

K-BUS®

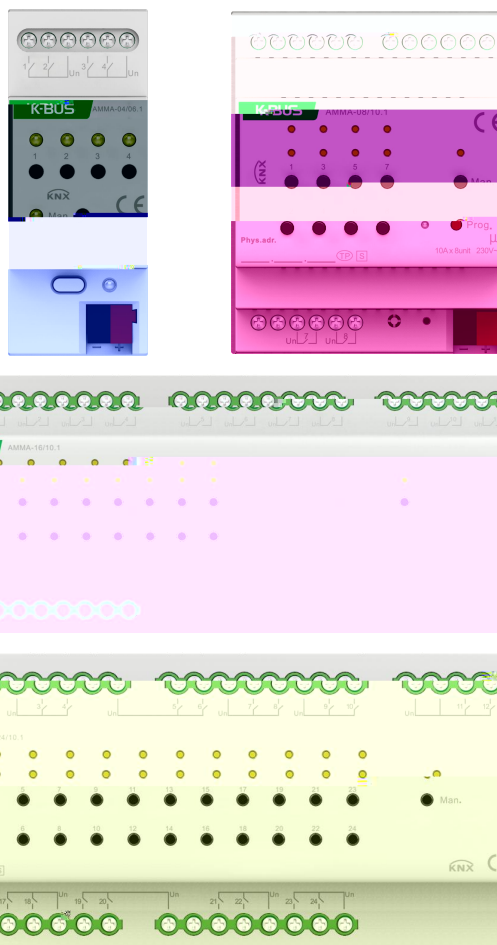
Nvmujgvodujpobm Bduvbups- 509027035.Gpme`W2/9

BN NB.15017/2

BN NB.19021/2

BN NB.27021/2

BN NB.35021/2



LOY0FJC

注意事项

- 1、请远离强磁场、高温、潮湿等环境；



- 2、不要将设备摔落在地上或使之受到强力冲击；



- 3、不要使用湿布或具挥发性的试剂擦拭设备；



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DC/AC

4 8 16 24

1 AC

EN 60 715

35

EIB

--

24

♦

♦

0

♦

♦

♦

9

2czuf

◆

◆

◆

2cju03cju

◆

◆

◆

◆

--- BD0ED

12

AC 230 V AC 370W 4/8-Fold 1000W(16/24-Fold)

6 DC

AC DC

AC

DC

◆

0

◆

0

◆

1 211&

◆

1 211& Wfofujbo Cnjoe

◆

9 2czuf

◆

◆

◆

◆

Wfofujbo Cnjoe Ti vuufs

EV5®

K-

NX/E

3

2

3

4

♦

♦

♦

♦

♦

♦

♦

♦

0

2

4

3point, open and close

PWM

continuous, PWM

2

2 state-ON/OFF

□ □

3

◆

◆

◆

◆

◆ 0

◆

◆

knxprod

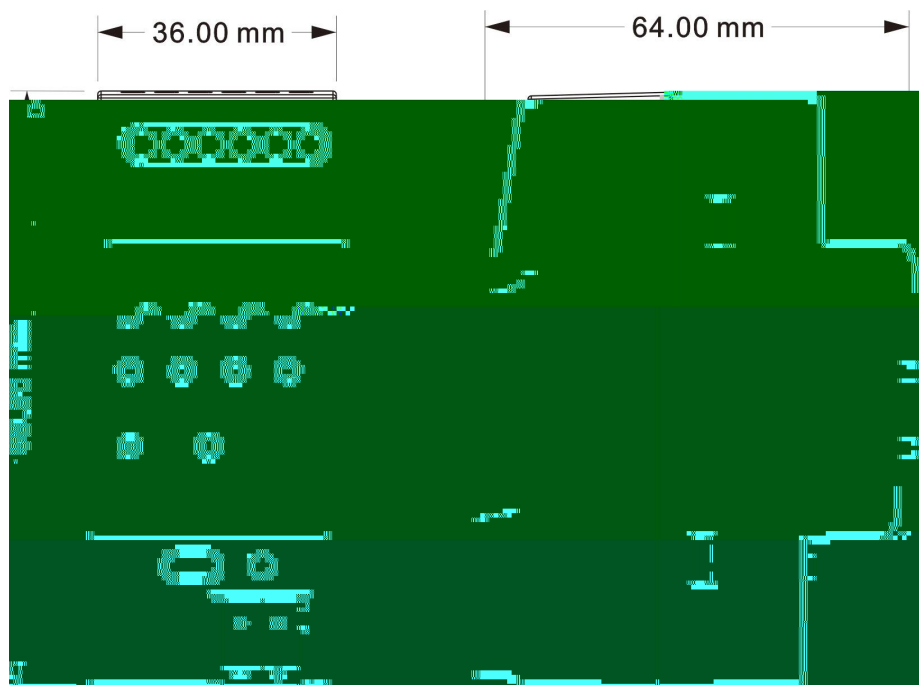
ETS (ETS4

	LOY	32 j 41W ED	LOY	
	KNX	<12mA		
	KNX	<20mA		
	KNX	<360mW		
LOY			0	1/9 n n Å
		0.2-2.5mm ²	0.4N-m	4/8-Fold
		0.*.5		

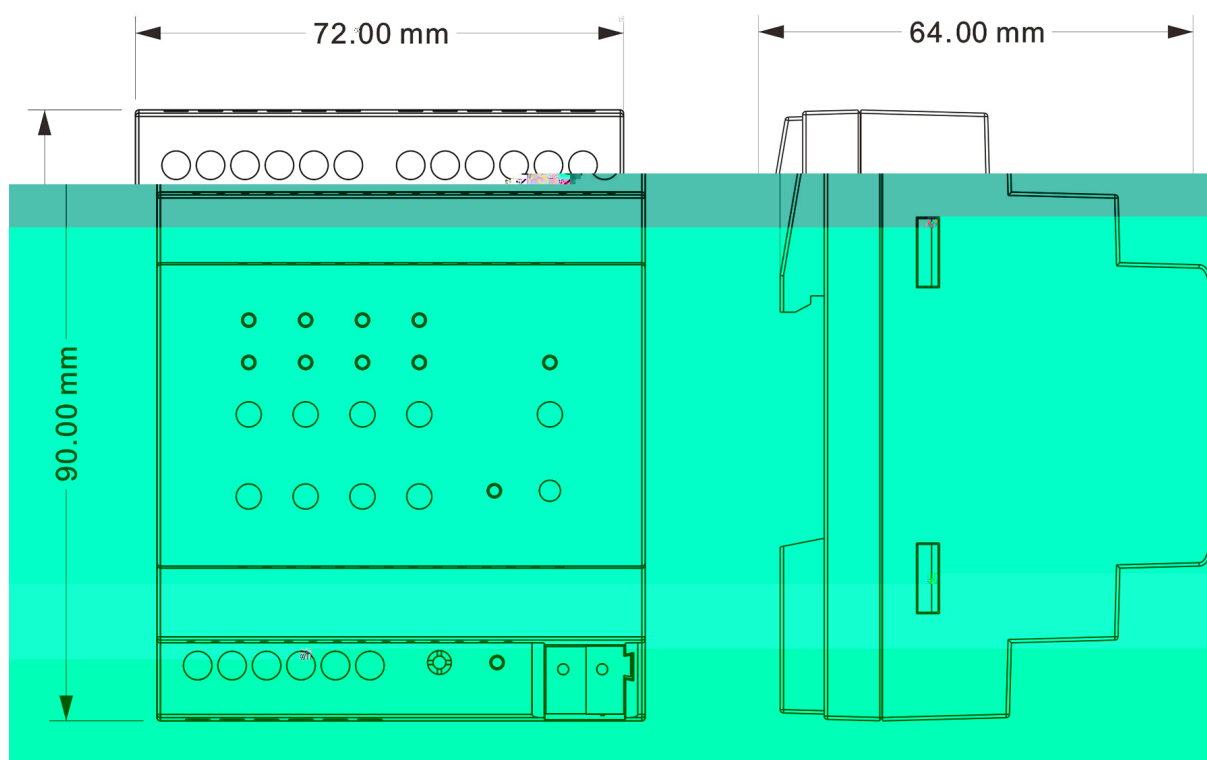
	/	36mmÖ90mmÖ64mm (AMMA-04/06.1) / 0.15KG 72 mm Ö 90mm Ö 64mm (AMMA-08/10.1) / 0.2KG 216 mmÖ90mmÖ64mm(AMMA-16/10.1) / 0.6KG 216 mmÖ90mmÖ64mm (AMMA-24/10.1) / 0.7KG
	24 /12 AC /6 DC /6 /12 2 /6 4	
	U _n	230/277V AC 50/60Hz 30V DC
	I _n AMMA-04/06.1	6A/70uF LED 100W
	I _n AMMA-08/10.1	10A/70uF LED 100W
	I _n AMMA-16/10.1	10A/105uF LED 200W
	I _n AMMA-24/10.1	10A/105uF LED 200W
	AMMA-04/06.1 -08/10.1)	120A/10ms
	AMMA-16/10.1 -24/10.1)	300A/2ms
	AMMA-04/06.1 -08/10.1)	16A/240V AC
	AMMA-16/10.1 -24/10.1)	20A/250V AC
		> 1 x 10 ⁶
		>5 x10 ⁴
		100mA 5V DC

