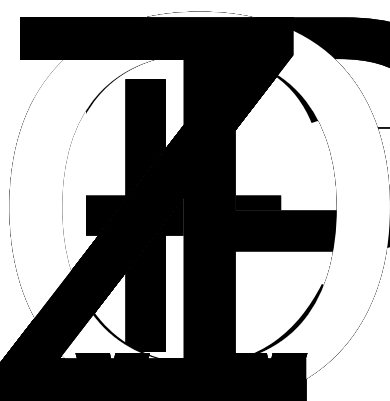
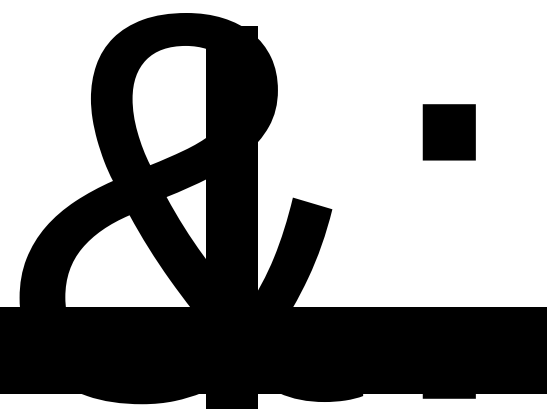
PI

Q/S

K-BUS

KNX/EIB

“Switching



	4K	90min	PWM	10-15min
	4K	90min	Continuous	--

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

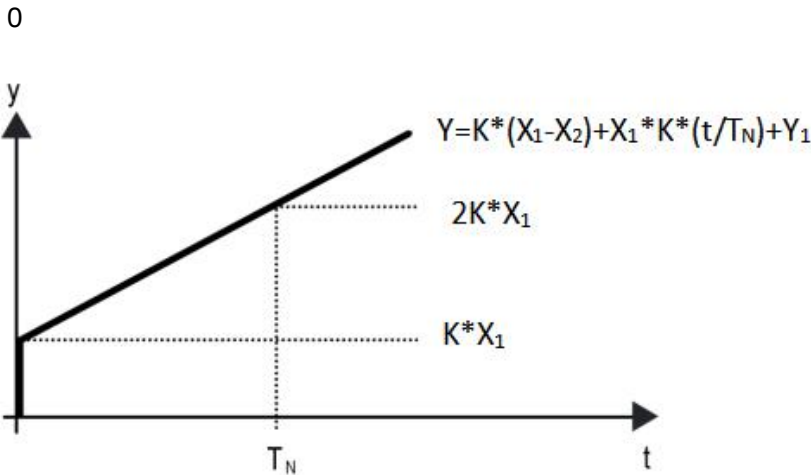
“Heating/Cooling speed”

“User defined”

P

I

PI



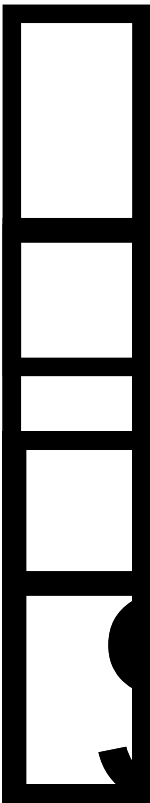
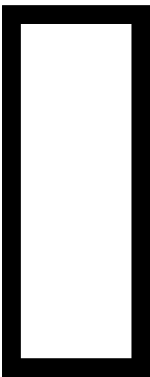
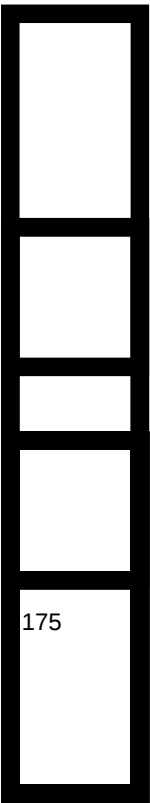
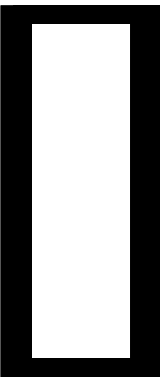
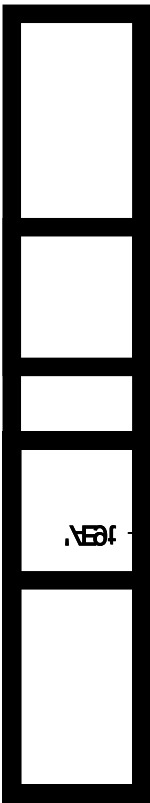
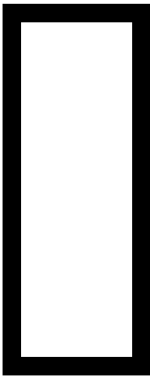
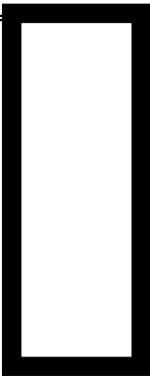
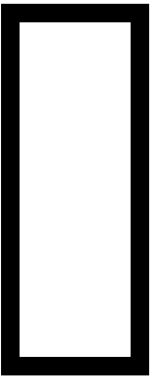
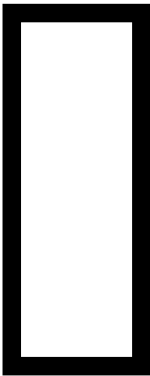
5.5.2(3) PI

Y

Y1

KNX/EIB

'A9t –



'A9t –

10K

5K

20

T

30

T 25

T 25~30

Temperature difference to switch on
additional cooling [5..100]

*0.1K

Hysteresis to switch off additional
cooling [1..20]

*0.1K

Auto. operation on object value

☒ Auto=1/Man.=0
 ☐ Auto=0/Man.=1

Fan speed output setting

☐ Fan stage (DPT 5.100)
 ☒ Percentage (DPT 5.001)

data type of 1 byte fan speed

Output value for fan speed low	33	%
Output value for fan speed medium	67	%
Output value for fan speed high	100	%
1 bit object function for fan speed	☒	
1 bit object for fan speed off	☒	

Fan speed control setting

Condition setting for using PI control

Threshold value speed OFF<-->low [1..255]	80
Threshold value speed low<-->medium [1..255]	150
Threshold value speed medium<-->high [1..255]	200
Hysteresis threshold value in +/- [0..50]	10

Condition setting for using 2-point control

Temperature difference speed OFF<-->low [1..200]	20	*0
Temperature difference speed low<-->medium [1..200]	30	*0
Temperature difference speed medium<-->high [1..200]	40	*0
Hysteresis temperature difference in [0..50]	10	*0

Minimum time in fan speed [0..65535]	60
--------------------------------------	----

5.9.3 "Fan"

Auto=1/Man.=0	“Fan automatic operation”	“0”	“1”
Auto=0/Man.=1	“Fan automatic operation”	“1”	“0”

