

K-BUS K G

K G 2 2 2 1.1
C -04/00.1.00



K /EIB

注意事项

1、请远离强磁场、高温、潮湿等环境；



远离磁场



远离高温



防潮

2、不要将设备摔落在地上或使之受到强力冲击；



小心轻放



搬运时请使用搬运车

.....	1
.....	3
.....	3
3.1	4
3.2	5
3.3	6
E	14
4.1	G 229 2 14
4.2	G 2 17
4.3	L 2 20
4.4	2 24
4.5	2 27
4.6	22 2 2 30
4.6.1	22 2 2 9 29 1/2/3/4 33
4.7	 39
4.7.1	2 9 29 1/2/3 42
4.8	B22 44
4.8.1	B22 2 9 29 1/2/3 46
4.9	D2 48
4.9.1	D2 2 9 29 1/2/3 49
4.10	2 2 51
4.10.1	F2 2 1/.../8 2 57
4.10.1.1	2 2 22 2 2 2 63
4.10.1.2	2 2 2 9 2 2 65
4.10.1.3	2 2 2 2 2 2 66
4.10.1.4	2 2 29 2 67
4.10.1.5	2 2 29 2 69

4.10.2	F2 2 1/.../8 A	71
4.11	C29 22	82
4.11.1	C29 22 9 2 1/2/3	83
4.12	9	86
4.12.1	9 9 2 /.../ 2	87
4.12.1.1	9 9	91
4.13	L 2	92
4.13.1	A D 9 2 1/.../6	95
		101
5.1	G 229 2	101
5.2	G 2	102
5.3	L 2	103
5.4	2	104
5.5	2	105
5.6	22 2	106
5.7		109
5.8	B22	111
5.9	D2	113
5.10	2 2	115
5.11	C29 22	117
5.12	9	118
5.13	L 2	119

KNX GPS

!

!

k

k

k

GPS

!

k

k

●

●

k

●

●

●

4

6

6

k

16

k

1

2 x 8

●

k

3

k

●

kKNX GPS

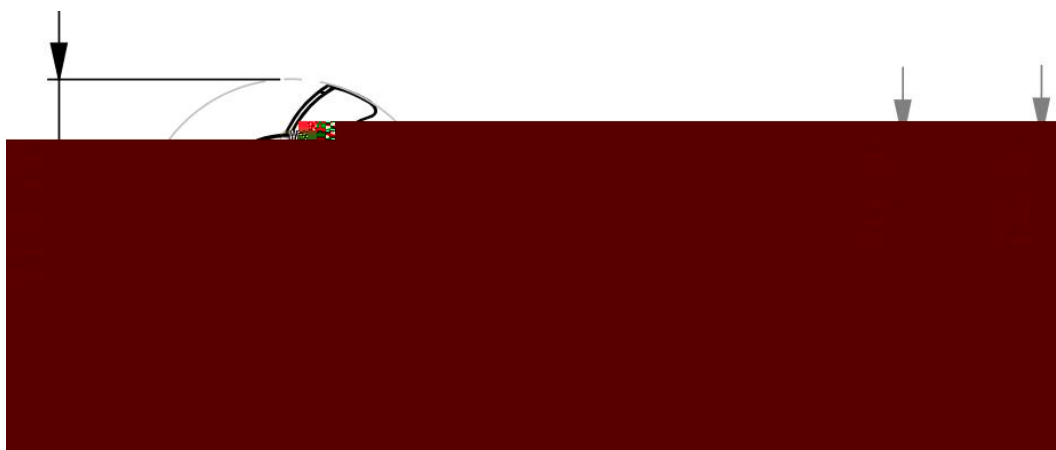
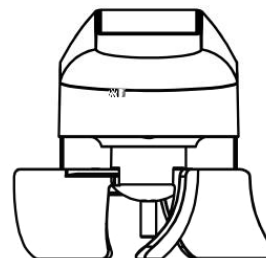
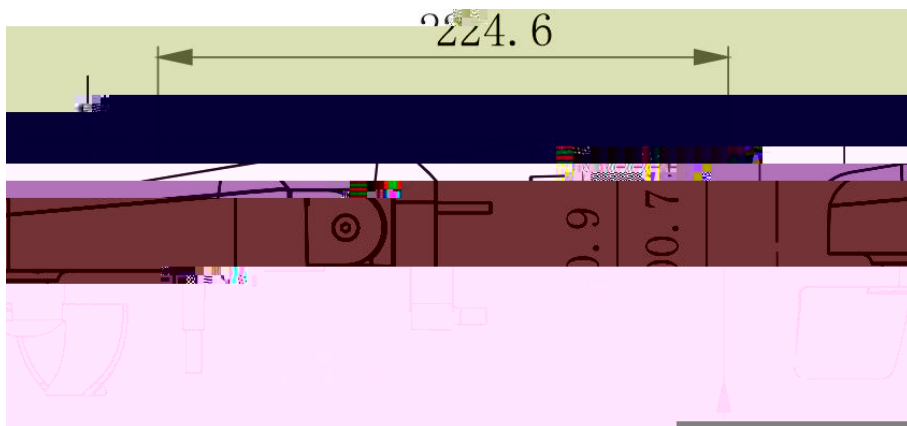
Pro