Multifunctional Actuator 4/8/16/24-Fold	532	1000	1000

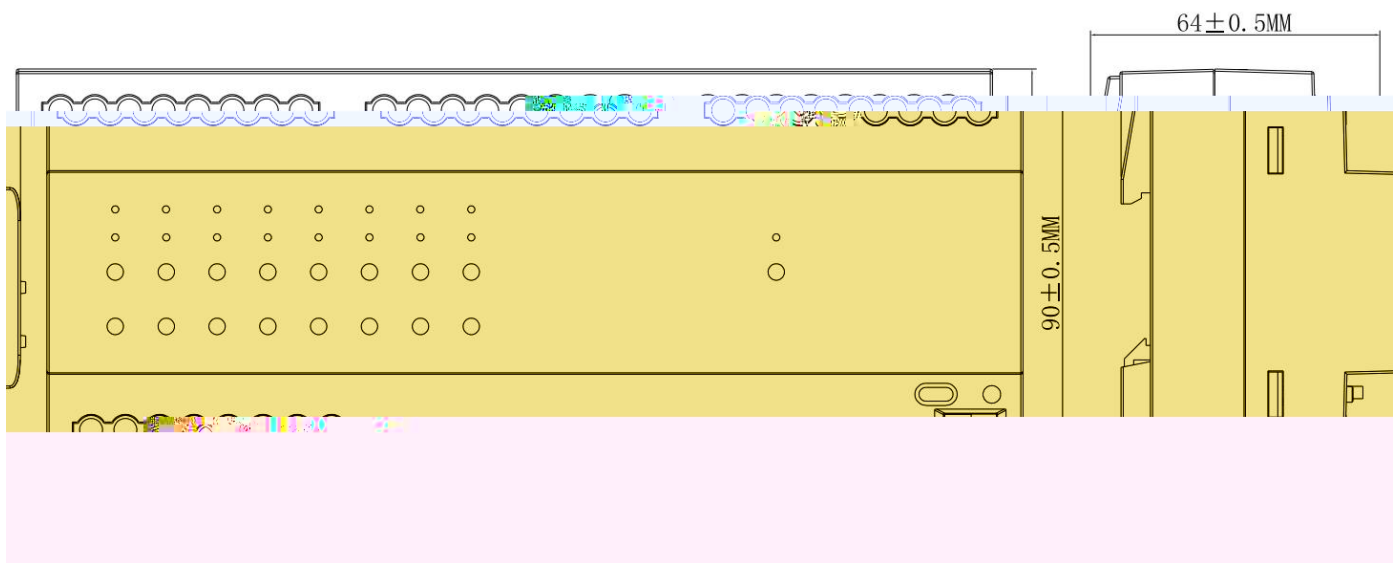
4/2/



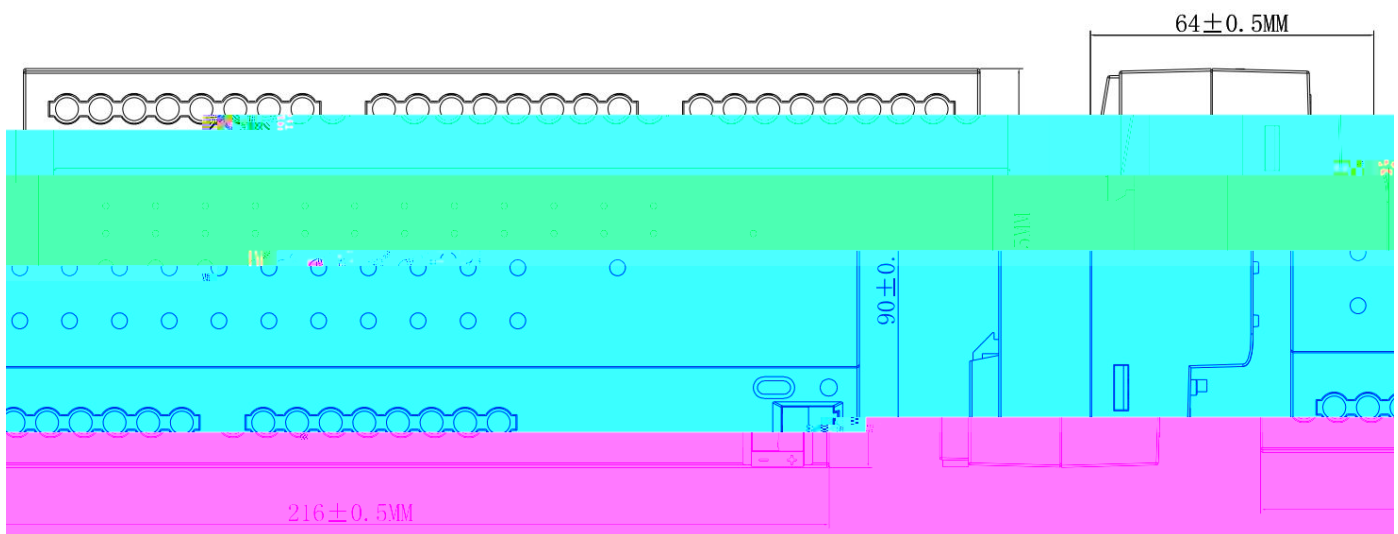
AMMA-04/06.1



AMMA-08/10.1



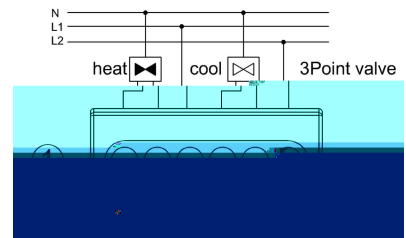
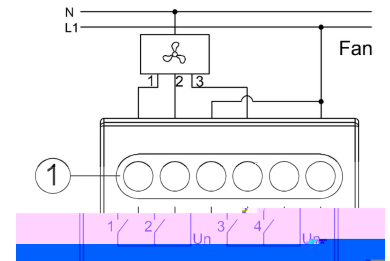
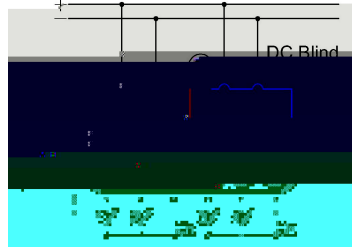
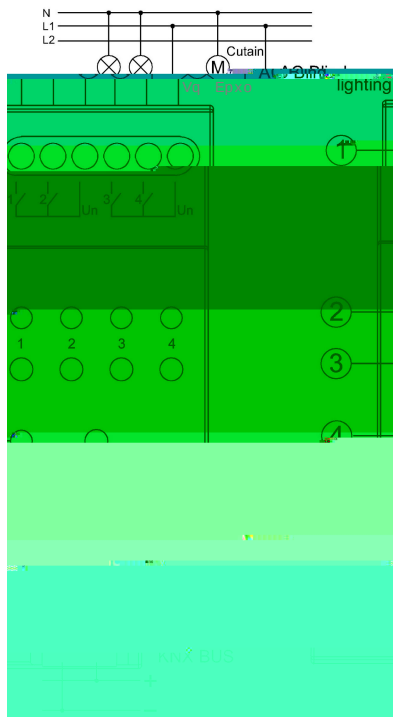
AMMA-16/10.1



AMMA-24/10.1

4/3/

4/3/2 BNNB.15017/2



:

1

/

AC/DC

(1)

(2)

/

/

(DC

(3) (4)

)

(1)

1

(2)

2

(3)

3

2

(1)

/

/

(

/) (2)

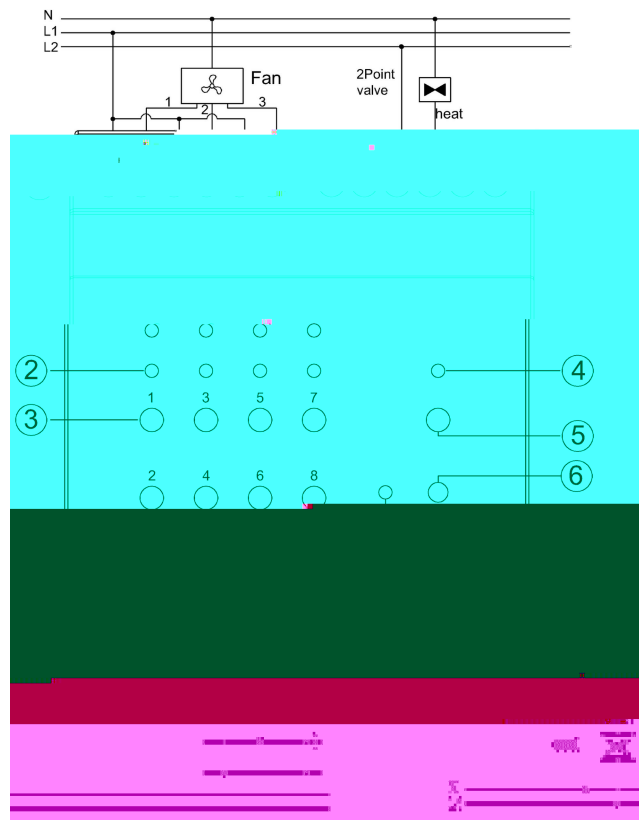
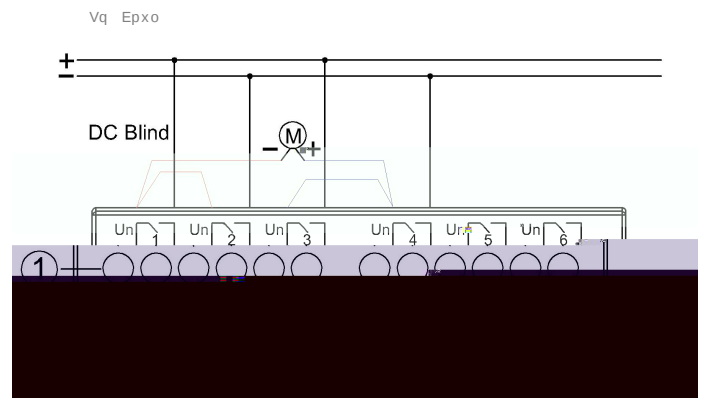
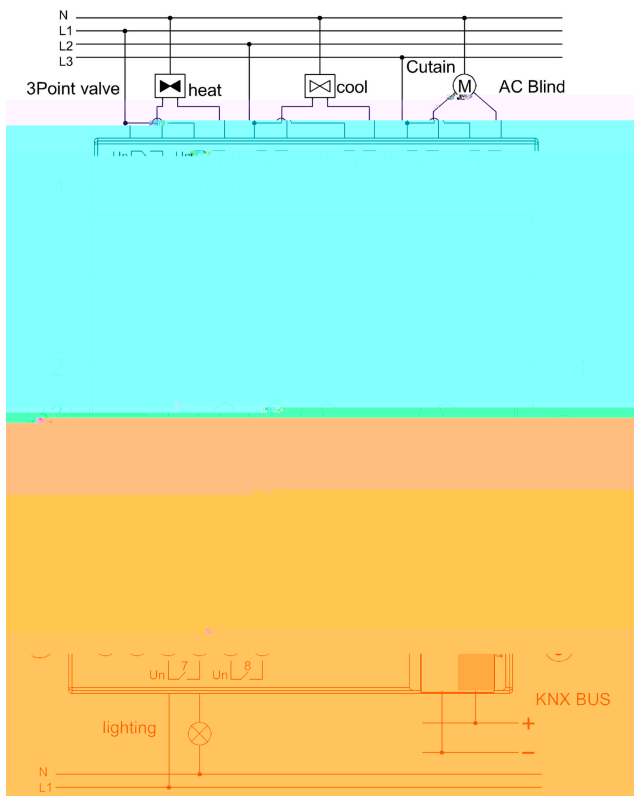
4

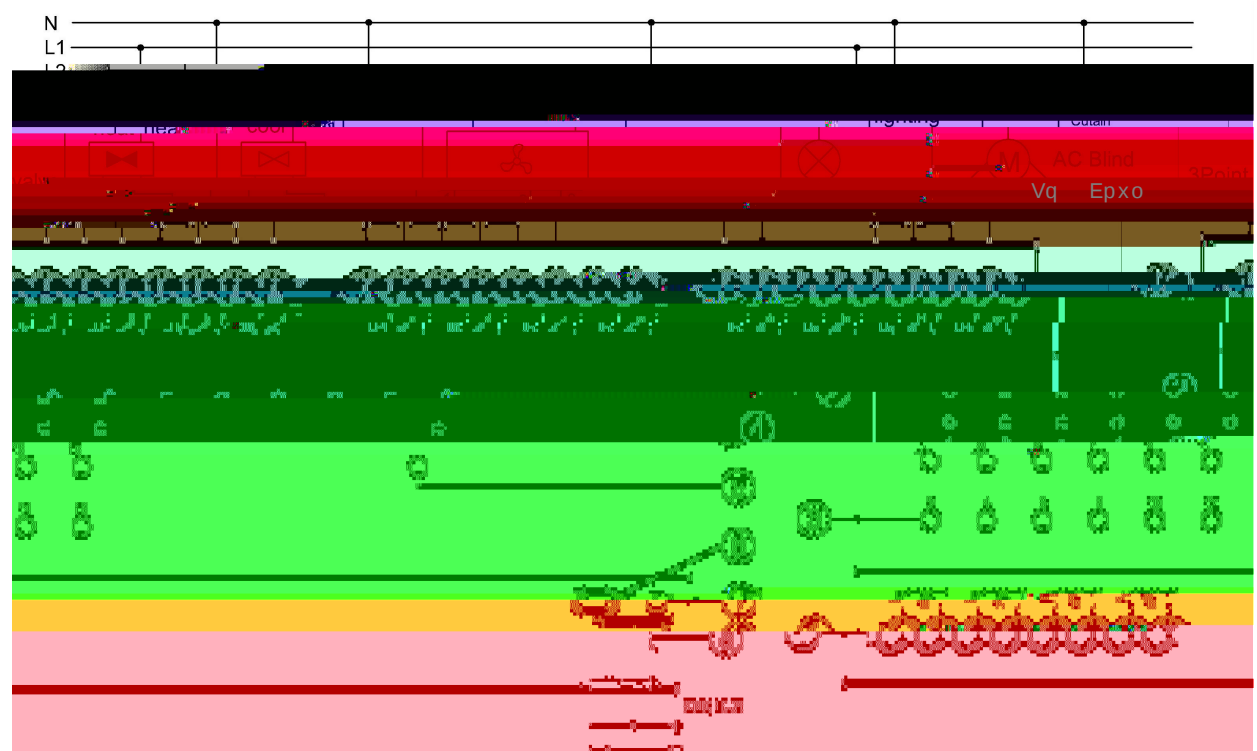
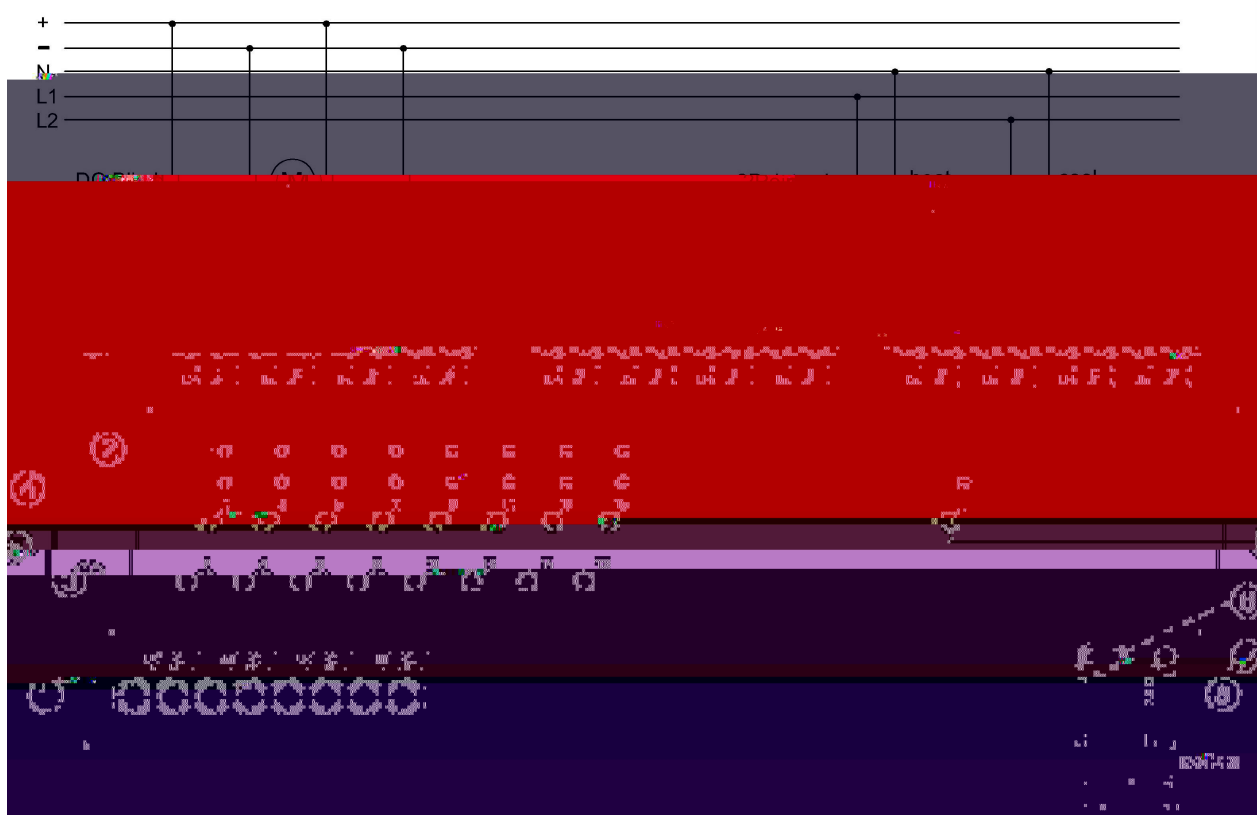
(1)

(3)