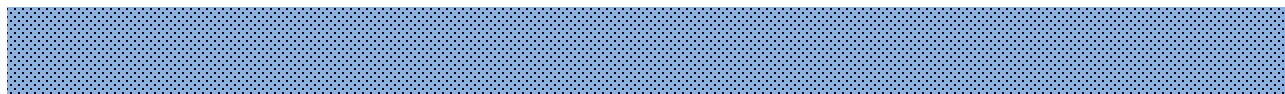
1byte

0



1bit

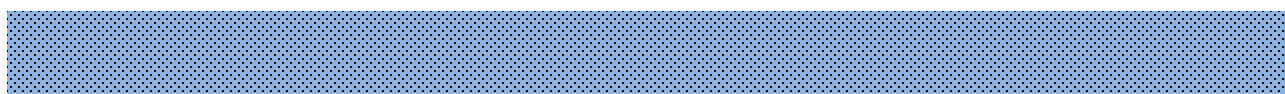
1bit



1bit

PI

PI



Threshold value speed OFF<->low
[1..255]

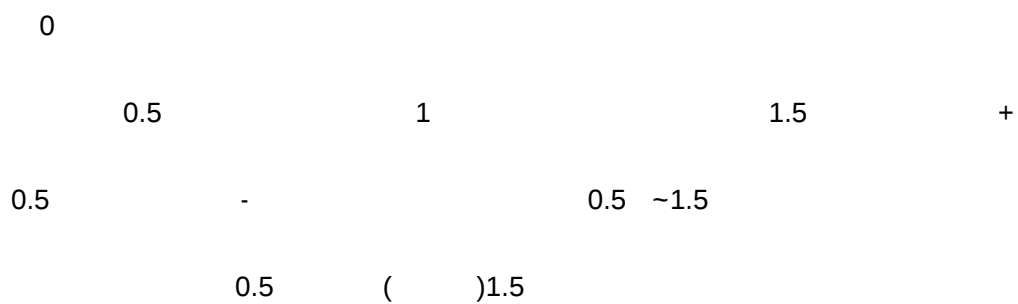
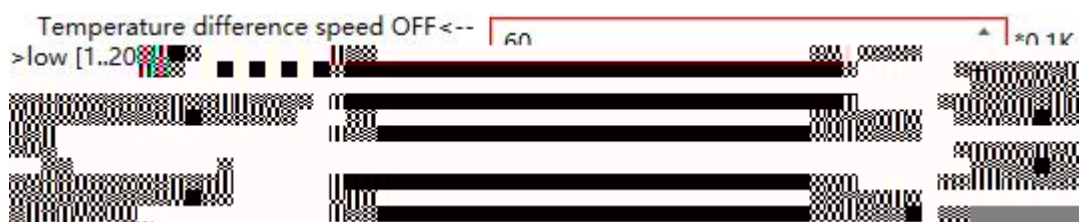
150

Threshold value speed low<->medium
[1..255]

50

Threshold value speed medium<->high
[1..255]

200



0

PM2.5 CO2 TVOC

5.10

Auto.operation on object value ☒ Auto=1/Man.=0 ☐ Auto=0/Man.=1

State of Auto.operation after startup ☐ Disable ☒ Enable

Fan speed output setting

Object datatype of 1byte fan speed ☐ Fan stage (DPT_5.100) ☒ Percentage (DPT_5.100)

Output value for fan speed low 33

Output value for fan speed medium 67

Output value for fan speed high 100

Fan speed control setting

Control value reference from PM2.5

Object datatype of PM2.5 Float value in ug/m3(DPT_9.030)

PM2.5 reference from Internal sensor combine with External sensor

Combination ratio 10% Internal to 90% External

Period for request external sensor [0...255,0=inactive] 10 min

Send PM2.5 when the result change 50

Cyclically send PM2.5 [0...255,0=inactive] 10 min

The fan speed status when the control value error Off

Threshold value OFF<-->speed low [1..999] 35 ug/m3

Threshold value speed low<-->medium [1..999] 75 ug/m3

Threshold value speed medium<-->high [1..999] 115 ug/m3

Hysteresis value is threshold value in +/- [10..30] 10 ug/m3

Minimum time in fan speed [0..30] 10

5.10 "Ventilation controller"

Auto=1/Man.=0

“Fan automatic operation”

“1”

“0”

Auto=0/Man.=1

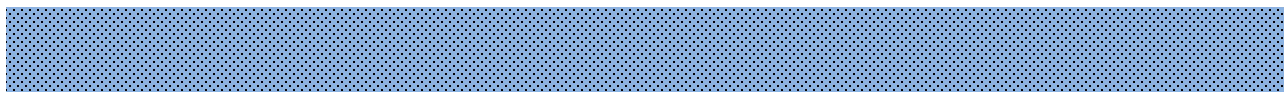
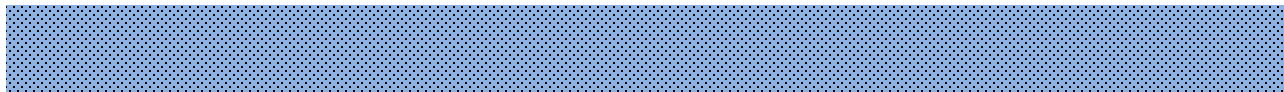
“Fan automatic operation”

“0”

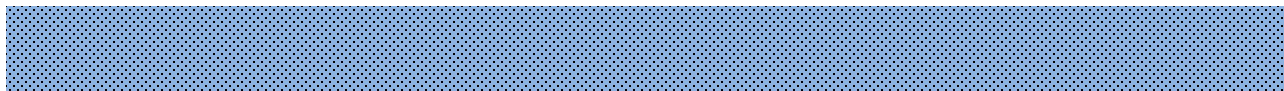
“1”

1byte

0



PM2.5/CO2/TVOC



PM2.5/CO2/TVOC

PM2.5/CO2/TVOC

“Internal sensor measurement”

5.3

PM2.5/CO2/TVOC

PM2.5/CO2/TVOC

"40% Internal to 60% External"

40%

60%

PM2.5/CO2/TVOC

=

PM2.5/CO2/TVOC

Ö 40% +

PM2.5/CO2/TVOC

Ö 60%

PM2.5/CO2/TVOC

PM2.5/CO2/TVOC

PM2.5/CO2/TVOC

PM2.5/CO2/TVOC

PM2.5/CO2/TVOC

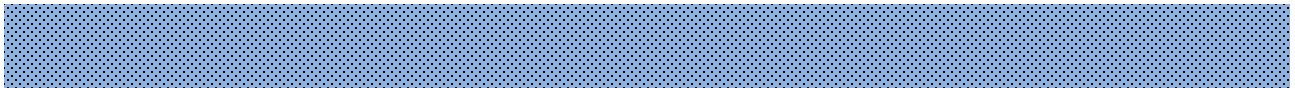
[Disable]/[10...50ug/m3]/[10...500ppm]/[10...500ug/m3]/[0.01...0.5ppm]