k

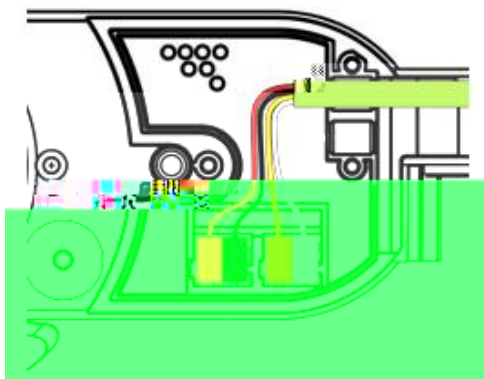
	IP44	
x	x	113*101*225mm
	≈260g	
	-25...+50°C	
	-30...+70°C	
K	21~30V DC	
	18mA/24V DC	15mA/30V DC
	450mW	
	≈5s	
	TP1-256	
	S-Mode	
	21.6~26.4V DC	
	65mA/24V DC	
	1.6W	
K	Ø0.8mms	
	5mm	
	-25...+50°C	
	2...30m/s[25°C]	
	0 Lux...150000 Lux	

K	G	2 2 2 /1.0	254
			254
			254

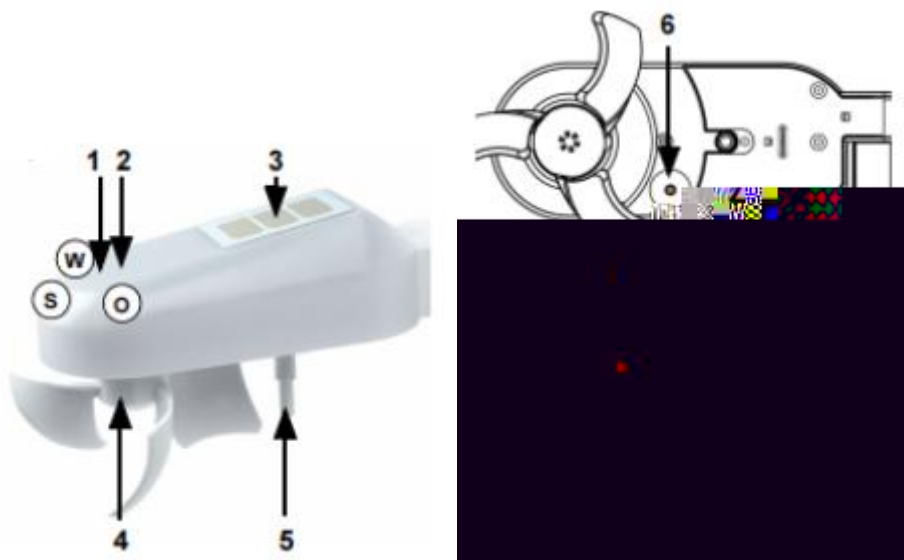
3.1



3.2



KNX	
+	+
-	-



1. k O = S = W =
2. GPS 3. 4. 5.
6. 7. LED

3.3



!

!

4 A

k

4 A

4 A

k

k

!

k

k

k

!

!

!

GPS

k

1

Fig. 1



2+3

!

!