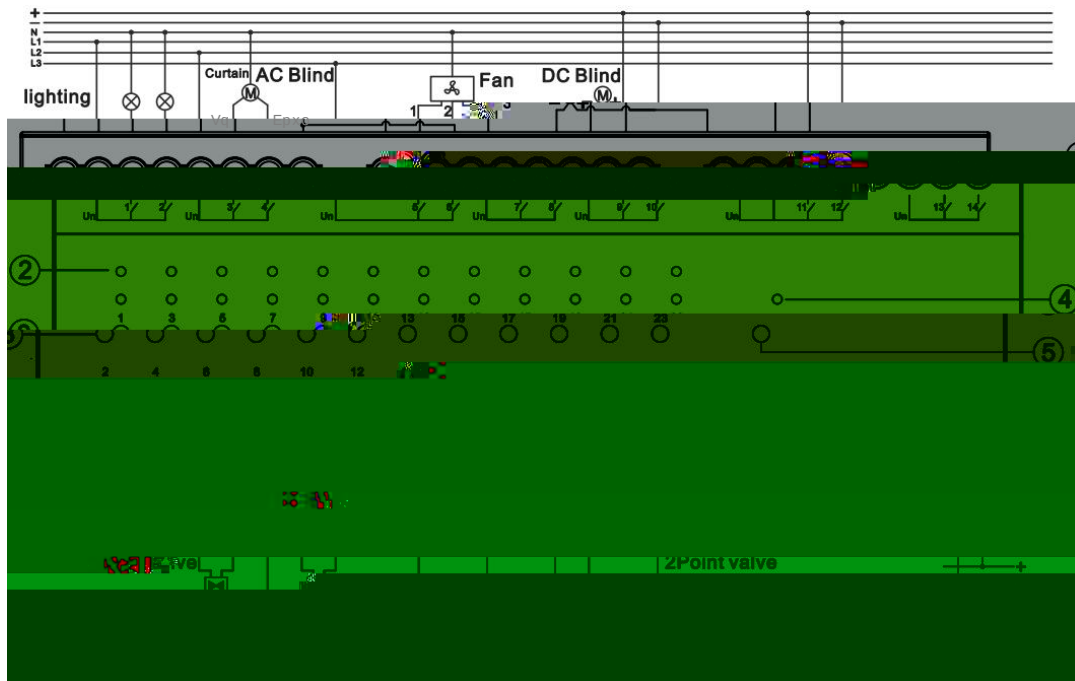
	(2)	(4)	3Point valve	1	3	2	4
0	Nbo/						
	/						
	MFE						
LOY							
2/							
3/							
		5/4/7	5/5	5/7	5/8/3/3	5/9/2/4	
4/	BD	ED					
9			2030405		6		
			6070809		5		
35			2030405		607		
			6070809		4050:021		
			:021022023		809024025		
			24025026027		22023028029		
			2802902:031		26027032033		
			32033034035		2:031		
5/	9	27	35	5			

4/3/3 BNNB.19021/2





4/3/5 BNNB.35021/2



FUT

ETS

5/2/

ÖH f o f s b m x

"General"

4.1

General	Operation delay after power voltage recovery(5...250s)	5
Channel function	Sending cycle of "In operation" telegram [1..240,0=inactive]s	1
Output 1	Limit number of send telegram	☐ NO ☒ YES
O1: Function	Period	100ms
O1: Time	Max.number tele.within a period [1..255]	100
Central control		

4.1

General

0...240s 0=

Mj n ju ov n cfs pg tfoe uf fhsb n

*Zft**Op*

"Yes"

"Period"

"Max. Number of tele. within a period [1...255]"

Qfsjpe

*211 n t**611 n t**21 n jo*

40

Nby/ov n cfs uf f/ xju i jo b qfsjpe \2//366^

2Ú366



E f m b z u j n f \21///7111^t

21//7111

5/3/

ÖDi boofm gvdujpoj

Channel function

4.2

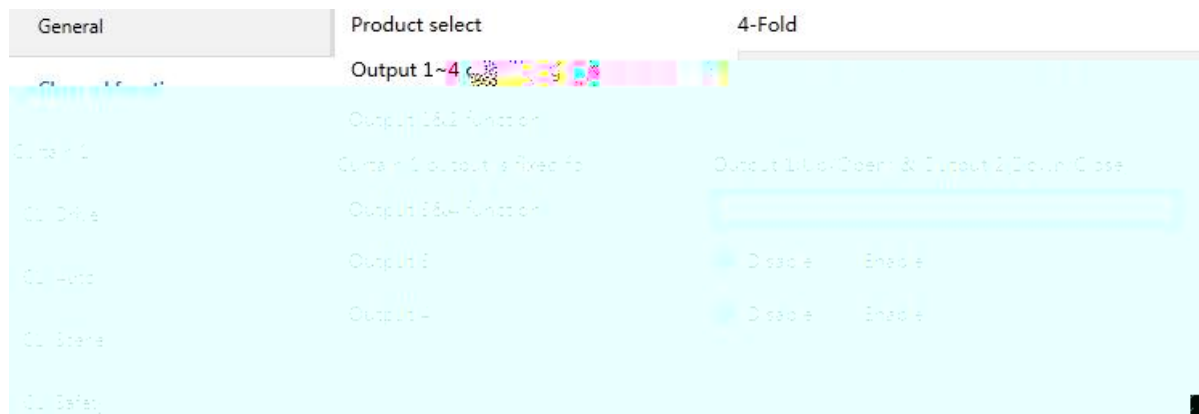
4

8

16

24

4



4.2

Channel function

Qspevdu t f f d u

5.Gpne

9.Gpne

27.Gpne

35.Gpne

Ejtbcnf

Txjud i 0Dvsubjo BD0 I fbujoh0Dppmjoh03.qjqf 0 0 0 03

Dvsubjo ED

Gbo dpouspm

Wbmwf dpouspm 5.qjqf 5

1~4

Pvuqvu 2 i 5	Txjud i 0Dvsubjo BD0 I fbujoh0Dppmjoh03.qjqf			Dvsubjo ED	Gbo dpouspm	Wbmwf dpouspm 5.qjqf t
	Txjud i	Dvsubjo BD	I fbujoh0Dppmjoh 0 3.qjqf			
Pvuqvu 2	Pvuqvu 2	Dvsubjo 2	Wbmwf 2 Pvuqvu 2 '3- jg 4qpjou- pqfo boe dmp t f	Dvsubjo ED 2	Gbo 2; gbo tqffe 2	Wbmwf 2; I fbu Pvuqvu 2 '3- jg 4qpjou- pqfo boe dmp t f
Pvuqvu 3	Pvuqvu 3				Gbo 2; gbo tqffe 3	
Pvuqvu 4	Pvuqvu 4	Dvsubjo 3	Wbmwf 3 Pvuqvu 4 '5- jg 4qpjou- pqfo boe dmp t f		Gbo 2; gbo tqffe 4	Wbmwf 2; Dppm Pvuqvu 4 '5- jg 4qpjou- pqfo boe dmp t f
Pvuqvu 5	Pvuqvu 5					

HVAC

2

4

Gbo dpouspm

Dvsubjo 2 pvuqvu jt gjyfe gps

Pvuqvu 2) Vpfo* ' Pvuqvu 3) Epxo0Dmpt f*

1

Output 1

Output 2

1

2

1

2

Fyufsobm ED, joqvu

Pvuqvu 2 ' Pvuqvu 4

Fyufsobm ED. joqvu

Pvuqvu 3 ' Pvuqvu 5

Pvuqvu Esjwfs

Vo

Output 1

Output 3

1

3

Output 2

Output 4

2

4

Un

Gbo 2 pvuqvu jt gjyfe gps

2mfwm;2<3mfwm;2'3<4mfwm;2'3'4

1

Output 1

2

Output 1

Output 2

3

Output

Output 3

Un

Output 3 Output 4

Output 3 Output 4

Un

Wbmf 2 pvuqvu jt gjyfe gps Pvuqvu 2

Pvuqvu 2 ' 3- jg 4 qpjou- pqfo boe dmp t f

HVAC

Output 1

Output 1

Un

Output 1 Output 2

Output 1 Output

2

Un.

5/4/

..Txjud i bduvbups

24

5/4/2

ÖTxjud i bduvbups; Pvuqvu Yx

ÖSwitch actuator: Output X"

4.3

General	Work mode of the channel is		☒ Switch actuator
Channel function			☐ Heating actuator(without controller)
Output 1	Central function of channel	☐ Disable ☒ Enable	
O1: Function	If bus: recovery, contact is	Unchange	
O1: Time	If bus failure, contact is	Unchange	
O1: Logic	After downloading, contact is	☒ Open As bus recovery	
	Object value of "switch" after bus recovery	☐ 0 ☒ 1	



4.3

Output X: Switch actuator

Xpsl npef pg u f d i boof i jt

Txjud i bduvbups

*I fbujoh bduvbups)xju i pvu dpouspmm fs**

Switch Actuator

"Switch actuator"

Heating actuator without controller

4.4

Dfousb gvoduipo pg d i boof i

Ejtbcmf

Fobcmf

Central control for all switch

Jg cvt sfdpwfsz- dpoubdu jt

Vodibohf

Pqfo

Dmptf

Bt cfgpsf bt cvt gbjm

“Unchange”

“Open”

“Close”

“As before as bus fail”

Jg cvt gbjrvsf- dpoubdu jt

Vodibohf

Pqfo

Dmptf

“Unchange”

“Open”

“Close”

Bgufs epxorpejoh- dpoubdu jt

Pqfo

Bt cvt sfdpwfsz

“Open”

“As bus recovery”

“If bus recovery, contact is”

Pckfdu Wb-vf pg txjudi bgufs cvt sfdpwfsz

"input 0"

"Switch"

"0" "1" :

1

2

Tfuuf sfqz npef pg txjudi tubvt

Sftqpoe bgufs sfbe pomz

Sftqpoe bgufs di boh f

"Respond after read only"

"switch status"

"Respond after change"

"switch status"

Pckfdu Wb-vf pg txjudi tubvt ;

1>dpoubdu dmp t f< 2>dpoubdu pq fo

2>dpoubdu dmp t f< 1>dpoubdu pq fo

"0=contact close ; 1=contact open"

"switch status"

"0"

"1"

"1=contact close; 0=contact open"

txjudi tubvt

Dpoubdu qptjupo jg uf-f/ Wb-vf jt 2) 1 jt pq qptjuf pg 2 jg di boh f e

"switch"

"input"

0"

"switch"

"input 0"

Pqfo

Dmptf

"Open"

1

0

"Close"

1

0

joqv 1

txjud i

joqv 1

Tqfdjb gvduppo pg di boof

"Enable"

"Ox:Function"

, 4.4

Ejtbcf

Fobcf

General	Function of "Time"	☒ Disable ☐ Enable
Channel function	Function of "Logic"	☒ Disable ☐ Enable
Output 1	Function of "Scene"	☒ Disable ☐ Enable
O1: Function	Function of "Forced"	☒ Disable ☐ Enable
	Function of "Operation hours counter"	☒ Disable ☐ Enable

4.4

Ox Function

4.4“Ox: Function”

“Function of “time””

“Enable”

4.5

“Enable time function”

General	Type of time function	Delay
Channel function	Delay for switch on: --(0...240min)	0
Output 1	--(0...59s)	0
O1: Function	Delay for switch off: --(0...240min)	0
	--(0...59s)	0
O1: Time		
O1: Logic		
O1: Scene		

4.5

Ox:Time-Delay

Uzqf pg ujn f gvodlipo

Efnbz

Gmbt i joh

Tubjsdbt f

5/4/3/2

ÖE fmbz x

"Delay"

4.5

"Delay function"

E fmbz gps t xjud i po;)1///351 n jo*0)1///6: t*

1 351

1 6:

E fmbz gps t xjud i pgg;)1///351 n jo*0)1///6: t*

1 351

1 6:

5/4/3/3

ÖGmbt i joh x

"Type of time function"

"Flashing"

4.6

General	Type of time function	Flashing
Channel function	Delay for switch on: --(0...240min)	0
Output 1	--(0...59s)	0
	Delay for switch off: --(0...240min)	0
	--(0...59s)	0
OT: Time	Number of ON impulses (1...255, 0 = no limit)	1
OT: Logic	Contact position after flashing	Unchanged
OT: Scene	Control mode of flashing	Start with "1", Stop with "0"

4.6

Ox:Time-Flashing

Flashing

"Flashing function"

"Delay for

switch on"

"Delay for switch off"

Efmbz gps t xjud i po;)1///351 njo* -)1///6: t*

1///351 njovuft

1///6: tfdpoet

Efmbz gps t xjud i pgg;)1///351Njo* -)1///6: t*

1///351 njovuft

1///6: tfdpoet

Ovncfs pg PO jnqvttfe)2///366 - 1>op ijnjufe*

1...255 0 /

1///366

Dpoubdu qpttjuppo bgjufs gbt i joh

Vodibohf

Pqfo

Dmptf

Dpousp npef pg gbt i joh

Tubsu xjui 2 - Tupq xjui 1

Tubsu xjui 1 - Tupq xjui 2

Tubsu xjui 102 - dbo opu cf tupq

"Start with '1' Stop with '0'" "1" "0"

"Start with '0' Stop with '1'" "0" "1"

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

5/4/3/4

ÖTubjsdbt f x

"Type of time function"

"Staircase"

4.7

General	Type of time function	Staircase
Channel function	Duration of staircase lighting: -- (0...1000min)	1
Output 1	--(0...59s)	0
O1: Function	Control mode of staircase lighting	Start with "1", Stop with "0"
1: Time	During the lighting time, if receive "start" telegram	Restart duration of staircase lighting

4.7

Ox:Time-Staircase

"Staircase function"

Evshjppo pg tubjsdbt f jh iujoh .)1///2111 njo* .)1///6: t*

1 2111

1 6:

Dpousp npef pg tubjsdbt f jh iujoh

Tubsu xjui 2 Tupq xjui 1

Tubsu xjui 2 opsfbdjppo xjui 1

Tubsu xjui 102 - dbo opu c f tupq

Tubsu xjui 2 - PGG xjui 1

"Start with '1', Stop with '0'"

"1"

"0"

"Start with '1', no reaction with '0'"

"1"

"0"

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

"0" "1"

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

"1"

"0"

Evshjoh uif njh iujoh ujn f -jg sdfjwf uif tusbv uf fhsbn

Sf tusbv evsbujpo pg tubjsdbt f njh iujoh

Fyufoe evsbujpo ujn f

Jhopsf uif tusbv uf fhsbn

"Restart duration of staircase lighting"

"Staircase

function"

"Extend duration time",

"Staircase function"

60

20

40+60=100

100

"Ignore the 'start' telegram"

,

"Staircase function"