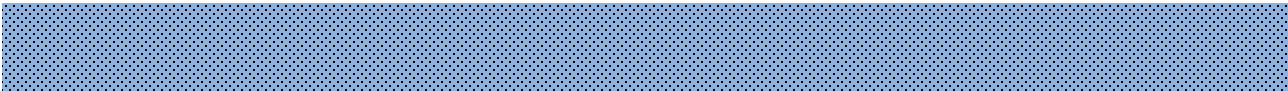
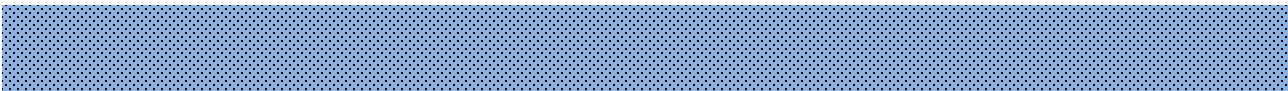
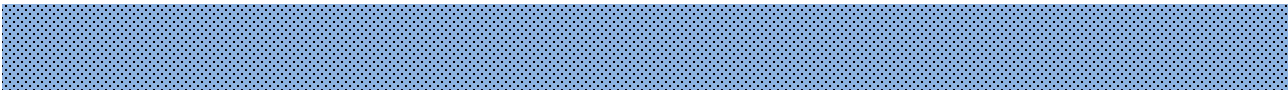
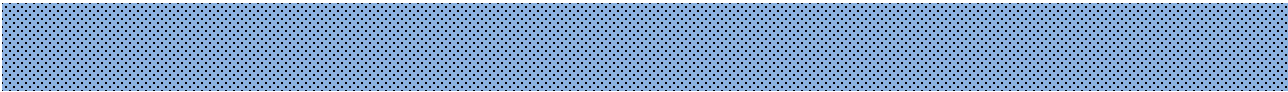
Control

value reference from "Object datatype of TVOC"

PM2.5/CO2/TVOC

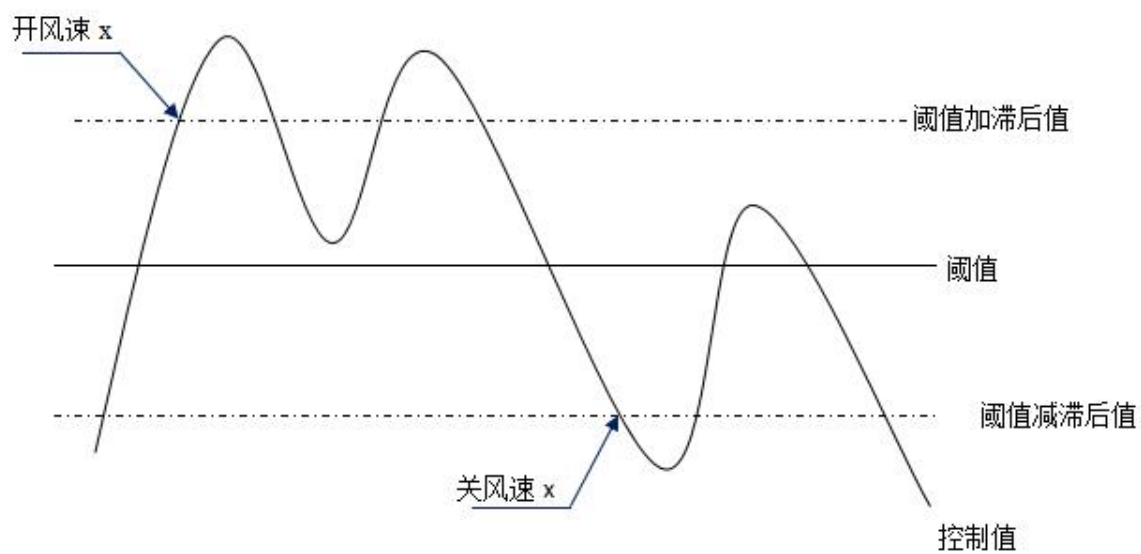
0





	CO2	100	450	550	+	350
-		350~550				350

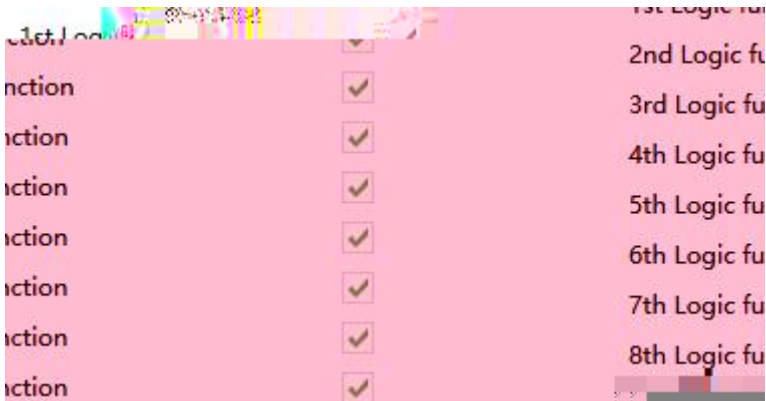
550



0

“Logic function” 5.11

8

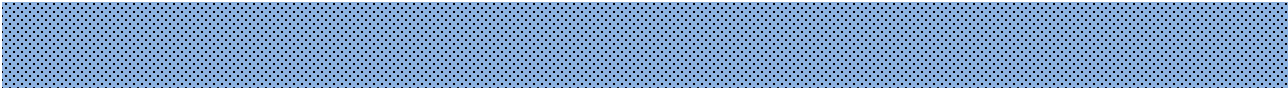


Description for logic function

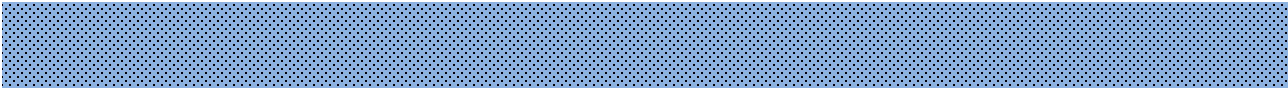
Function of channel

AND

5.11 “Logic function”



8



AND/OR/XOR



Disconnected ;-

Normal

revertedvÚS'

input x



'Æçè" _As36?c> %ivÛ

Receiving a new telegram

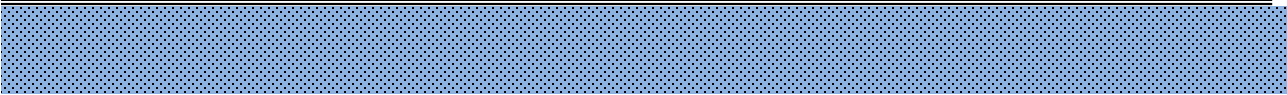
Every change of output object



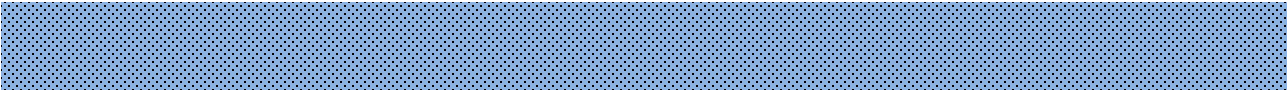
Base × Factor

Base

“None”