60 cm

k

k

Fig. 2

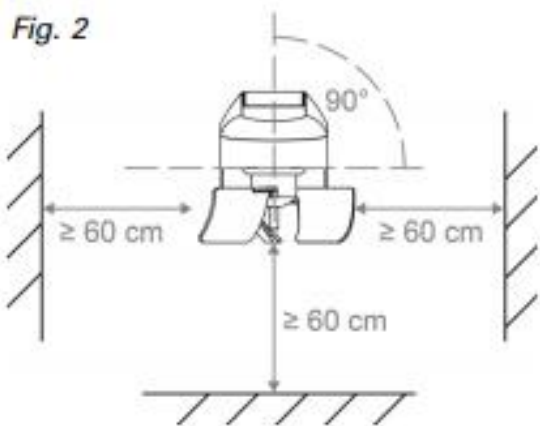


Fig. 3



4

k

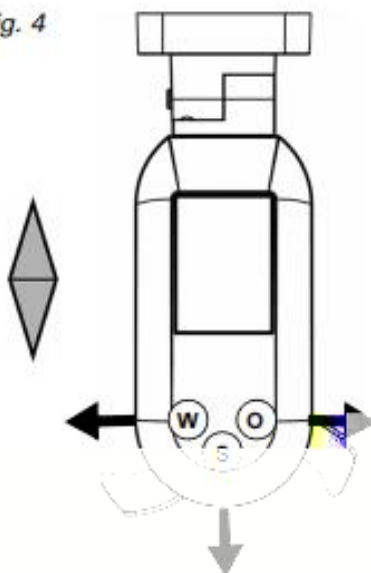
O = ;

S = ;

W = ,

k

Fig. 4



5

1. k

O =

S =

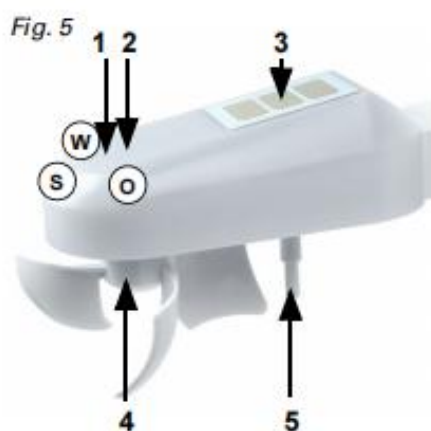
W =

2. GPS

3.

4.

5.



3 A

6

k

7 + 8a

KNX GPS

6 + 8b

k

7

30 mm

55 mm

k

!

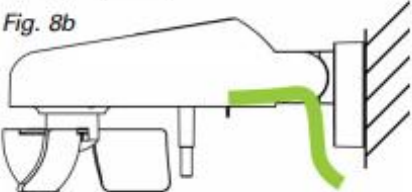
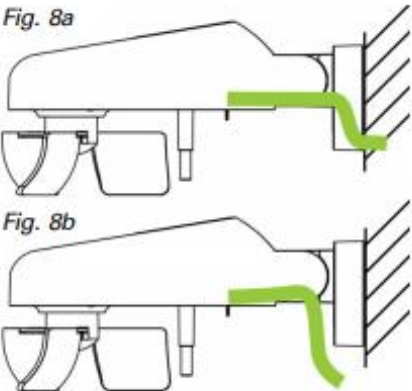
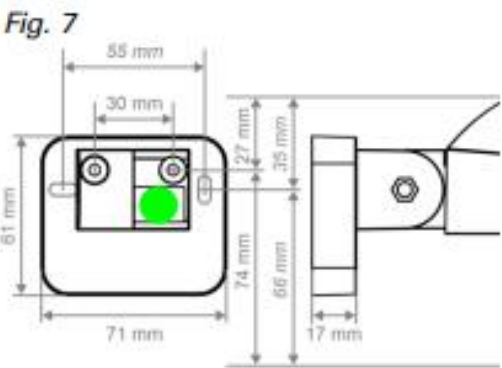
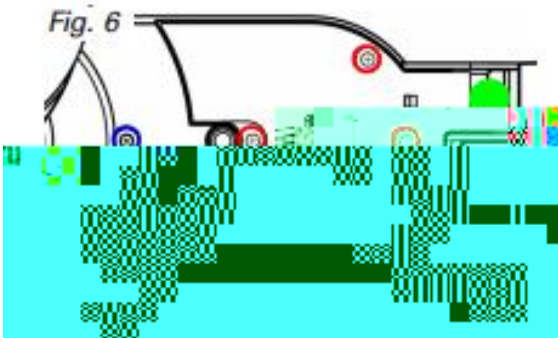
k