5/4/4

ÖPy; Mphjd×

4.4 "Ox: Function"

"Function of "logic" "

"Enable"

4.8

General	Enable input 0	☐ Disable ☒ Enable
Channel function	Input 0 reverse	☒ NO ☐ YES
Output 1	The input 1 of logic	☐ Disable ☒ Enable

4.8

Ox Logic

2

"Switch"

"1"

"0"

"Logic 1"

"Switch"

"Logic 2"

Fobcñf joqvñ 1

"input 0"

"input 0"

"Switch"

Ejtbñf

Fobcñf

"Input 0"

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

1 "Input 1" "Switch" "Input 2"

2

3

4 (GATE) Input1 Input0

Input2

Sftvno sfwst f

"yes"

"no"

Op

Zft

K-BUS®

KNX/E

Pwfsxsjuf tdf of tupsfe wbrvft evsjoh ep xorpbe

Ejtbcnf

Fobcnf

Disable

Enable

dibooft jt bttjhofe up)2///75-1> op bttjhon fou*

64

8

Tdfof 2/// Tdfof 75 1>op bttjhon fou

2 j 75

1 j 74

ÖTuboebse pvuqv wbrvf jtx

Pqfo

Dmptf

4.4 "Ox: Function"

"Function of "Forced" "

"Enable"

4.10

General

Channel function

Output 1

Function of "Time"

Function of "Logic"

Function of "Scene"

Function of "Forced"

☐ Disable
☒ Enable

☐ Disable
☒ Enable

☐ Disable
☒ Enable

☐ Disable
☒ Enable

O1: Function

O1: Time

O1: Logic

Force operation type

Function of "Operation hours counter"

☐ 1Bit
☒ 2Bit

☒ Disable
☐ Enable

4.10

Ox Forced

"Forced output"



2cju

3cju

"1bit", "Forced output" "1" "0"

"2bit", "Forced output"

ÖGpsdf e pvuqvü Yx	
00b 0 01b 1	
10b 2	OFF
11b 3	ON

Delay/Flashing/Staircase

force

force

Dpoubdu qptjupo jg gpsdfe pqfsbupo

"1bit"

*Vodibohf**Pqfo**Dptf*

Unchange

Open

Close

,

4.4 "Ox: Function"

"Function of "Operation hours

counter" " "Enable"

4.11

General	Function of "Time"	☐ Disable ☒ Enable
Channel function	Function of "Logic"	☐ Disable ☒ Enable
Output 1	Function of "Scene"	☐ Disable ☒ Enable
O1: Function		
O1: Time	Function of "Forced"	☒ Disable ☐ Enable
O1: Logic	Function of "Operation hours counter"	☐ Disable ☒ Enable
O1: Scene	Object datatype of "Operation hours counter"	☐ 2 byte Value in h(DPT7.007) ☒ 4 byte Value in s(DPT13.100)
	Cyclically send counter value in h[0...100] (0 = not send, only for reading)	0

4.11 Ox Operation hours counter

ÖPckfdu ebubuzqf pg 0 Pqfsbujpo i pvst dpvoufsx

3 czuf Wbmvf jo i)EQU 8/118*

5 czuf Wbmvf jo t)EQU 24/211*

2 byte Value in h (DPT 7.007)

2 byte

4 byte Value in s (DPT 13.100)

4 byte

Dzdjdbnz tfoe dpvoufs wbmvf jo i\1/211^)1>opu tfoe- porz gps sfbejoh*

1.211

0

1-100

1

100

Object of switch and operation hours counter

2byte

4byte

s

)Txjud i bdvubps*

2

gpsdf pqfsbujpo

3

4

5/5/ .. l fbujoh bduvbups) xju i pvu dpouspmm fs*

Work mode of the channel is

Heating actuator (without controller)

4.12

1bit

1byte

1bit

On-off control value

1byte

Control value

(Continuous)

0%/OFF

100%/ON

0~100%

x%

General

Channel function

Work mode of the channel is

Valve type

Valve position during

Switch actuator

Heating actuator(without controller)

4.12

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

General

Channel function

Output 1

Work mode of the channel is

Valve type

If bus failure, control is

If bus recovery, valve position

Switch actuator

Heating actuator(without controller)

Normal (de-energised closed)

Inverted (de-energised open)

Unchange

0%[Closed]

Valve position during

4.13

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

Wbwwf uzqf

*Opsnbw)ef. fofshjt fe dmpf**

*Jowfsufe)ef. fofshjt fe pqfo**

Normal(de-energised closed)

Inverted(de-energised open)

Jg cvt gbjrvsf-dpoubdu jt

Vodibohf

Pqfo

Dmpf

"Unchange"

"Open"

"Close"

Jg cvt sfdpwfsz-wbwwf qptjuppo

1&|Dmpf^A

21&|37^A

31&|62^A

///

:1&|341^A

211&|Pqfo^A

20% PWM

100s 1 40s

20s, 80s

QXN dzd f uj n f gps dpoujovpvt\71//76646`t

(PWM)

71//76646

2cju

)QXN*

Dpousp uf fhsbn jt sdfjwfe bt

*2cju)po.pgg dpousp ps QXN**

*2czuf)Dpoujovpvt**

"1bit"

PWM

PWM

"1byte"

0 ~255

0% .. 100%

"

Continuous-action control " 0

100%

0%...100%

.. Sfqz ui f tubvvt gps dpoujovpvt dpousp

1byte Continuous

1bit 1Byte

Op sfqz

*Zft-1&>1 pui fsxjtf 02x)2 cju**

*Zft-1&>2 pui fsxjtf 01x)2 cju**

*Zft- dpoujovpvt dpousp wbnvf)2 czuf**

Sfqrz uif tubvft gps dpoubdu

Op sfqrz

Zft-1>dpoubdu dmpft f< 2>dpoubdu pqfo

Zft-2>dpoubdu dmpft f< 1>dpoubdu pqfo

"No reply"

"0=contact close ; 1=contact open"

"status of contact"

"0"

"1"

"1=contact close; 0=contact open"

tubvft pg dpoubdu

Gvoduppo gps n pojupsjoh jt

Ejtbcmf

Fobcmf

Function for monitoring is

Enable

.. Dzdmjd n pojupsjoh pg uifsnptubu\1//76646^t

1//76646

.. Wbmwf qptjujpo evsjoh gbvmm

PWM

1&IDmptfe^

21&I37^

///

211&IPqfo^

Vodibohf

20% PWM 100s 1 40s

20s, 80s

Unchange

.. Tfoe pckfdu Sfqpsu gbvmmxjt

Ejtbcnf

Fobcnf

Enable

Report fault

Report fault

1

0

Gvdujpo pg gpsdfe pqfsbujpo jt

Ejtbcnf

Fobcnf

.. Wbmwf qptjujpo evsjoh gpsdfe pqfsbujpo

PWM

1&IDmptfe^

21&I37^

///

211&IPqfo[^]

Vodibohf

Unchange

40%

60%

60%

monitor

I fbujoh bduvbups

2

3

5/6/)BD*

AC

12

5/6/2

ÖDvsubjo Y; Wfo fujbo Cmjoe x

"Curtain X"

4.14

General	Config channel function as	☒ Venetian Blind ☐ Shutter
Channel function	Motor type	☒ AC-motor ☐ Dry contact-motor
Curtain X	If bus recovery, position is	Unchange
C1: Drive	If bus failure, position is	Unchange
C1: Auto.	After reference movement, Position is	Move to saved position
C1: Scene	Position of slat after arriving on lower end position	100%
C1: Safety	When blind is under end position, up/down object function is	☒ Disable ☐ Enable
	Set response mode for position	☒ Respond after read only ☐ Respond after change
	Central function of channel	☒ Disable ☐ Enable

4.14

Curtain X

Wfo fujbo Cmjoe

Tivuu fs

"Venetian Blind"

"Shutter"

"Venetian Blind"

AC-motor

Dry contact-motor

Esjwf qvmt f ujn f\2//61^+211 n t

Dry contact-motor

2//61

0jg cvt sfdpwfsz- qptjupo jt*

Vod i boh f

Vq

Epx o

Tupq

“Unchange”

“Up”

“Down”

“Stop”

61&

0jg cvt gbjvsvf- qptjupo jt*

Vod i boh f

Vq

Ερχο

Tupq

“Unchange”

“Up”

“Down”

“Stop”

tupq

tupq

β ρ



□ □ □ □ □

00

• • • • •

Page 10 of 10

Page 10

செய்தியை அறிந்தவர்கள்

И Б

K-BUS®

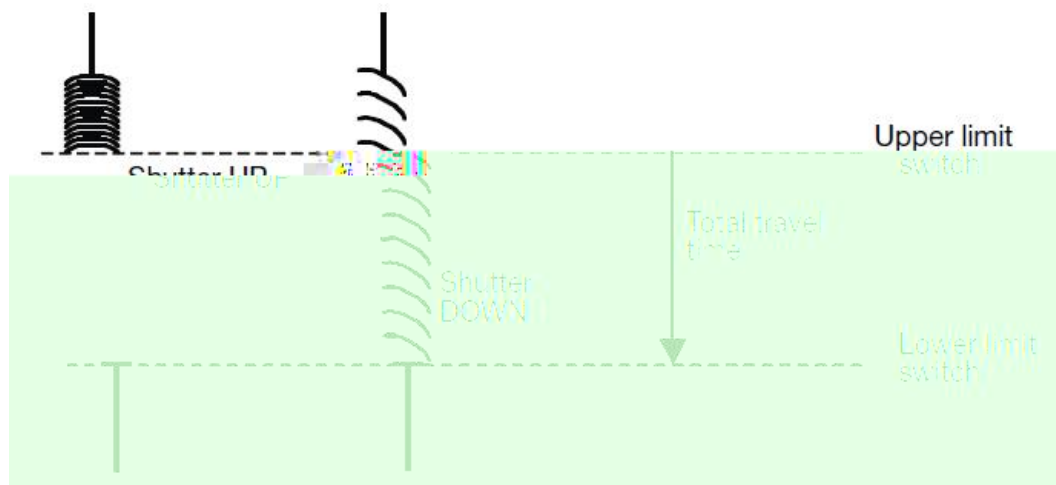
KNX/EIB

5/6/2/2

ÖDy; Esjwf x

"Cx: Drive"

4.15

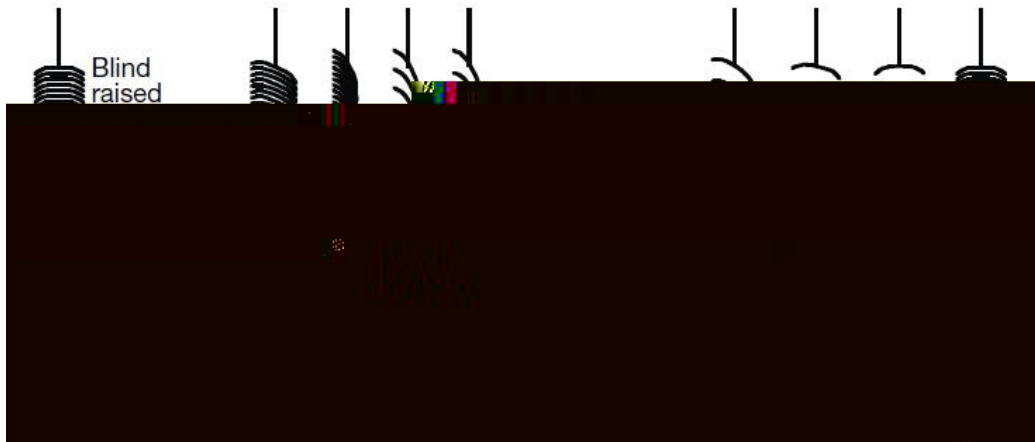


0Ef1bz uj n f gsp n t xjud i po up n pwjoh \1//311'^+21 n t x

/

1//311

0Evsbujpo pg tibi beivt n foit \21U361'^+21 n t x



0Upubn usbwfr ujn f pg Tibu 1U211& jo \21U361^+21 n t×

“

” “ ”

“Slat adj./Stop”

/

0Qbvt f po d i boh f jo ej sfd u j po \6U366^+31 n t×

0Beejupobn usbwfr ujn f jo vqxbse ej sfd u j po \1//366^+1/2 t×

0%

1&

GVS[®]

K-BUS[®]

KNX/EIB

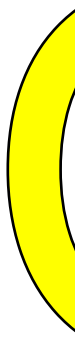
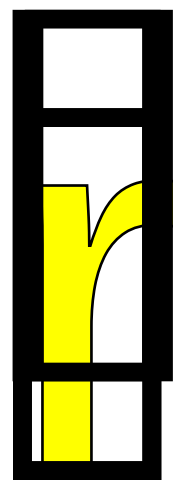
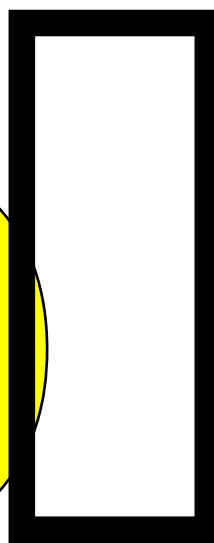
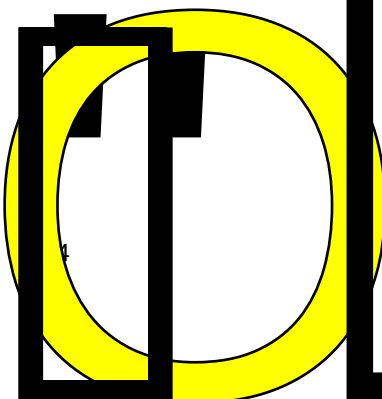
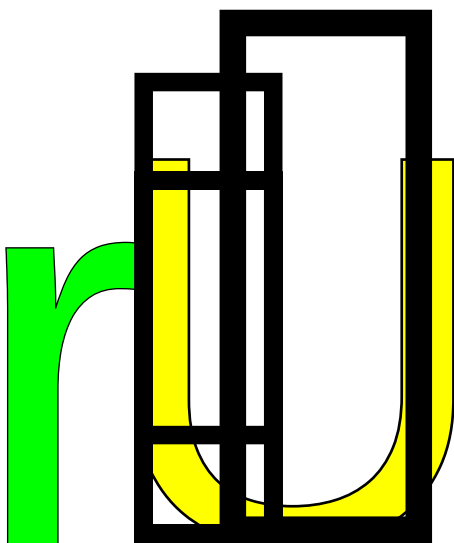
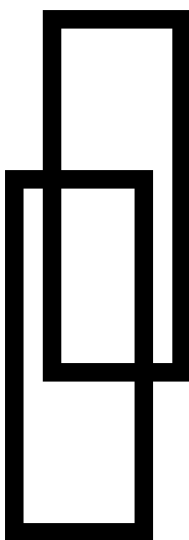
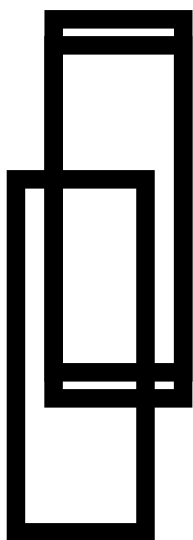
5 2/3

ÖDy; Bvup/x

Cx: Auto.