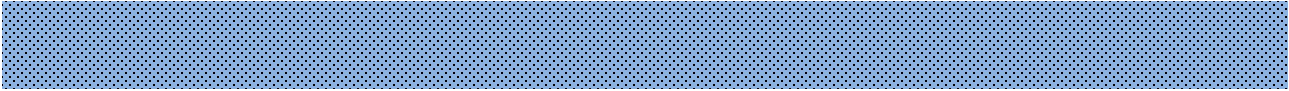
8



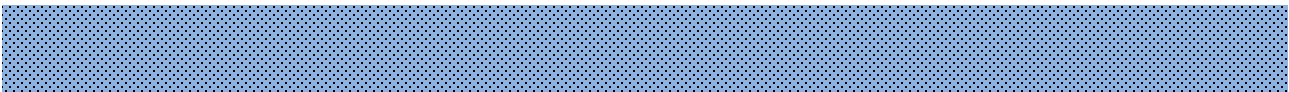
X (X=A/B/C/D)

Description for logic function	
Function of channel	Threshold comparator ▼
Threshold value	Byte unsigned value (0x15.000)
Threshold value	0
If Object value < Threshold value	Do not send telegram
If Object value = Threshold value	Do not send telegram
If Object value = Threshold value	Do not send telegram
If Object value > Threshold value	Do not send telegram
If Object value > Threshold value	Do not send telegram
If Object value > Threshold value	Do not send telegram
If Object value > Threshold value	Do not send telegram
Output send when	☒ Receiving a new telegram ☐ Every change of output object
Send delay time: Base	None
Factor: 1.255	1

5.11.3 "Logic function_Threshold comparator"



“2byte float value (DPT9.x)” “Illuminance value (DPT 9.004)”



“2byte float value (DPT9.x)” “Illuminance value (DPT 9.004)”

Do not send telegram

Send value “0”/“1”

0 1

GVS

K-BUS

KNX/EIB

□ □ □ □

Receiving a new telegram

Every change of output object

Description for logic function

Function of channel

Function

Output send when

Format convert ▼

2x1Bit-->1x2Bit ▼

- ☒ Receiving a new telegram
☐ Every change of output object

5.11.4 "Logic function _Format convert"

Receiving a new telegram

Every change of output object

Description for logic function

Function of channel

Object type of Input/Output

Filter function

Value output

Gate object value

Gate status after voltage recovery

Save input signal when gate close

Gate function

1bit[On/Off]

Deactivate

☒ Normal ☐ Inverted

☒ Normal ☐ Inverted

☐ Disable ☒ Enable

☒ No ☐ Yes

5.11.5 "Gate function"

/

"1bit[On/Off]"

On Off

Deactivate On Off

On filter out On [

Off filter out On

Off

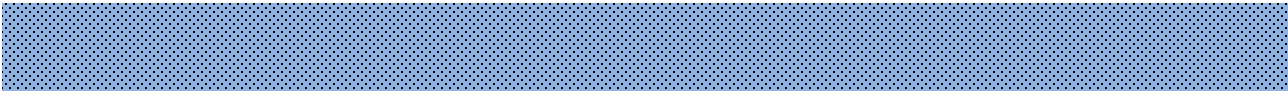
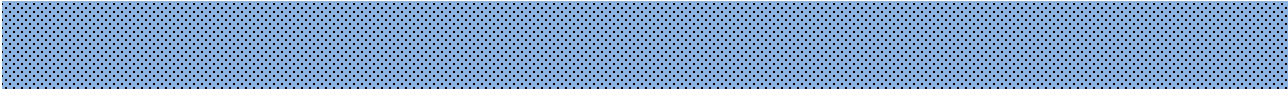
“1bit[On/Off]”

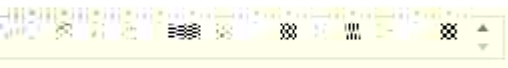
No

Yes

Description for logic function	
Function of channel	Delay function ▼
Object type of Input/Output	1bit[On/Off] ▼
Delay time [0..6500]	10 ▲ ▼ s

5.11.6 "Delay function"


/ 

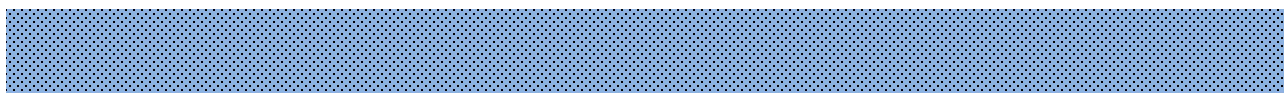
Description for logic function	
Function of channel	Staircase lighting ▾
Trigger value	1 ▾
Object type of output	☒ 1bit ☐ 1byte
Duration time of staircase lighting [10_6500]	10  s
Send value 1 when trigger	☐ OFF ☒ ON
Send value 2 after duration time	☒ OFF ☐ ON
Retriggering	☐ Disable ☒ Enable

5.11.7 "Staircase lighting"

"Trigger value"

1bit

1byte



“Scene Group function”

8

8

Scene Group 1 Function	☒
Scene Group 2 Function	☐
Scene Group 3 Function	☐
Scene Group 4 Function	☐
Scene Group 5 Function	☐
Scene Group 6 Function	☐
Scene Group 7 Function	☐
Scene Group 8 Function	☐

5.12(1) “Scene Group function”

Output 1 Function	☒
Output 2 Function	☐
Output 3 Function	☐
Output 4 Function	☐
Output 5 Function	☐
Output 6 Function	☐
Output 7 Function	☐
Output 8 Function	☐

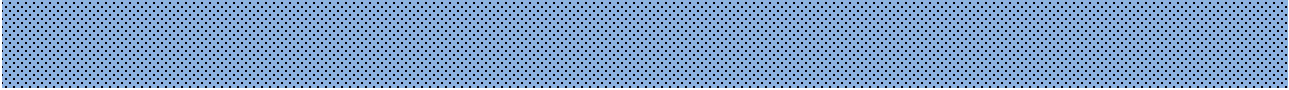
5.12(2) “Group X”

Description for Output 1 function	
Object type of Output 1	1bit
1->Output 1 trigger scene NO. is [1~64,0=inactive]	0
Object value of Output 1	☒ 0 ☐ 1
Delay time for sending [0..255]	0 *0.1s
2->Output 1 trigger scene NO. is [1~64,0=inactive]	0
Object value of Output 1	☒ 0 ☐ 1
Delay time for sending [0..255]	0 *0.1s

5.12(3) “Output Y function”

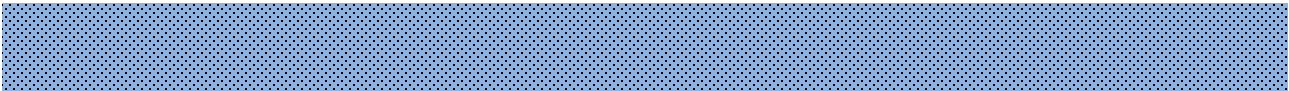


x 8

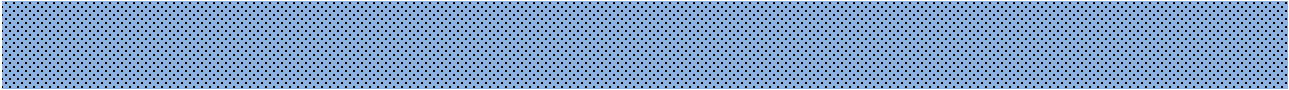


x y 8

8 8



x y 30



x y

1byte 2byte

1byte

2byte

x

y

8

y

1bit

1byte-1byte unsigned value

1byte-HVAC mode

2byte-2byte unsigned value

2byte-Temperature value

RGB

RGB

RGBW

:

	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
	1	Geni											

6.1 "General"

1					
/					
0					
1					
1bit LED					
0					
1					

6.1 "General"

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
2	Internal sensor	Brightness										

6.2 “Internal sensor measurement”

[illegible]

CO2CO2					
CO2					
1					
0					
CO2CO2					
CO2CO2					
PM2.5PM2.5					
PM2.5					
1					
0					
PM2.5PM2.5					
PM10PM10					
PM10					

1					
0					
PM10			PM10		
TVOC			TVOC		
TVOC					
1					
0					
TVOC			TVOC		
1					
0					

6.2 "Internal sensor measurement"

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
163	AQI Level	Output value of level 1			1 bit	C	R	-	T	-	switch	低
164	AQI Level	Output value of level 2			1 bit	C	R	-	T	-	switch	低
165	AQI Level	Output value of level 3			1 bit	C	R	-	T	-	switch	低
166	AQI Level	Output value of level 4			1 bit	C	R	-	T	-	switch	低
167	AQI Level	Output value of level 5			1 bit	C	R	-	T	-	switch	低
168	AQI Level	Output value of level 6			1 bit	C	R	-	T	-	switch	低

6.3.1 "AQI Level"

	1~6				
1bit					
	166	1			
	167	2			
	168	3			
	169	4			
	170	5			
	171	6			
1byte					166

6.3.1 “AQI Level”

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
181	CO2 Level	External sensor value 1			2 bytes	C	-	W	T	U	parts/million (ppm)	
186	CO2 Level	Output value of level 1			1 bit	C	R	-	T	-	switch	低

6.3.2 “CO2 Level”

CO2						
	0					
CO2						
1byte 3byte						
1~4						

1bit

186 1

187 2

188 3

189 4

1byte

186

6.3.2 "CO2 Level"

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
172	Relative humidity Level	External sensor value 1			2 bytes	C	-	W	T	U	humidity (%)	低
173	Relative humidity Level	External sensor value 2			2 bytes	C	-	W	T	U	humidity (%)	低
174	Relative humidity Level	External sensor value 3			2 bytes	C	-	W	T	U	humidity (%)	低
175	Relative humidity Level	Actual sensor value			2 bytes	C	R	-	T	-	humidity (%)	低
176	Relative humidity Level	Alarm message			14 bytes	C	-	-	T	-	Character String (ISO 8859-1)	低
177	Relative humidity Level	Output value			1 byte	C	R	-	T	-	percentage (0..100%)	低
177	Relative humidity Level	Output value of ele 1			1 bit	C	R	-	T	-	switch	低
178	Relative humidity Level	Output value of ele 2			1 bit	C	R	-	T	-	switch	低
179	Relative humidity Level	Output value of ele 3			1 bit	C	R	-	T	-	switch	低
180	Relative humidity Level	Output value of ele 4			1 bit	C	R	-	T	-	switch	低

6.3.3 "Relative humidity Level"

0					
1byte 3byte					

1~4					
1bit					
	177	1			
	178	2			
	179	3			
	180	4			
1byte					180

6.3.3 “Relative humidity Level”

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
190	PM2.5 Level	External sensor value 1			2 bytes	C	-	W	T	U	concentration (µg/m³)	低
191	PM2.5 Level	External sensor value 2			2 bytes	C	-	W	T	U	concentration (µg/m³)	低
192	PM2.5 Level	External sensor value 3			2 bytes	C	-	W	T	U	concentration (µg/m³)	低
193	PM2.5 Level	Actual sensor value			2 bytes	C	R	-	T	-	concentration (µg/m³)	低
194	PM2.5 Level	Alarm message			14 bytes	C	-	-	T	-	Character String (ISO 8859-1)	低
195	PM2.5 Level	Output value			1 byte	C	R	-	T	-	percentage (0..100%)	低
195	PM2.5 Level	Output value of level 1			1 bit	C	R	-	T	-	switch	低
196	PM2.5 Level	Output value of level 2			1 bit	C	R	-	T	-	switch	低
197	PM2.5 Level	Output value of level 3			1 bit	C	R	-	T	-	switch	低
198	PM2.5 Level	Output value of level 4			1 bit	C	R	-	T	-	switch	低
199	PM2.5 Level	Output value of level 5			1 bit	C	R	-	T	-	switch	低

6.3.4 "PM2.5 Level"

PM2.5					
	0				
PM2.5					
1byte 3byte					

	1~6				
1bit					
	195	1			
	196	2			
	197	3			
	198	4			
	199	5			
	200	6			
1byte					195

6.3.4 “PM2.5 Level”

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
201	PM10 Level	External sensor value 1			2 bytes	C	-	W	T	U	concentration (µg/m³)	低
202	PM10 Level	External sensor value 2			2 bytes	C	-	W	T	U	concentration (µg/m³)	低
203	PM10 Level	External sensor value 3			2 bytes	C	-	W	T	U	concentration (µg/m³)	低
204	PM10 Level	Actual sensor value			2 bytes	C	R	-	T	-	concentration (µg/m³)	低
205	PM10 Level	Alarm message			1 byte	C	R	-	T	-	percentage (0,100%)	低
206	PM10 Level	Output value			1 byte	C	R	-	T	-	percentage (0,100%)	低
206	PM10 Level	Output value of level 1			1 bit	C	R	-	T	-	switch	低
207	PM10 Level	Output value of level 2			1 bit	C	R	-	T	-	switch	低
208	PM10 Level	Output value of level 3			1 bit	C	R	-	T	-	switch	低
209	PM10 Level	Output value of level 4			1 bit	C	R	-	T	-	switch	低

6.3.5 "PM10 Level"

PM10					
0					
PM10					
1byte 3byte					

1~4		
1bit		
	206	1
	207	2
	208	3
	209	4
1byte		206

6.3.5 “PM10 Level”

	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
■	210	TVOC Level	External sensor value 1			2 bytes	C	-	W	T	U	concentration ($\mu\text{g}/\text{m}^3$)	低
■	211	TVOC Level	External sensor value 2			2 bytes	C	-	W	T	U	concentration ($\mu\text{g}/\text{m}^3$)	低
■	212	TVOC Level	External sensor value 3			2 bytes	C	-	W	T	U	concentration ($\mu\text{g}/\text{m}^3$)	低
■	213	TVOC Level	Actual sensor value			2 bytes	C	R	-	T	-	concentration ($\mu\text{g}/\text{m}^3$)	低
■	214	TVOC Level	Alarm message			14 bytes	C	-	-	T	-	Character String (ISO 8859-1)	低
■	215	TVOC Level	Output value			1 byte	C	R	-	T	-	percentage (0..100%)	低
■	215	TVOC Level	Output value of level 1			1 bit	C	R	-	T	-	switch	低
■	216	TVOC Level	Output value of level 2			1 bit	C	R	-	T	-	switch	低
■	217	TVOC Level	Output value of level 3			1 bit	C	R	-	T	-	switch	低
■	218	TVOC Level	Output value of level 4			1 bit	C	R	-	T	-	switch	低