k

3 A

KNX GPS

k



k

k

9 k

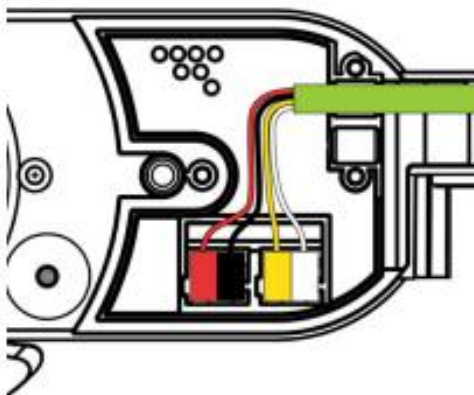
KNX	
+	+
-	-

3

6

k

Fig. 9



10 k

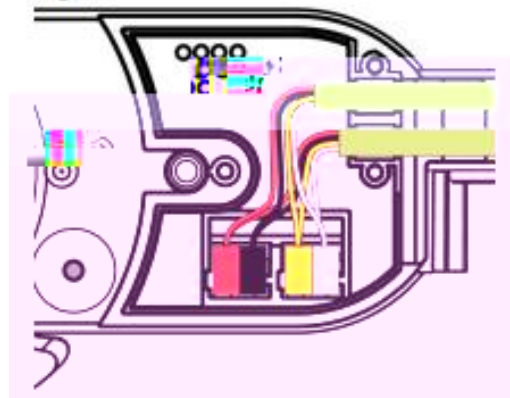
KNX

11 k

Fig. 10



Fig. 11



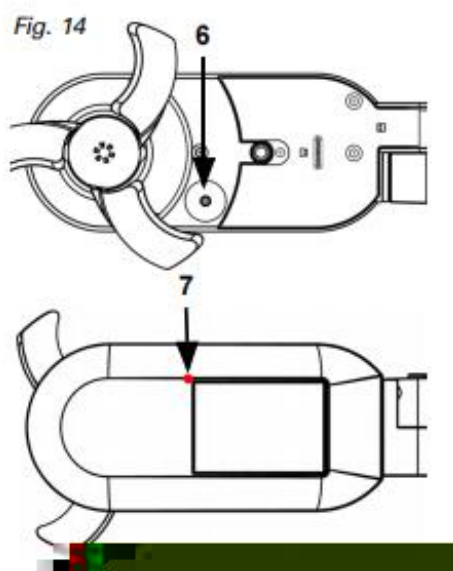
12

k

p k

KNX GPS

k



!

k



k

E

4.1

G

229

2

Transmission delays after
power-up and programming for

Measured values	5 sec	▼
Threshold values and switching outputs	5 sec	▼
Logic outputs	5 sec	▼
Maximum telegram quota	5 Telegrams per second	▼
send object auxiliary voltage status	not	▼

4.1

"General settings"

22

2

2

2

2

2

2

2

2

2

2

2

2

2

2

222

2

2

2

29

222

2

2

9

29

2

2

2

2

222

2

L

2

2

k

KNX

k

KNX

KNX

KNX

KNX

k

:

5

10

...

1.5

2



k

k

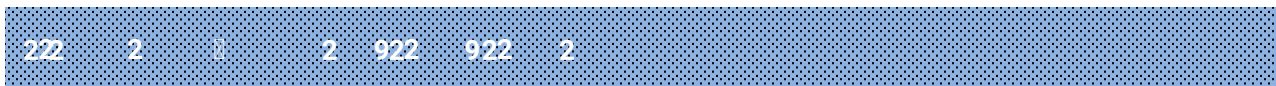
:

1 9 22 2 2 2

2 9 22 2 2 2

...

20 9 22 2 2 2



KNX GPS

k

k

k

:

2 2

2 2 2 2 2 2 2 2

22 2 9 (9 2 2 22 22 " 2 29") 2

"on change and periodically " "on change to 1 and periodically " and "on

change to 0 and periodically" . k

k

:

5

10

...

1.5

2

4.2

G

2

KNX GPS

GPS

k

KNX

/

KNX GPS

KNX GPS

k

GPS

k

KNX GPS

k

k

Date and time will be set by

GPS signal and transmitted on request and periodically

Send cycle

1 min

If there is no reception, GPS malfunction will be recognised after last reception/ reset

30 min

After auxiliary power is generated, the unit will take up to 10 minutes till GPS OK.

Object GPS malfunction transmits
(1 = Malfunction | 0 = no Malfunction)

on change and periodically

Send cycle

30 sec

4.2

"GPS settings"

222

2

D2

2

99

GPS

k

GPS

GPS

k

:

G 2 292 22 2 G

G 2 292 22 2 2 299 G 2

G 2 292 22 2 G

G 2 292 22 2 2 2 299 G 2 +

C 2 2 2

222 2 9

k

:

5

10

...