4.16

/ □ □ □ □ □ □ □



Fobc f bvup/ dpousp

2

Fobc f bvup/ Dpousp bgufs\21 7111 n jo^

Pckfdu wbvf pg Fobc f bvup/ dpousp bgufs cvt wpmubhf sfdpwfsz

"Enable auto. control"

1)Ejtb f bvup/ dpousp*

2)Fobc f bvup/ dpousp*

"0" "Enable auto. control" 0

"1" "Enable auto. control" 1

Bvup n bujdbz fobc f gps bvup/ dpousp

"Enable auto. control"

Op

Zft

"yes"

.. Fobc f bvup/ dpousp bgufs \21 7111 n jo^

" Enable auto. control"

0Tvo qspufdujpo:x

.. Qptjujpo jg tvo> 2)tvo jt t i jojh*

"Sun operation"

"1"

Op sfbdlujpo

Vq

Epxo

Tupq

Sfdfjwlf 2 czulf wbmvf

"No reaction"

"Sun operation"

"1"

"Receive 1 byte value"

"Sun operation"

"1"

"Sun:

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

"130"(51%)

.. Efmbezujnfpo tvo> 2 \1///76646t^

"Sun operation"

"1"

1Ú76646 t

.. Qptjupojg tvo> 1)tvo opu t ijojh*

"Sun operation"

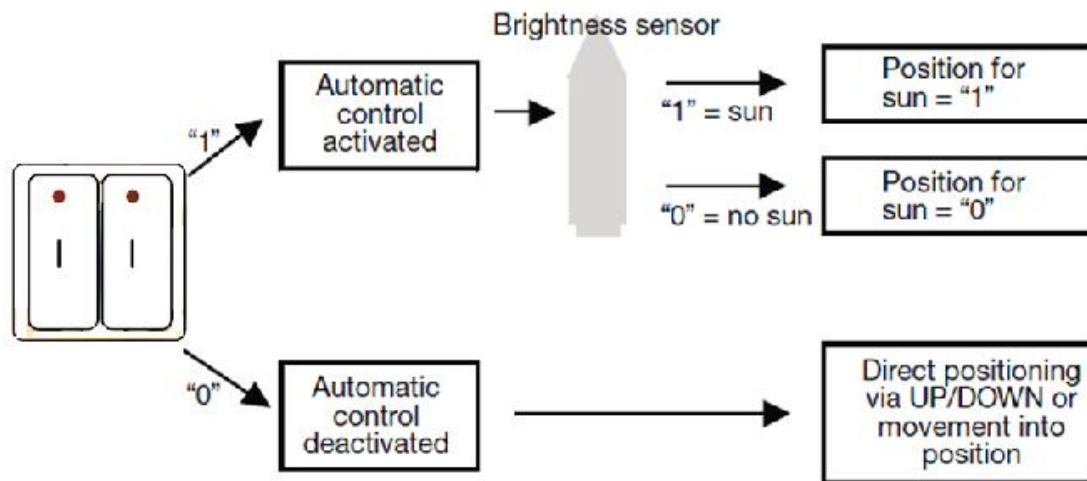
"0"

.. Efmbezujnfpo tvo> 1 \1///76646t^

"Sun operation"

"0"

1Ú76646 t



/

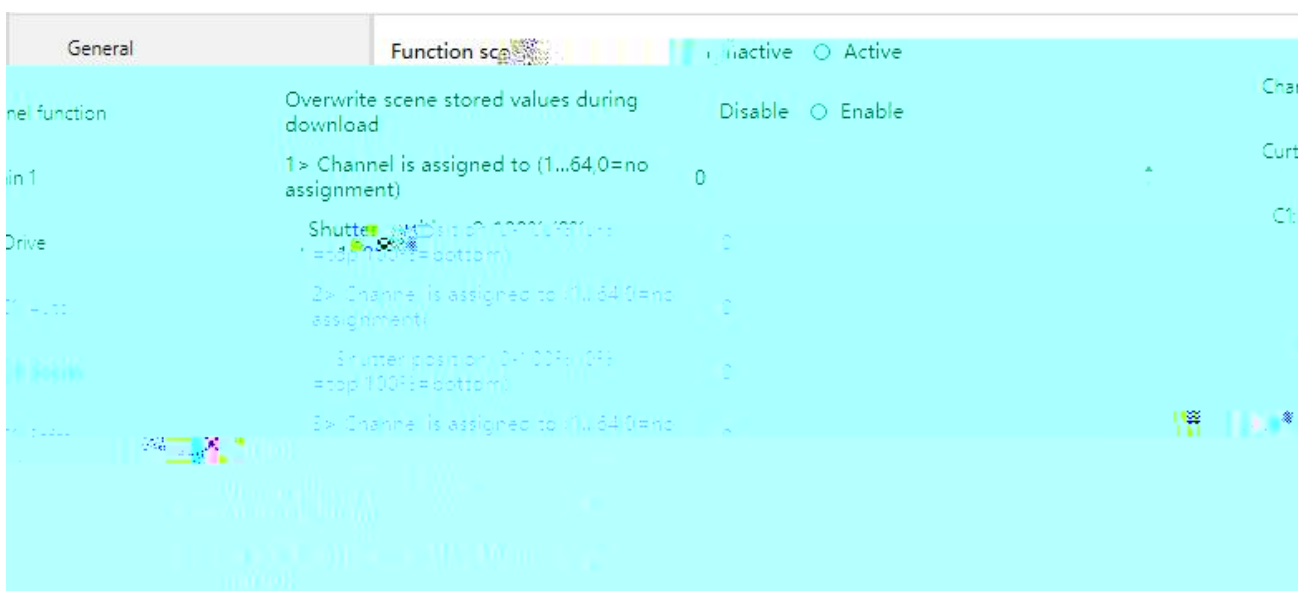
5/6/2/4

ÖDy; Tdfofx

"Cx: Scene"

4.17

8



4.17

Cx Scene

Disable

Enable



5/6/2/5

ÖDy; Tbgfuzx

"Cx: Safety"

4.18

General	Safety function ☐ Inactive ☒ Active
Channel function	Safety operation ☐ Inactive ☒ Active
Curtain 1	Safety operation trigger value (Cancel safety is opposite of selection) ☒ 0 ☐ 1
C1: Drive	Position on safety operation 1 Down
C1: Auto.	Automatic monitoring time in s [0...65,535, 0 = no monitoring] 120
C1: Scene	Safety operation 2 ☐ Inactive ☒ Active
C1: Safety	Safety operation trigger value (Cancel safety is opposite of selection) ☒ 0 ☐ 1
	Position on safety operation 2 Up

4.18

Cx Safety

ÖTbgfuz pqf sbujpo 203 x

Jobdujwf

Bdujwf

"Inactive"

"Active",

"Safety operation 1/2"

ÖTbgfuz pqf sbujpo usjhhs wbrvf)Dbodf: tbgfuz jt pqqptjuf pg tfrfdujpo*x

1

2

"0 "

"Safety operation 1/2"

"0"

1

"1"

0

ty operat

"1"

0Qptjujpo po tbyfuz pqf sbujpo 203

□ □ □ □ □ □ □ □ □ □

Vodifbohf

Vq

Epxo

Tupq

0Dzdijd n pojupsjoh ujn f jo t\1//76646- 1>op n pojupsjoh' x

/

"0"

"Safety operation1/2"

/

/

0Qptjujpo xjuif dbodfijoh pg uif rg

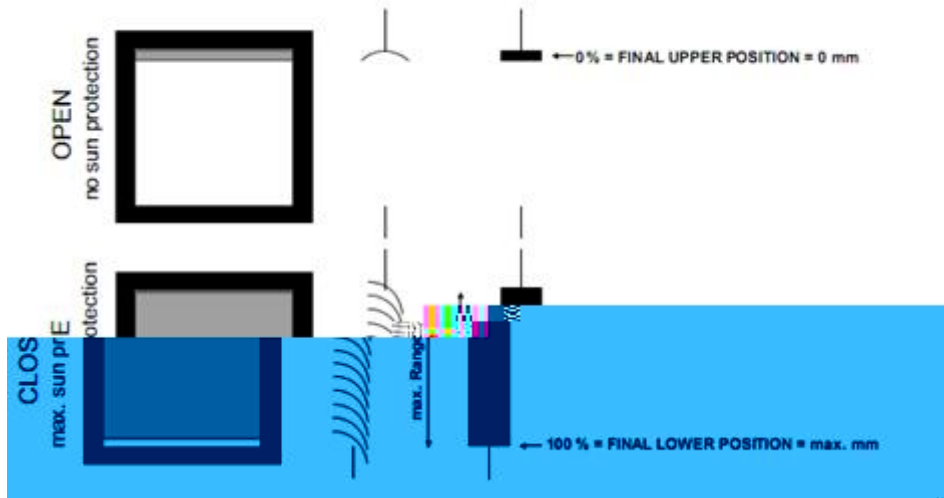
“Shutter”

“Venetian Blind”

“Shutter”

“Shutter”

“Shutter” “Venetian Blind”



Venetian Blind Shutter

“Shutter”

“Venetian Blind”

()

5/7/)ED*

DC

6

AC

Motor type

4.19

General	Config channel function as	☒ Venetian Blind ☐ Shutter
Channel function	If bus recovery, position is	Unchange
	If bus failure, position is	Up
Curtain DC 1	After reference movement, Position is	Move to saved position
DC1: Drive	Position of slat after arriving on lower end position	100%
DC1: Auto.	When blind is under end position, up/down object function is	☒ Disable ☐ Enable
DC1: Scene	Set response	☐ Respond after relay delay ☒ Respond after change
DC1: Safety	Central function of channel	☒ Disable ☐ Enable

4.19

Curtain DC X

DC

AC

tbgfuz 3 tbgfuz 2

2

3

4

4

5/8/

6

5/8/2

ÖGbo uzqf .. Pof mfwm

Fan type -- One level

4.20

1

General	Fan type	☒ One level ☐ Multi-level
Channel function	When bus failure, Fan speed is	Unchange
Fan 1	When bus recovery, fan speed is	Unchange
FI: Status	After downloading, fan speed is	OFF
Output 3	Forced operation function	☐ Disable ☒ Enable
Output 4	Forced operation on object value	☐ 0=Force/1=Cancel ☒ 1=Force/0=Cancel
	Behaviour on Forced operation	Unchange
	Auto. operation function	☒ Disable ☐ Enable
	Time mode for function ON	Switch Delay
	Delay time[1..65535]*0.1s	10
	Time mode for function OFF	Switch Delay
	Delay time[1..65535]*0.1s	10

4.20

Fan type -- One level

Gbo uzqf

Pof mfwf

Nvmuj. mfwf

One level 1

Multi-level 3 2 3

X i fo cvt gbjvst- Gbo tqffe jt

Vodibohf

PGG

PO

X i fo cvt sfdpwfsz- Gbo tqffe jt

Vodibohf

PGG

PO

Bt c f g p s f b t c v t g b j m

Unchange:

OFF

ON

As before as bus fail

B g u f s e p x o p b e j o h g b o t g f f e j t

0 G p s d f e p q f s b u j p o g v o d u j p o x

E j t b c m f

F o b c m f

"Enable", 1bit

"Forced operation"

00 G p s d f e p q f s b u j p o p o p c k f d u w b m v f

1 > G p s d f 0 2 > D b o d f m

2 > G p s d f 0 1 > D b o d f m

0=Force/1=Cancel

"Forced operation"

"0"

"1"

1=Force/0=Cancel

"Forced operation"

"1"

"0"

00 0 C f i b w j p v s p o G p s d f e p q f s b u j p o x

V o d i b o h f

PGG

PO

Unchange

OFF

ON


 0Bvup/ pq fshujpo gvodijpo x

Ejtbcmf

Fobcmf

Enable

4.21


 0Ujn f npef gps gvodijpo POx

Oporf

Txjudi efmbz

Njojnvn ujn f

None

Switch delay

ON

"Delay time

[1..65535]*0.1s"

"Fan speed"

"1"

PO

Minimum time

"Minimum time[1..65535]s"

ÖÖ Æfmbz ujn f \2//76646^+1/2tx

2Ú76646

ÖÖ ÆNjojnvn ujn f \2//76646^tx

2Ú76646

ÖUjn f n pef gps gvdujpo PGGx

Opo f

Txjudi efmbz

Njojnvn ujn f

None

Switch delay

OFF

"Delay time

[1..65535]*0.1s"

Minimum time

"Minimum time[1..65535]s "

OFF

ÖÖ Æfmbz ujn f \2//76646^+1/2tx

1...65535

ÖÖ ÆNjojnvn ujn f \2//76646^tx

1...65535

5/8/2/2

ÖGy; Bvup/x

4.20

Auto. operation function

Enable

4.21

1

Automatic function

Automatic

function

Status Automatic

General	Auto.operation on object value	☐ 0=Auto/1=Cancel ☒ 1=Auto/0=Cancel
Channel function	State of Auto.operation after startup	☐ Disable ☒ Enable
Fan 1	Automatically enable auto.operation	☐ NO ☒ YES
	Enable auto.operation after in [10..6000]min	100
	Threshold value OFF<->ON[1..100]%	30
	Hysteresis threshold value in +/-[0..50]%	10
	Number of control value	☒ 1 ☐ 2
	Monitoring control value	☐ Disable ☒ Enable
	Monitoring period of control value [10..65535]s	120
	Reply mode of Obj."Control value fault"	☐ Respond after read only ☒ Respond after change
	Control value after fault occurs[0..100]%	0

F1: Auto

F1: Statu:

Output 3

Output 4

4.21

Fx: Auto.