6.3.6 "TVOC Level"

TVOC					
0					
TVOC					
1byte 3byte					

1~4					
1bit					
	215	1			
	216	2			
	217	3			
	218	4			
1byte					
					215

6.3.6 “TVOC Level”

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
219	Formaldehyde Level	External sensor value 1			2 bytes	C	-	W	T	U	concentration (µg/m³)	低
220	Formaldehyde Level	External sensor value 2			2 bytes	C	-	W	T	U	concentration (µg/m³)	低
221	Formaldehyde Level	External sensor value 3			2 bytes	C	-	W	T	U	concentration (µg/m³)	低
222	Formaldehyde Level	Actual sensor value			2 bytes	C	R	-	T	-	concentration (µg/m³)	低
223	Formaldehyde Level	Alarm message			14 bytes	C	-	-	T	-	Character String (ISO 8859-1)	低
224	Formaldehyde Level	Output value			1 byte	C	R	-	T	-	percentage	低
224	Formaldehyde Level	Output value of level 1			1 bit	C	R	-	T	-	switch	低
225	Formaldehyde Level	Output value of level 2			1 bit	C	R	-	T	-	switch	低
226	Formaldehyde Level	Output value of level 3			1 bit	C	R	-	T	-	switch	低
227	Formaldehyde Level	Output value of level 4			1 bit	C	R	-	T	-	switch	低

6.3.7 "Formaldehyde Level"

0					
1byte 3byte					

1~4					
1bit					
	224	1			
	225	2			
	226	3			
	227	4			
1byte					
					224

6.3.7 "Formaldehyde Level"

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
228	Relative humidity controller	Controller on/off			1 bit	C	-	W	-	-	switch	低
230	Relative humidity controller	External sensor value			2 bytes	C	-	W	T	U	humidity (%)	低
231	Relative humidity controller	Controller status			1 bit	C	R	-	T	-	switch	低

6.4.1 "Relative humidity controller"

1— 0—					
0					
1— 0—					

OFF

6.4.1 "Relative humidity controller"

KNX

OFF					

6.4.2 "CO2 controller"

序号 ^	名称	对象功能	描述	寄存器地址	长度	C	R	W	T	U	数据类型	优先级
242	Presence control 1	Slave input			1 bit	C	-	W	T	U	switch	低
243	Presence control 1	Begin of presence, A			1 bit	C	-	-	T	-	switch	低
244	Presence control 1	Begin of presence, B			1 bit	C	-	-	T	-	switch	低
245	Presence control 1	Begin of presence, C			1 bit	C	-	-	T	-	switch	低
246	Presence control 1	End of presence, D			1 bit	C	-	-	T	-	switch	低
247	Presence control 1	End of presence, E			1 bit	C	-	-	T	-	switch	低
248	Presence control 1	End of presence, F			2 bytes	C	-	-	T	-	pulses	低
249	Presence control 1	Follow-up time[10..65535]s			2 bytes	C	R	W	-	-	time (s)	低
250	Presence control 1	External input			1 bit	C	-	W	-	-	trigger	低
251	Presence control 1	Auto.mode/Semi-Auto			1 bit	C	-	W	-	-	enable	低

Presence function-Master

序号 ^	名称	对象功能	描述	寄存器地址	长度	C	R	W	T	U	数据类型	优先级
243	Presence control 1	Slave output			1 bit	C	R	-	T	-	switch	低
252	Presence control 1	End presence (only off telegram)			1 bit	C	-	W	-	-	switch	低
253	Presence control 1	Brightness independent			1 bit	C	-	W	-	-	enable	低
254	Presence control 1	External brightness			2 bytes	C	-	W	T	U	lux (Lux)	低
255	Presence control 1	Actual brightness			2 bytes	C	R	-	T	-	lux (Lux)	低
256	Presence control 1	Brightness threshold for presence[1..2000]			2 bytes	C	R	W	T	-	lux (Lux)	低
257	Presence control 1	Dis/En presence function			1 bit	C	-	W	-	-	enable	低

Presence function-Slave

6.5 "Presence function"

□ □ □ □ □

No telegram					
No telegram					

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
310	Light control	External brightness 1			2 bytes	C	-	W	T	U	lux (Lux)	低
311	Light control	External brightness 2			2 bytes	C	-	W	T	U	lux (Lux)	低
312	Light control	External brightness 3			2 bytes	C	-	W	T	U	lux (Lux)	低
313	Light control	Actual brightness			2 bytes	C	R	-	T	-	lux (Lux)	低
314	Light control	Light control			1 bit	C	-	-	T	-	switch	低
315	Light control	Lower brightness threshold[1..2000]			2 bytes	C	R	W	-	-	lux (Lux)	低
316	Light control	Upper brightness threshold[50..2000]			2 bytes	C	R	W	-	-	lux (Lux)	低
317	Light control	Dis./En. function			1 bit	C	-	W	-	-	enable	低

6.6 "Light control"

3		0			
2					

6.6 "Light control"

4					
OFF					

6.7 "Constant lighting"

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
334	RTC 1 - ...	Power on/off			1 bit	C	R	W	-	-	switch	低
335	RTC 1 - ...	External temperature sensor			2 bytes	C	-	W	T	U	temperature (°C)	低
336	RTC 1 - ...	Current setpoint adjustment			2 bytes	C	-	W	-	-	temperature (°C)	低
340	RTC 1 - ...	Heating/Cooling mode			1 bit	C	-	W	-	-	cooling/heating	低
341	RTC 1 - ...	Operation mode			1 byte	C	-	W	-	-	HVAC mode	低
342	RTC 1 - ...	Comfort mode			1 bit	C	-	W	-	-	enable	低
343	RTC 1 - ...	Economy mode			1 bit	C	-	W	-	-	enable	低
344	RTC 1 - ...	Frost/Heat protection mode			1 bit	C	-	W	-	-	enable	低
345	RTC 1 - ...	Standby mode			1 bit	C	-	W	-	-	enable	低
346	RTC 1 - ...	Extended comfort mode			1 bit	C	-	W	-	-	acknowledge	低
347	RTC 1 - ...	Fan automatic operation			1 bit	C	-	W	-	-	enable	低
348	RTC 1 - ...	Window contact			1 bit	C	-	W	T	U	window/door	低
349	RTC 1 - ...	External presence detector			1 bit	C	-	W	T	U	occupancy	低
350	RTC 1 - ...	Actual temperature, status			2 bytes	C	R	-	T	-	temperature (°C)	低
354	RTC 1 - ...	Current temperature setpoint, status			2 bytes	C	R	-	T	-	temperature (°C)	低
355	RTC 1 - ...	Heating/Cooling mode, status			1 bit	C	R	-	T	-	cooling/heating	低
356	RTC 1 - ...	Operation mode, status			1 byte	C	R	-	T	-	HVAC mode	低
357	RTC 1 - ...	Comfort mode, status			1 bit	C	R	-	T	-	enable	低
358	RTC 1 - ...	Economy mode, status			1 bit	C	R	-	T	-	enable	低
359	RTC 1 - ...	Frost/Heat protection mode, status			1 bit	C	R	-	T	-	enable	低
360	RTC 1 - ...	Standby mode, status			1 bit	C	R	-	T	-	enable	低
361	RTC 1 - ...	Heating control value			1 bit	C	R	-	T	-	switch	低
362	RTC 1 - ...	Cooling control value			1 bit	C	R	-	T	-	switch	低
363	RTC 1 - ...	Fan speed			1 byte	C	-	-	T	-	percentage (0..100%)	低
364	RTC 1 - ...	Fan speed low			1 bit	C	-	-	T	-	switch	低
365	RTC 1 - ...	Fan speed medium			1 bit	C	-	-	T	-	switch	低
366	RTC 1 - ...	Fan speed high			1 bit	C	-	-	T	-	switch	低
367	RTC 1 - ...	Additional heating control value			1 bit	C	-	-	T	-	switch	低
368	RTC 1 - ...	Additional cooling control value			1 bit	C	-	-	T	-	switch	低