1.5

2

222 2 1 2 2 , G 29 29 2 2 2 2 29 2 /2

GPS

10

GPS

k

k

:

20

30

...

1.5

2

A 22 922 922 2 2 2 2 10 9G K.

G 10 k

22 2 G 29 22 (1= 29 0= 29)

GPS k k

:

2 2

2 2 1

2 2 0

2 2 2 2 2 2 2

2 2 1 2 2 2 2

2 2 0 2 2 2 2

22 2 9

“on change and periodically ” “on change to 1 and periodically ” and “on

change to 0 and periodically” . k

GPS k

:

5

10

...

1.5

2

4.3

L 2

KNX GPS

GPS

k

k

GPS

k

k

KNX GPS

/

k

ATTENTION:

For the UTC offset and

the summer/winter time change-over

the location must be set

Country

Germany ▼

Location

Aachen ▼

Time zone definition

☒ standard ☐ specific

Summer/winter time change-over on the

ST: Sun. after 25 March WT: Sun. after 25 Oct.

Rule for summer/winter time switching
and UTC offset

03257:0200+0100/10257:0200UTC+0100

Location coordinates

cyclically send ▼

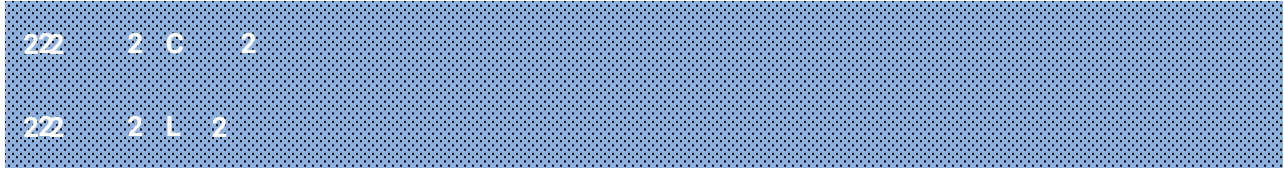
Send cycle

1 min ▼

4.3

"Location"

A E I : F 2 2 C 2 2 2 2 2 2 2 2 - 2 2 9 2 .
/ k



k

: 2 2 / B 2 / ... / K

: C 2

2 2 2 k

222 2 D 22 9 2 2 -180, +180 2

222 2 9 2 2 -59, +59 2

222 2 D 22 2 2 -90, +90 2

222 2 2 2 -59, +59 2

222 2 9 2 2 2 2 2 C

k

40- 43 ! 74- 0

: -180...+180

: -59...+59

: -90...+90

: -59...+59

222

2

2

Standard

/

k

Specific

ETS

k

:

2 22

2

222 2 2/ 2 2 2 - 2

:ST: Sun. after 25 March WT: Sun. after 25 Oct.

222 2 9 2 2/ 2 2 2 2 C

: [Specific]

03257:0200+0100/10257:0200UTC+0100

03257 [03 = 25 = 7 = 7 =]

0200 [02 = 00 =] =

+0100 [01 = 00 =] +0000 =

10257 [10 = 25 = 7 = 7 =]

0200 [02 = 00 =] =

UTC+0100 [01 = 00 =] (-1200 ... +1400)

k

:

0000 20ppDR

9 299 0

0 2 0 2 2

0 2 0 2 2 2 0 9 299

222 2

1-

...

10-

4.4

2

k

k

k

Use rain sensor ☐ No ☒ Yes

When it rains the switching output is ☐ 0 ☒ 1

Delays can be set via objects (in seconds) ☒ No ☐ Yes

Switch delay to rain

Switching delay to no rain after it is dry

Switching output sends

Use rain output 2 with fixed switching delays ☐ No ☒ Yes

No delay on rain recognition
5 minutes delay after drying

4.4

"Rain"

222

2

22

2

k

:

22 2 k

222 2 22 2 2

k

:

0

1

222 2 D 2 2 ()

k

:

222 2 22

222 2 22 2 2 2

"NO" k

/ k

: /5 /10 /.../1.5/2

: 5 /10 /.../1.5/2

222 2 2 2

k

:

2 2

2 2 1

2 2 0

2 2 2 2 2 2 2

2 2 1 2 2 2 2

2 2 0 2 2 2 2

22 2 9

“on change and periodically ” “on change to 1 and periodically ” and “on

change to 0 and periodically” . k

k

:

5

10

...