ÖBvup/ Pqfshujpo po pckfdi wbrvfx

1>Bvup02>Dbodf

2>Bvup01>Dbodf

0=Auto/1=Cancel

Automatic function

0

1

1=Auto/0=Cancel

Automatic function

1

0

0Tubuf pg Bvup/ pqfsbujpo bgu fs tubsuvgx

Ejtbcnf

Fobcnf

Disable

Enable

0Bvup n bujdbnz fobcnf bvup/ pqfsbujpo x

Op

Zft

Yes:

00 0Fobcnf bvup/pqfsbujpo bgu fs jo\21//7111^ n jo x

21//7111

0Uisftt pre wbrvf PGG= ?PO \2U211^&x

Control

value 2 211

0fztufstjt uisftt pre wbrvf jo .0. \1U61^&x

1

61

0

10

50

60

+

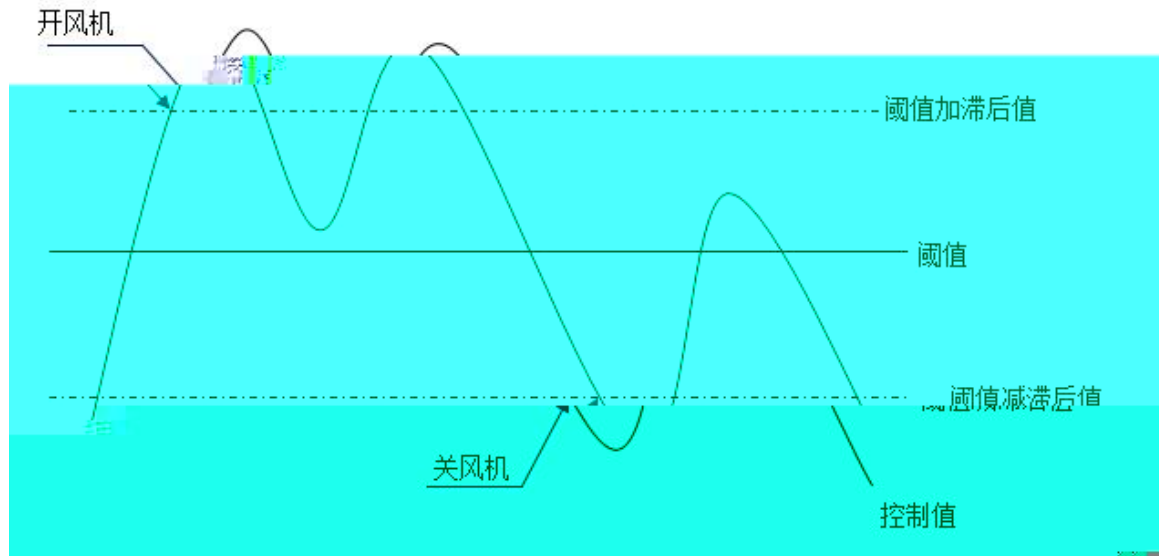
40

-

40~60

40

60



00v n c fs pg dpouspr wbvfx

2 2

3 3

1

2

00 0Tmfdu czx

2

Mbutfu wbvfx

Dpouspr wbvfx xju i txjud i joh pckfdu

Latest value

Control value with switching object

Switching control value1/2

0

1

1

2

2 3

Txjud i joh dpouspr wbvfx 203

Npojupsjoh dpousp wbrvf

Op

Zft

yes

ÒÒ Npojupsjoh qfsjpe pg dpousp wbrvf\21//76646^t

21Ú76646t

ÒÒ ÒSfqmz npef pg Pck/ ÒDpousp wbrvf gbvmuxx

Sftqpoe bgu fs sfbe pomz

Sftqpoe bgu fs di boh f

Respond after read only

“Control value fault”

Respond after change

“Control value

fault”

ÒÒ ÒDpousp wbrvf bgu fs gbvmu pddvst \1//211^&x

1Ú211 &

5/8/2/3

ÖGy; Tubuv t x

Fx: Status

4.22

General
Channel function
Fan 1
F1: Auto

F1: Status

Output 3
Output 4

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

- ☐ Respond after read only
☒ Respond after change

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

- ☒ Respond after read only
☐ Respond after change

4.22

Fx: Status

0Sfqiz n pef pg Pci/0Tubuv t Gbo PO0PGGx)2cju* x

Sftqpoe bgufs sfbe ponz

Sftqpoe bgufs di boh f

Respond after read only

□

4.23

[illegible]

4.23

Fan type - Multi-level

2

3

2

1

2

3

0Gbo tqf fet po 3 nj njux

Multi-level

2

3

Op

Zft

No

Yes

2

3

3

3

4

0Gbo pq fsbuppo n pe f*

Dibohfpwfs txjudi

Tufq txjudi

Changeover switch

Step switch

3

3

Output 1&2&3

2

2

Output 1&2

00 0Efbz cfux ffo gbo tqffe txjudi \61Ü6111'n t*

changeover switch

61 6111

0X i fo cvt gbjvst Gbo tqffe jt*

Vodibohf

PGG

2

3

4

OFF

1 2 3

1 2 3

3

4

0X i fo cvt sfdpwfsz gbo tqffe jt×

Vodibohf

PGG

2

3

4

Bt cfgpsf bt cvt gbjm

OFF

1 2 3

1 2 3

As before as bus fail

3

4

0Bgufs ep x o pbejoh gbo tqffe jt×

Pckfdu wbrvf gps gbo tqffe

Pckfdu wbrvf gps Gbo tqffe 20304

Fan speed--1byte

2//366

0

Gpsdfe pqfsbujpo gvodujpo

Ejtbcnf

Fobcnf

Enable ,1bit

Forced Operation

Gpsdfe pqfshjpo po pl="

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

		2		3 4
3		2		3
	1	2 3 4		4
4	2	3		2 3
1	2			

0Bvip/ pq fsbujpo gvodujpo×

Ejtbcmf

Fobcmf

Enable 4.24

0Pck/Txjudi tqffe y! 2cju gvodujpo×

Ejtbcmf

Fobcmf

Enable	1bit	Fan speed 1 ,	Fan speed 2	Fan speed 3
	1			0

00 0Txjdi po pwfs gbo tqf fe>

OFF

20304

2

3

2

00 0Njojnvn iijn f jo t xjdi \2//76646't>

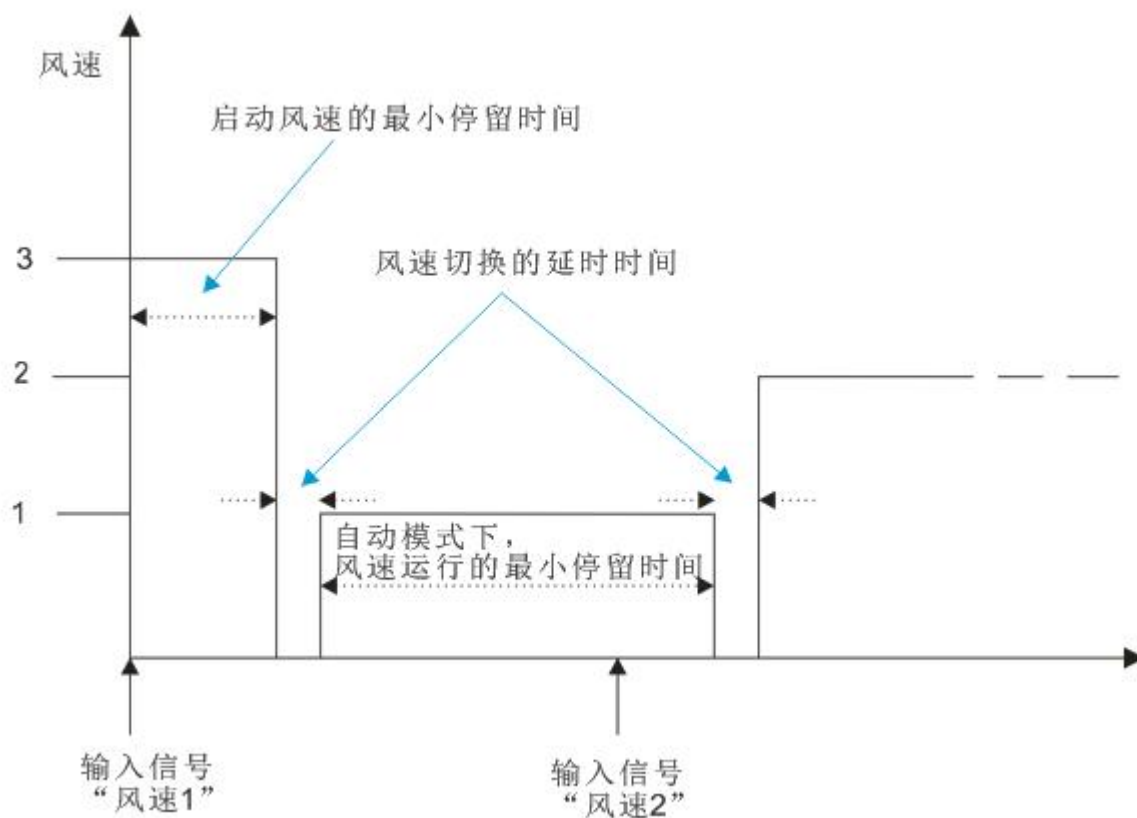
2 76646

3

3

1

2



3A2R

5/8/3/2

ÖGy; Bvup/x

4.23

Auto. operation function

Enable

4.24

0Bvup/ pqfsbujpo po pexfdu wbrvf x

1>Bvup02>Dbodf

2>Bvup01>Dbodf

0=Auto/1=Cancel

Fan Automatic ON/OFF

0

1

1=Auto/0=Cancel

Fan Automatic ON/OFF

1

0

0Tubuf pg Bvup/ pqfsbujpo bgu fs tubsuvqx

Ejtbcf

Fobcf

Disable

Enable

0Bvup n bujdbz fobcf bvup/ pqfsbujpo x

Op

Zft

Yes:

0Fobcf bvup/ Pqfsbujpo bgu fs \21//7111^ n jo x

21//7111

0Uisft ip e wbrvf PGG=..?tqffe 2 \20211^& x

1

2 211&

1

0Uisftip'e wbv'f tqffe 2=..?tqffe 3\2Ü211'&x

2

2

2 366

0Uisftip'e wbv'f tqffe 3=..?tqffe 4\2Ü211'&x

3

3

2 366

PGG =.? 2

2 =.? 3

3 =.? 4

PGG =.? 2

2 =.? 3

2 =.? 3

3 =.? 4

00 01ztufstjt'uisftip'e wbv'f jo ,0.\1Ü61'&x

1 61

0

10

50

60

+

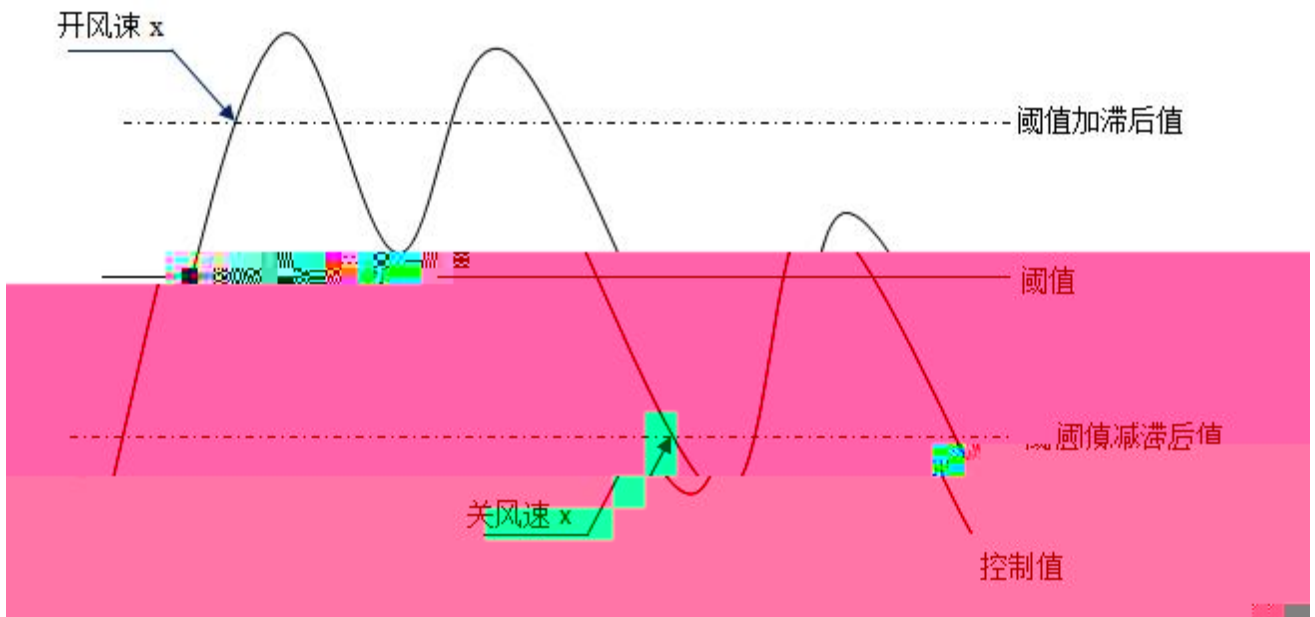
40

-

40~60

40

()60



1

2

1

OFF <-> 1 10%

1 <-> 2 20%

2 <-> 3 30%

15%

OFF

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

1

3

	3	14%	<30%-15%		1	14%	10%	20%
		2						
	2							
OFF <->	1	10%						
1 <->	2	40%						
2 <->	3	70%						
	5%							
	OFF							
OFF		15%	10%+5%					
		41%		2	41%	40%	70%	
1								
		39%		1	39%	10%	40%	
	3							
	3	64%	<70%-5%					
		39%		1	39%	10%	40%	
2								
3		0						