Absolute

337	RTC 1 - ...	Setpoint offset			1 bit	C	-	W	-	-	step	低
338	RTC 1 - ...	Float offset value			2 bytes	C	-	W	-	-	temperature difference (K)	低
339	RTC 1 - ...	Setpoint offset reset			1 bit	C	-	W	-	-	reset	低
351	RTC 1 - ...	Base temperature setpoint, status			2 bytes	C	R	-	T	-	temperature (°C)	低
352	RTC 1 - ...	Setpoint offset, status			2 bytes	C	R	-	T	-	temperature difference (K)	低

Relative

6.8 "RTC function"

1 0					

“Current setpoint adjustment”

“Base setpoint adjustment”

1

0

2byte

1

1

0

1byte					
341		1-	2-	3-	4-
1bit					
342					
343					
344					
345					
“1”		1bit			0
1bit	“1”		0		
1					
0					
1		1			
/					
1					
0					
1					
0					
1					

0					
= 150 +					
1byte3551-2-3-4-1bit356357358359“1” 1bit0 1bit1					

1bit 363 364 365 366 "1"1bit-off"0" GVS 1bit-off"1" 1byte362					

1bit	1	0
1byte	100%	0%

6.8 “RTC function”

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
439	Ventilation controller	Fan automatic operation			1 bit	C	R	W	-	-	enable	低
440	Ventilation controller	External PM 2.5 value			2 bytes	C	-	W	T	U	concentration (µg/m³)	低
441	Ventilation controller	Fan speed			1 byte	C	-	-	T	-	percentage (0..100%)	低

6.9 “Ventilation controller”

	1				
	0				
PM2.5/VOC/CO2					
	ug/m3	ppm	0~999ug/m3	0~4000ppm	
	PM2.5			PM2.5	
1byte					
PM2.5/TVOC/CO2					

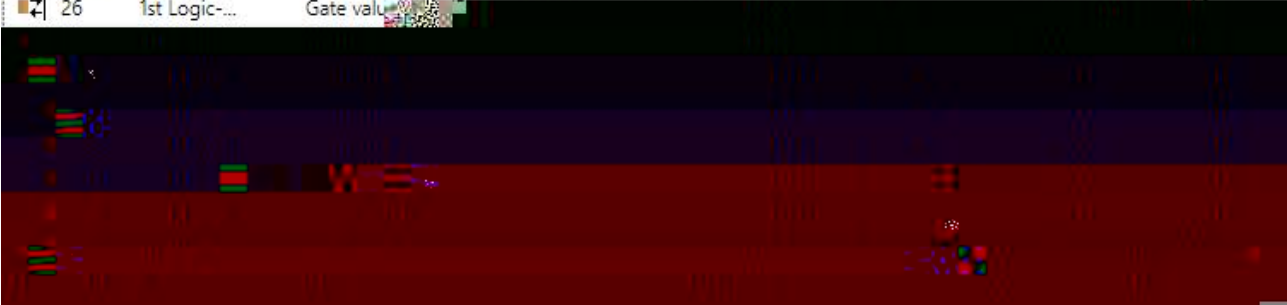
6.9“Ventilation controller”

序号	名称	对象功能	群组地址	长度	C	R	W	T	U	数据类型	优先级
26	1st Logic...	Input a		1 bit	C	-	W	T	U	boolean	低
27	1st Logic...	Input b		1 bit	C	-	W	T	U	boolean	低
28	1st Logic...	Input c		1 bit	C	-	W	T	U	boolean	低
29	1st Logic...	Input d		1 bit	C	-	W	T	U	boolean	低
30	1st Logic...	Input e		1 bit	C	-	W	T	U	boolean	低
31	1st Logic...	Input f		1 bit	C	-	W	T	U	boolean	低
32	1st Logic...	Input g		1 bit	C	-	W	T	U	boolean	低
33	1st Logic...	Input h		1 bit	C	-	W	T	U	boolean	低
34	1st Logic...	Logic result		1 bit	C	-	-	T	-	boolean	低

6.10.1 "AND/OR/XOR"

Input x					
"Description for logic function"				"1st Logic"	

6.10.1 "AND/OR/XOR"

	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
	26	1st Logic-...	Gate val...										
													

6.10.2 “Gate forwarding”

Input x					

6.10.2 “Gate forwarding”

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
26	1st Logic-...	Threshold value input			4 bit	C	-	W	-	U	dimming control	低
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
26	1st Logic-...	Threshold value input			1 byte	C	-	W	-	U	counter pulses (...)	低
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
26	1st Logic-...	Threshold value input			2 bytes	C	-	W	-	U	pulses	低
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
26	1st Logic-...	Threshold value input			2 bytes	C	-	W	-	U	2-byte signed value	低
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
26	1st Logic-...	Threshold value input			4 bytes	C	-	W	-	U	counter pulses (unsigned)	低
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
26	1st Logic-...	Threshold value input			2 bytes	C	-	W	-	U	temperature (°C)	低
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
26	1st Logic-...	Threshold value input			2 bytes	C	-	W	-	U	humidity	低
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
26	1st Logic-...	Threshold value input			2 bytes	C	-	W	-	U	lux (lux)	低
34	1st Logic-...	Logic result			1 bit	C	-	-	T	-	boolean	低

6.10.3 “Threshold comparator”

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
26												

“2x1bit --> 1x2bit” 2 1bit 2bit Input bit1=1, bit0=0--> Output 2bit=2

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
26	1st Logic...	Output 1bit-bit0			1 bit	C	-	W	-	U	boolean	低
27	1st Logic...	Input 1bit-bit1			1 bit	C	-	W	-	U	boolean	低
28	1st Logic...	Input 1bit-bit2			1 bit	C	-	W	-	U	boolean	低
29	1st Logic...	Input 1bit-bit3			1 bit	C	-	W	-	U	boolean	低
30	1st Logic...	Input 1bit-bit4			1 bit	C	-	W	-	U	boolean	低
31	1st Logic...	Input 1bit-bit5			1 bit	C	-	W	-	U	boolean	低
32	1st Logic...	Input 1bit-bit6			1 bit	C	-	W	-	U	boolean	低
33	1st Logic...											