00 0Njojnvn ujn f jo gbo tqffe \1U76646-tx

0

pgg

2

4

2

3

4

1

0Ov n c fs pg dpouspr wbrv fx

5/8/2/2

xOv n c fs pg dpouspr wbrv fx

5/8/3/3

ÖGy; Tubuv t x

Fx: Status

4.26

General	Reply mode of Obj. "Status Fan ON/OFF"(1bit)	☐ Respond after read only ☒ Respond after change
Channel function	Reply mode of Obj. "Status Automatic"(1bit)	☐ Respond after read only ☒ Respond after change
Fan 1	Reply mode of Obj. "Status Fan speed x"(1bit)	☐ Respond after read only ☒ Respond after change
F1: Auto	Reply mode of Obj. "Status Fan speed"(1byte)	☐ Respond after read only ☒ Respond after change
F1: Status	Status feedback for fan speed	
Output 3	Status value for Fan speed 1	1
Output 4	Status value for Fan speed 2	2
	Status value for Fan speed 3	3

4.26

Fx: Status

0Sfqiz npef pg Pcv0Tubuv t Gbo PO0P6Gx)2cju*x

Sftqpoe bgufs sfbe pomz

Sftqpoe bgufs di boh f

Respond after read only

Status Fan ON/OFF

Respond after change

Status

Fan ON/OFF

0Sfqiz npef pg Pcv0Tubuv t Bvup n bujd x)2cju*x

Status Automatic

1

0

Sftqpoe bgufs sfbe pomz

Sftqpoe bgufs di boh f

Respond after read only

Status Automatic

Respond after change

Status

Automatic


 0Sfqiz npef pg Pci/0Tubvt gbo tqffe y*)2cju*x

1bit

Status Fan speed 1

Status Fan speed 2

Status Fan speed 3

*Sftqpoe bgufs sfbe pomz**Sftqpoe bgufs di boh f*

Respond after read only

Respond after change


 0Sfqiz npef pg Pci/0Tubvt gbo tqffe x)2czuf*x

Status Fan speed

1byte

*Sftqpoe bgufs sfbe pomz**Sftqpoe bgufs di boh f*

Respond after read only

Respond after change


 Tubvt gffecbdl gps gbo tqffe

0Tubvt wbmvf gps Gbo tqffe 20304 \2//366^x

2//366

0

General	Product select	4-Fold
General	Heat output for 4-pipe valve 1 is Output 1	Output1&2,if 3point,open and close
Heating	Cool output for 4-pipe valve 1 is Output 3	Output3&4,if 3point,open and close
Cooling		

4.26 Channel function--valve type

General	HVAC control mode	Heating
Channel function	Monitoring control value	☐ Disable ☒ Enable
Valve 1 General	Monitoring period of control value [10..65535]s	60
V1: Heating	Reply mode of Obj.*Control value fault	Respond after read only

4.27 1 Valve X General--Heating

General	HVAC control mode	Cooling
Channel function	Monitoring control value	☐ Disable ☒ Enable
Valve 1 General	Monitoring period of control value [10..65535]s	60
V1: Cooling	Reply mode of Obj.*Control value fault	Respond after read only

4.27 2 Valve X General--Cooling

General	HVAC control mode	Heating and Cooling
Channel function	HVAC System	2 pipes system
Valve 1 General	Monitoring control value	☐ Disable ☒ Enable
V1: Heating/Cooling	Monitoring period of control value [10..65535]s	60
	Reply mode of Obj.*Control value fault	☐ Respond after read only ☒ Respond after change
	Control value after fault occurs[0..100]%	0

Npojupsjoh dpousp_m wb_mv f

Ejtbc_m f

Fobc_m f

Enable:

Npojupsjoh qfsjpe pg dpousp_m wb_mv f\21//76646^t

21Ú76646t

ÖSfq_mz n pef pg Pck/ ÖDpousp_m wb_mv f gb_v_mu_mxx

Sftqpoe bg_ufs sfbe po_mz

Sftqpoe bg_ufs di boh f

Respond after read only

“Control value fault”

Respond after change

“Control value

fault”

ÖÖ ÖDpousp_m wb_mv f bg_ufs gb_v_mu_m pddvst \1//211^&x

1Ú211 &

>0%

0%

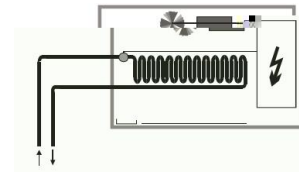
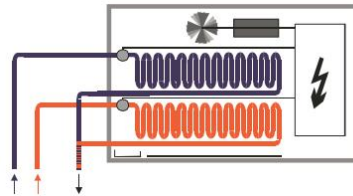
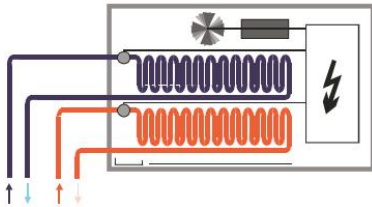
3 5

2 3 4

/

/

/



5/9/2

ÖWy; I f bujoh0Dppmjohx

"Vx:Heating " "Vx: Cooling"

4.29 4.30

(2 4)

General	Valve control	2 state-ON/OFF
Channel function	Valve type	☒ Normal(de-energised closed) ☐ Inverted(de-energised open)
Valve 1 General	If bus recovery, valve position	☒ Unchange ☐ Close valve
V1: Heating	If	☒ Unchange ☐ Close valve ☐ Respond after read only ☒ Respond after change
	Reply mode for valve status	
	Valve purge function	☒ Disable ☐ Enable
	"Disable heating" object function	☒ Disable ☐ Enable

4.29

"Vx: Heating"

General	Valve control mode	2 state-ON/OFF
Channel function	Valve type	☒ Normal(de-energised closed) ☐ Inverted(de-energised open)
Valve 1 General	If bus recovery, valve position	☒ Unchange ☐ Close valve
V1: Cooling	If bus failure, valve position	☒ Unchange ☐ Close valve
	Reply mode for valve status	☐ Respond after read only ☒ Respond after change
	Valve purge function	☒ Disable ☐ Enable
	"Disable cooling" object function	☒ Disable ☐ Enable

4.30

"Vx: Cooling"

Wb w f d p o u s p r i n p e f x

3 t u b u f . P O 0 P G G

D p o u j o v p v t - Q X N

4 q p j o u - p q f o b o e d i p t f

2 state-ON/OFF

Continuous, PWM PWM

3 point, open and close:

4.31

General	Valve control mode	2 state-ON/OFF
Channel function	Valve type	☒ Normal(de-energised closed) ☐ Inverted(de-energised open)
Valve 1 General	If bus recovery, valve position	☒ Unchange ☐ Close valve
V1: Heating	If bus failure, valve position	☒ Unchange ☐ Close valve
	Reply mode for valve status	☐ Respond after read only ☒ Respond after change
	Valve purge function	☐ Disable ☒ Enable
	Duration of valve purge time[1..255]min	10
	Automatic valve purge	☐ Disable ☒ Enable
	Purge Cycle in weeks[1..12]	1
	Reply mode for valve purge status(1bit)	☐ Respond after read only ☒ Respond after change
	"Disable heating" object function	☐ Disable ☒ Enable
	Trigger object value	☒ 0=Disable/1=Enable

4.31

"2 state-ON/OFF"

Wbwwf uzqf

Ops nbm)ef. fofshjt fe dmpf fe*

Jowfsufe)ef. fofshjt fe pqfo*

Normal(de-energised closed)

Inverted(de-energised open)

Jg cvt sfdpwfsz-wbwwf qptjuppo

Vodibohf

Dmpf fbwwf

Unchange

Close valve

lg cvt gbj vsf wbf qptjuppo

Vodi boh f

Dmpt f wbf

Unchange

Close valve

Sfqz n pef gps wbf tubvt)2cju

Sftqpoe bgufs sfbe pomz

Sftqpoe bgufs di boh f

Respond after read only

“Valve

status,Heat/Cool”

Respond after change

“Valve status,

Heat/Cool”

Wbf qvshf gvdujpo

Ejtbc f

Fobc f

Enable

1bit

Trigger valve purge, Heat/Cool

Evsbujpo pg wbf qvshf ujn f2///366 n jo

2 366 n jo

/

Bvup n bujd wbmwf qvshf

Ejtbcnf

Fobcnf

Enable

Qvshf Dzdnf jo xfflt\2///23^

2 23

Sfqnz npef gps wbmwf qvshf tubvut)2cju*

Sftqpoe bgufs sfbe pomz

Sftqpoe bgufs di boh

Respond after read only

“Valve

purge status, Heat/Cool”

Respond after change

“Valve purge status,

Heat/Cool”

#Ejtbcnf i fbujoh0dpp:joh# pckfdu gvoduipo

Ejtbcnf

Fobcnf

Enable

1bit

“Disable, Heat/Cool”

/

Usjhhfs pcfdu wbrvf

/

1>Ejtbcmf02>Fobcmf

2>Ejtbcmf01>Fobcmf

0=Disable/1=Enable

Disable, Heat/Cool

0

/

1

1=Disable/0=Enable

Disable, Heat/Cool

1

/

0

5/9/2/3 Dpoujovpvt- QX N

4.32

General	Valve control mode	Continuous,PWM
Channel function	Valve type	☒ Normal(de-energised closed) ☐ Inverted(de-energised open)
Valve 1 General	PWM cycle time[10..6000]s	120
V1: Heating	If bus recovery, valve position	☒ Unchange ☐ Close valve
	If bus failure, valve position	☒ Unchange ☐ Close valve
	Reply mode for valve status	☐ Respond after read only ☒ Respond after change
	Valve purge function	☐ Disable ☒ Enable
	Duration of valve purge time[1..255]min	10
	Automatic valve purge	☐ Disable ☒ Enable
	Purge Cycle in week[1..12]	1
	Reply mode for valve purge status(1bit)	☐ Respond after read only ☒ Respond after change
	"Disable heating" object function	☐ Disable ☒ Enable
	Trigger object value	☐ 0=Disable/1=Enable ☒ 1=Disable/0=Enable

4.32

"Continuous, PWM"

PWM

20% PWM 15min 3min 12min 60%

9min 6min



5/9/2/4 4 qpjou- pq fo boe dmp t f

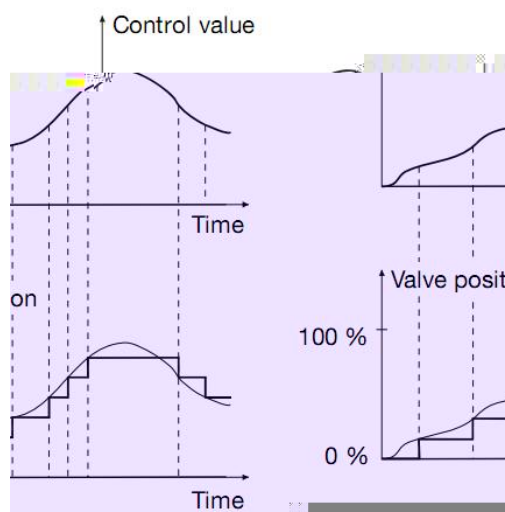
4.33

General	Valve control mode	3 point, open and close
Channel function	Observe reversing time	400ms
Valve 1 General	If bus failure, valve position	Unchange
	If bus recovery, valve position	☒ Unchange ☐ Close valve
Valve control time 0%->100%[50..6000]s		100
Automatic valve position		☐ NO ☒ YES
Number of valve control up to adjust [1..65535]		200
Correct Valve characteristic curve		☐ NO ☒ YES
Min. controller value for closed valve [0..100]%		0
Max. controller value for fully opened valve [0..100]%		100
Lower valve position for opening [0..100]%		0
Upper valve position for opening [0..100]%		100
Reply mode for valve status		☐ Respond after read only ☒ Respond after change
Object type of valve status		☐ 1bit ☒ 1byte

4.33 "3 point, open and close"

20%

20%



0Pctfswf sfwfstjoh ujn fx

211 nt0311 nt0 02t02/3t02/6t

0Jg cvt gbjvstf- wbrwf qptjupox

0Jg cvt sfdpwfsz- wbrwf qptjupox

Vodibohf

Dmptf wbrwf

Unchange

Close valve

1&

1&

ÖWbwwf dpousprijn f 1& 211& \61Ü7111^t×

61 7111t

180s

20%

60%

20% 60%

72s

ÖBvup n bujd bekv tu wbwf qptjujpo×

Zft

Op

Yes

Ov n cfs pg wbwf dpouspm vq up bekv tu\2 76646^

0%

2 76646

100

100

101

0%

100

50%

101

60%

101

40%

0%

40%

5%

+

Ö

5%

Ö 5%

1min

1min

1min

ÖDpsfdu Wbwf d i bsbdufsjujd dvswf×

Zft

Op

Yes

Njo/ dpouspm fs wbmvf gps dñpt fe wbmwf\1//211^&

Nby/ dpouspm fs wbmvf gps gvmmz pqfofe wbmwf\1///211^&

Mpx fs wbmwf qptjujpo gps pqfojoh\1///211^&

Vqq fs wbmwf qptjujpo gps pqfojoh\1///211^&

1///211 \&^

Min. controller value for closed valve

Max. controller value for fully opened valve

Lower valve position for opening

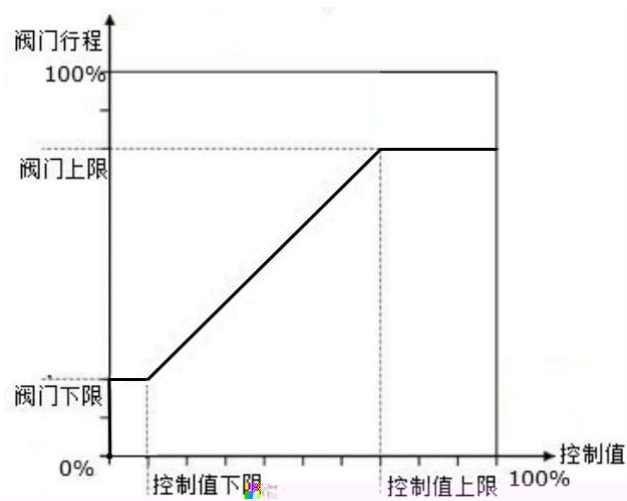
Upper valve position for opening

10%

20%

70%

80%



Sfqz npef gps wbmwf tubvvt)2cju*

Sftqpoe bgufs sfbe pomz

Sftqpoe bgufs di boh f

Respond after read only

Valve

status, Heat/Cool

Respond after change

Valve status,

Heat/Cool

0Pckfdu uzqf pg wbmwf tubvlt x

2cju

2czuf

1bit

1bit

Valve status, Heat/Cool

1byte

1byte

Valve status, Heat/Cool

Pckfdu wbmwf xju i wbmwf qptjujpo ?1

1

2

1

0

Valve status, Heat/Cool

1

0

0

4qpjou-pqfo boe dmp t f

Dpouspm wbmwf - Dppm0 l fbu

2

3

4

4qpjou-pqfo boe dmp t f

5

1&

6 0

7

2

3

4

2

4

D

X

S

U

V

6/2/

6/2/2

.. Txjud i bduvbups

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

5.1

--Switch actuator

					DPT
329	Hfofsb	Jo pq fsbujpo	2cju	D-U	2/112 EQU`Txjud i
"1"					
2	Hfofsb	Dfousb dpousp gps b t xjud i	2cju	D-X	2/112 EQU`Txjud i
0 -- off 1 -- on					
3	Pvuqvu Y	Txjud i	2cju	D-X	2/112 EQU`Txjud i
"Input 0" "Switch ,X"					
4	Pvuqvu Y	Txjud i tubuv t	2cju	D-S-U	2/112 EQU`Txjud i
4.3"Output X" "Object value of switch status: " "Respond after read only" "Respond after change"					

6/2/3

.. l f bujoh bduvbuys) x ju i pvu dpouspmm fs*

	Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
	2	Output 1	On-off control value			1 bit	C	-	W	-	-	switch	Low
	3	Output 1	Status of contact			1 bit	C	R	-	T	-	switch	Low
	7	Output 1	Report fault			1 bit	C	R	-	T	-	alarm	Low
	8	Output 1	Forced output			1 bit	C	-	W	-	-	enable	Low

1bit(on-off control or PWM)

	Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
	3	Output 1	Status of contact			1 bit	C	R	-	T	-	switch	Low
	5	Output 1	Control value(Continuous)			1 byte	C	-	W	-	-	percentage (0..100%)	Low
	6	Output 1	Status of continuous, 1byte			1 byte	C	R	-	T	-	percentage (0..100%)	Low
	4	Output 1	Status of continuous, 1bit			1 bit	C	R	-	T	-	switch	Low

1byte(Continuous)

5.2 --Heating actuator(without controller)

					DPT
3	Pvuqvuy	Po.pgg dpouspmm wbmvf	2cju	D-X	2/112 EQU`Txjudi
"Control telegram is received as" "1bit(on-off control or PWM)"					
1bit	"0"	"1"			
4	Pvuqvuy	Tubvtpg dpoubdu	2cju	D-S-U	2/112 EQU`Txjudi
"Reply the status for contact" "Yes, 1= contact close ; 0=contact open" "Yes,0= contact close ; 1=contact open"					
6	Pvuqvuy	Dpouspmm wbmvf)dpoujovpvt*	2czuf	D-X	6/112 EQU`Tdbnjoh
"Control telegram is received as" "1byte(Continuous)" 1Byte					
	0...100%	"0%"	"100%"		
5	Pvuqvuy	Tubvtpg dpoujovpvt-2 cju	2cju	D-S-U	2/112 EQU`Txjudi
"Reply the status for continuous control" "Yes 0%=0, otherwise "1"(1bit)" "Yes 0%=1, otherwise "0"(1bit)"					
	"Yes, 0% =0, otherwise"1"(1 bit)"	"0"	"1"		
	"Yes, 0% =1, otherwise"0"(1 bit)"	"1"	"0"		
7	Pvuqvuy	Tubvtpg dpoujovpvt-2 czuf	2czuf	D-S-U	6/112 EQU`Tdbnjoh
"Reply the status for continuous control" "Yes continues control value 1byte " (PWM)					
8	Pvuqvuy	Sfqpsu gbvmu	2cju	D-S-U	2/116 EQU`Bmbsn
"Send object "Report fault" is" "Enable"					
	"1"	"0"			
9	Pvuqvuy	Gpsdfe pvuqvuy	2cju	D-X	2/114 EQU`Fobcmf
"1"					
"0"					

5.2 --Heating actuator(without controller)

6/3/)BD0ED*

AC		DC		AC									
	Numb	Name	Object Function	Des	Group	Length	C	R	W	T	U	Data Type	Priority
	2	Curtain 1	Move UP/DOWN			1 bit	C	-	W	-	-	up/down	Low
	3	Curtain 1	Slat adj/stop			1 bit	C	-	W	-	-	step	Low
	4	Curtain 1	Reference movement			1 bit	C	-	W	-	-	up/down	Low
	5	Curtain 1	Move to position 0..100%			1 byte	C	-	W	-	-	percentage (0..100%)	Low
	531	General	Central control for Up/Down			1 bit	C	-	W	-	-	up/down	Low
	532	General	Central control for Slat/Stop			1 bit	C	-	W	-	-	step	Low

5.3 AC

DPT

642 Hf of sbm D-01 0 0 0 0

'0'-- /

'1'-- /

5 Dvsubjo Y Sfgfsfodf n pwf n fou 2cju D-X 2/119 EQU`VqEpxo
"After reference movement, Position is" "disable" /
/
'0'-- /
,

8bit () FXNNNNNNN 8bit

F: '0' '1'

X 0

NNNNNN 0...63

1~64 "Scene" 0~63 1

"Scene" 0

0	1
1	2
2	3
...	...
63	64
128	1
129	2
130	3
...	...
191	64

9 Dvsubjo Y Qptijuppo tubuvt 1//211& 2czuff D-S-U 6/112 EQU* Tobjon

□ / /

'0%' --

..... --

'100%'-- □

: Dvsubjo Y Tmbu tubuvt 1//211&

6/4/

Numb	Name	Object Function	Des	Group	Length	C	R	W	T	U	Data Type	Priority
219	Fan 1	Fan speed			1 bit	C	-	W	-	-	switch	Low
223	Fan 1	Status Fan ON/OFF			1 bit	C	R	-	T	-	switch	Low
228	Fan 1	Automatic function			1 bit	C	-	W	-	-	enable	Low
229	Fan 1	Status Automatic			1 bit	C	R	-	T	-	enable	Low
230	Fan 1	Forced operation			1 bit	C	-	W	-	-	enable	Low
231	Fan 1	Control value 1			1 byte	C	-	W	-	-	percentage (0..100%)	Low
232	Fan 1	Control value 2			1 byte	C	-	W	-	-	percentage (0..100%)	Low
233	Fan 1	Switching control value 1/2			1 bit	C	-	W	-	-	switch	Low
234	Fan 1	Control value fault			1 bit	C	R	-	T	-	alarm	Low

5.4_1 _One level

Numb	Name	Object Function	Des	Group	Length	C	R	W	T	U	Data Type	Priority
219	Fan 1	Fan speed			1 byte	C	-	W	-	-	percentage (0..100%)	Low
220	Fan 1	Fan speed 1			1 bit	C	-	W	-	-	switch	Low
221	Fan 1	Fan speed 2			1 bit	C	-	W	-	-	switch	Low
222	Fan 1	Fan speed 3			1 bit	C	-	W	-	-	switch	Low
223	Fan 1	Status Fan ON/OFF			1 bit	C	R	-	T	-	switch	Low
224	Fan 1	Status Fan speed			1 byte	C	R	-	T	-	percentage (0..255)	Low
225	Fan 1	Status Fan speed 1			1 bit	C	R	-	T	-	switch	Low

5.4_2 _Multi-level

					EQU
32:	Gbo Y	Gbo tqf fe	2cju 2czuf	D-X	2/112 EQU`T xjud i 6/112 EQU`Tdbnjoh
, 1bit "0"--- "1"--- 1byte 1...255 0 2///366 1///211& 366)%GG*..211& 239)%91*..61& 62)%44*..31&					

331	Gbo Y	Gbo tqffe 2	2cju	D-X	2/112 EQU`Txjudi
1 1~3 ON 1~3 OFF "0"--- "1"--- 1					
332	Gbo Y	Gbo tqffe 3	2Cju	D-X	2/112 EQU`Txjudi
220					
333	Gbo Y	Gbo tqffe 4	2Cju	D-X	2/112 EQU`Txjudi
220					
334	Gbo Y	Tubvut Gbo PO0PGG	2cju	D-S-U	2/112 EQU`Txjudi
"0"--- "1"---					
335	Gbo Y	Tubvut Gbo tqffe	2czuf	D-S-U	6/121 EQU`Dpvoufs qvntft
Status value for Fan speed 1/2/3 [1..255] "0"					
336	Gbo Y	Tubvut Gbo tqffe 2	2cju	D-S-U	2/112 EQU`Txjudi
1 "0"--- 1 "1"--- 1					
337	Gbo Y	Tubvut Gbo tqffe 3	2cju	D-S-U	2/112 EQU`Txjudi
225					
338	Gbo Y	Tubvut Gbo tqffe 4	2cju	D-S-U	2/112 EQU`Txjudi
225					

339

Gbo Y Tuvv t Bvup n bujd av 2cju D-S-U 2/114 EQU`Fobc f

"0 Auto/1=Cancel"

"0"---

"1"---

"1 Auto/0=Cancel"

"0"---

"1"---

219 Fan X--Fan speed

220-222 Fan X-- Fan speed x (x=1,2,3)

33:

Gbo Y

Tuvv t Bvup n bujd

2cju

D-S-U

2/114 EQU`Fobc f

"0"---

"1"---

341

Gbo Y

Gpsd fe Pqfsbujpo

2cju

D-X

2/114 EQU`Fobc f

"Limitation on forced operation"

"0 Force/1=Cancel"

"0"---

"1"---

"1 Force/0=Cancel"

"1"---

"0"---

342

Gbo Y

Dpousp wbm v f 0Dpousp wbm v f
2

2czuf

D-X

6/112 EQU`

344	Gbo Y	T xjud i joh dpousp m wb m v f 203	2cju	D-X	2/112 EQU`T xjud i
2 "0"—Control value 1 (1) "1"—Control value 2 (2)					
345	Gbo Y	Dpousp m wb m v f gb v m u	2cju	D-S-U	2/116 EQU`B mbs n
"0"— "1"—					

5.4

6/5/

4

Numb	Name	Object Function	Des	Group	Length	C	R	W	T	U	Data Type	Priority
315	4-pipe Valve 1	Heat/Cool mode status			1 bit	C	R	-	T	-	cooling/heating	Low
316	4-pipe Valve 1	Control value fault			1 bit	C	R	-	T	-	alarm	Low
317	4-pipe Valve 1	Disable, Heat			1 bit	C	-	W	-	-	enable	Low
318	4-pipe Valve 1	Control value, Heat			1 byte	C	-	W	-	-	percentage (0..100%)	Low
319	4-pipe Valve 1	Valve status, Heat			1 bit	-	C	R	-	T	switch	Low
320	4-pipe Valve 1	Trigger valve purge, Heat			1 bit	C	-	W	-	-	enable	Low
321	4-pipe Valve 1	Valve purge status, Heat			1 bit	-	C	R	-	T	enable	Low
322	4-pipe Valve 1	Disable, Cool			1 bit	C	-	W	-	-	enable	Low
323	4-pipe Valve 1	Control value, Cool			1 byte	C	-	W	-	-	percentage (0..100%)	Low
324	4-pipe Valve 1	Valve status, Cool			1 bit	-	C	R	-	T	switch	Low
325	4-pipe Valve 1	Trigger valve purge, Cool			1 bit	C	-	W	-	-	enable	Low
326	4-pipe Valve 1	Valve purge status, Cool			1 bit	-	C	R	-	T	enable	Low

5.5

					DPT
426	5.qjqf Wbmwf Y	I fbu0Dppm n pef tubvvt	2cju	D-S-U	2/211 EQU` I fbu0Dppm
/					
"0"---					
"1"---					
427	5.qjqf Wbmwf Y	Dpouspm wbmvf gbvmu	2cju	D-S-U	2/116 EQU` Bmbs n
/					
"0"---					
"1"---					
428043 3	5.qjqf Wbmwf Y	Ejtbcmf- I fbu0Dppm	2cju	D-X	2/114 EQU` Fobcmf
/ 0%					
429043 4	5.qjqf Wbmwf Y	Dpouspm wbmvf- I fbu0Dppm	2czuf02cju	D-X	6/112 EQU`Tdbmjoh 2/112 EQU`Txjud i
2 (318)					
1bit 1byte					
42:043 5	5.qjqf Wbmwf Y	Wbmwf tubvvt- I fbu0Dppm	2czuf02cju	D-S-U	6/112 EQU`Tdbmjoh 2/112 EQU`Txjud i
431043 6	5.qjqf Wbmwf Y	Usjhhs wbmwf qvshf- I fbu0Dppm	2cju	D-X	2/114 EQU` Fobcmf
0					
1					
432043 7	5.qjqf Wbmwf Y	Wbmwf qvshf tubvvt- I fbu0Dppm	2cju	D-S-U	2/114 EQU` Fobcmf
0					
1					