“8x1bit --> 1x1byte” : 8 1bit 1byte Input bit2=1, bit1=1, bit0=1, 0--> Output

1byte=7

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
26												

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

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
26	1st Logic...	Input 1byte-low			1 byte	C	-	W	-	U	counter pulses (0..255)	低
27	1st Logic...	Input 1byte-high			1 byte	C	-	W	-	U	counter pulses (0..255)	低
34	1st Logic...	Output 2byte			2 bytes	C	-	-	T	-	pulses	低

“2x1byte --> 1x2byte” 2 1byte 2byte Input 1byte-low = 255 (\$FF), Input 1byte-high = 100

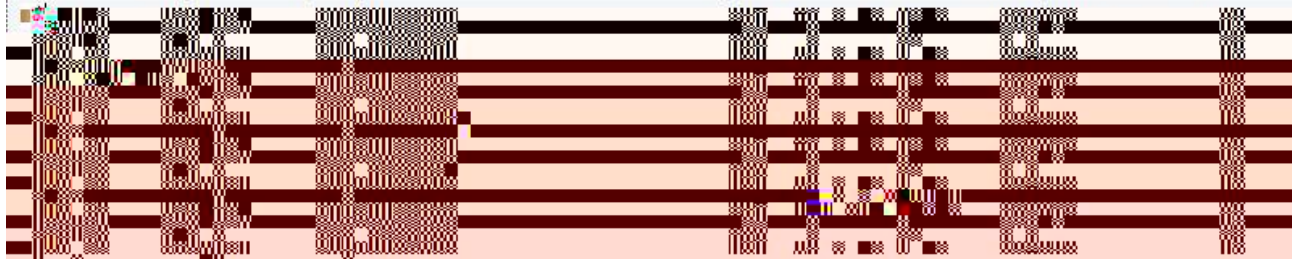
(\$64) --> Output 2byte = 25855 (\$64 FF)

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
26	1st Logic...	Input 2byte-low			2 bytes	C	-	W	-	U	pulses	低
27	1st Logic...	Input 2byte-high			2 bytes	C	-	W	-	U	pulses	低

“2x2byte --> 1x4byte” 2 2byte 4byte Input 2byte-low = 65530 (\$FF FA), Input 2byte-high

= 32768 (\$80 00)--> Output 2byte = 2147549178 (\$80 00 FF FA)

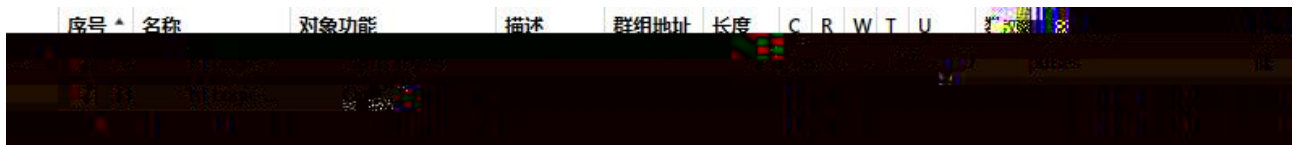
序号 ^	名称	对象功能	描述	群组地址	长度	C	R	W	T	U	数据类型	优先级
26	1st Logic-...	Input 1byte			1 byte	C	-	W	-	U	counter pulses (0..255)	低



“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

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
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“1x2byte --> 2x1byte” 1 2byte 2 1byte Input 2byte = 55500 (\$D8 CC) --> Output 1byte-low

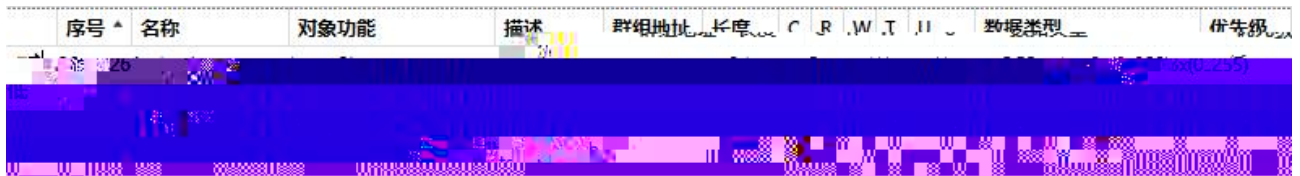
= 204 (\$CC), Output 1byte-high =216 (\$D8)

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
26	1st Logic-...	Input 4byte			4 bytes	C	-	W	-	U	counter pulses (unsigned)	低
33	1st Logic-...	Output 2byte-low			2 bytes	C	-	-	T	-	pulses	低
34	1st Logic-...	Output 2byte-high			2 bytes	C	-	-	T	-	pulses	低

“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)

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
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“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)

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
26	1st Logic-...	Input 1byte-low			1 byte	C	-	W	-	U	counter pulses (0..255)	低
27	1st Logic-...	Input 1byte-middle			1 byte	C	-	W	-	U	counter pulses (0..255)	低
28	1st Logic-...	Input 1byte-high			1 byte	C	-	W	-	U	counter pulses (0..255)	低
34	1st Logic-...	Output 3byte			3 bytes	C	-	-	T	-	RGB value 3x(0..255)	低

“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

6.7.4 “Format convert”

6.10.4 "Format convert"

"Gate input"					

6.10.5 "Gate function"

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
26	1st Logic...	Input			1 bit	C	-	W	-	-	switch	低
34	1st Logic...	Output			1 bit	C	-	-	T	-	switch	低

Input/Output - 1bit[On/Off]

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
26	1st Logic...	Input			1 byte	C	-	W	-	-	percentage (0..100%)	低
34	1st Logic...	Output			1 byte	C	-	-	T	-	percentage (0..100%)	低

Input/Output - 1byte[0..100%]

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
26	1st Logic...	Input			1 byte	C	-	W	-	-	counter pulses (0..255)	低
34	1st Logic...	Output			1 byte	C	-	-	T	-	counter pulses (0..255)	低

Input/Output - 1byte[0..255]

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
26	1st Logic...	Input			2 bytes	C	-	W	-	-	temperature (°C)	低
34	1st Logic...	Output			2 bytes	C	-	-	T	-	temperature (°C)	低

Input/Output - 2byte[Float]

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
26	1st Logic...	Input			2 bytes	C	-	W	-	-	percentage (0..100%)	低
34	1st Logic...	Output			2 bytes	C	-	-	T	-	percentage (0..100%)	低

Input/Output - 2byte[0..65535]

6.10.6 "Delay function"