1.5

2



k

5 k

k

Switch delay to rain

Switching delay to no rain after it is dry

KNX/EIB

2 2 2 k

2 9 2 2 9 10 L .

10L

222 2 A 2 2 2

1 0 k

:

0

1

222 2 D 2 2 ()

k

:

222 2 2 2

222 2 2 2

“NO” k

k

: /5 /10 /.../1.5/2

: /5 /10 /.../1.5/2

222 2 2 2

k

:

2 2

2 2 1

2 2 0

2 2 2 2 2 2 2

2 2 1 2 2 2 2

2 2 0 2 2 2 2

222 2 9

“on change and periodically”, “on change to 1 and periodically” and “on change

to 0 and periodically” k

k

:

5

10

...

1.5

2

4.6

22 2

2

Offset in 0.1°C

Measured value

on change of

Send cycle

Use minimum and maximum values ☒ No ☐ Yes

Values are not maintained after reset ☒

or ☐ No ☐ Yes

☐ No ☐ Yes

☐ No ☐ Yes

☐ No ☐ Yes

☐ No ☐ Yes

☐ No ☐ Yes

Use object "Temperature sensor malfunction"

Use threshold value 1

Use threshold value 2

Use threshold value 3

Use threshold value 4

4.6

"Temperature"

222 2 0.1

k

k

:-50...50

222 2 2 2 29

k

:

⊠

9 299 ☐

☐ 2 ☐ 2 2

☐ 2 ☐ 2 2 2 ☐ 9 299

’ ’ 222 2 ☐ 9

“cyclically send”

“send in case of change and cyclically”

k

k

:

5

10

...

1.5☐

2☐

’ ’ 222 2 ☐ 2 2

“send in case of change”

“send in case of change and cyclically”

k

k

:

2%

5%

...

25%

50%

222	2	2	2	29
-----	---	---	---	----

k 18

k

:

222	2	22	2	2	29	2
-----	---	----	---	---	----	---

Temperature sensor fault

k

1 0 k

:

222	2	2	9	29	1/2/3/4
-----	---	---	---	----	---------

k

:

4.6.1

22 2 2 9 29 1/2/3/4

k

Threshold value:

Threshold value setpoint per

☒ Parameter ☐ Communication objects

Threshold value in 0.1°C

200

Switching distance (hysteresis) of the threshold value in %

20

Switching output:

Output is at (TV = threshold value) (SD = Switching distance)

TV above = 1 | TV - SD below = 0

Delays can be set via objects (in seconds)

☒ No ☐ Yes

Switching delay from 0 to 1

5 sec

Switching delay from 1 to 0

5 sec

Switching output sends

on change and periodically

Send

4.6.1

"Temperature threshold value 1/2/3/4"

22 2 2 9 29

2

2 2

k

$$\vdots$$

222 2

C 2

222 2 2 9 29 0.1

“parameter” k

k

Options: **-300...800**

22 2 2 2 (2) 2 9 29 %

k

k

k

k

: 0...50

2 9 29

2

2 2 2

k

22 2 29 2 2 29 2 2

k

1

k

•

2 2 2 9 2 22 2 22
 2 2 2 9 2 22 2 2 222 2 2
 ' ' 222 2 22 2 2 9 29 0.1, 29 91. 2

k

k

0.1 k

k

k

: -300...800

' ' 222 2 2 2 9 29 222

k

:

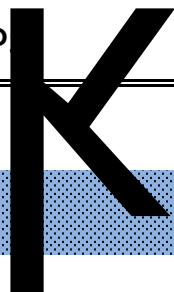
A 9 29

I 2 / 2 /

' ' 222 2 2

"Increment/decrement" k

k



2 : 2

222 WR 2 (= 2 9 2) (D= 2))

/ k

:

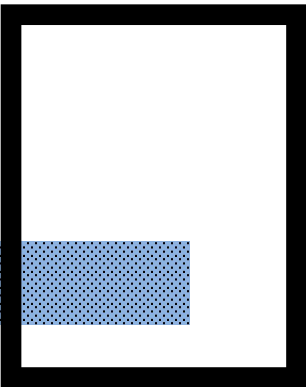
2 = 1 - D

2 = 0 - D 9 = 1

9 = 1 - D 2 = 0

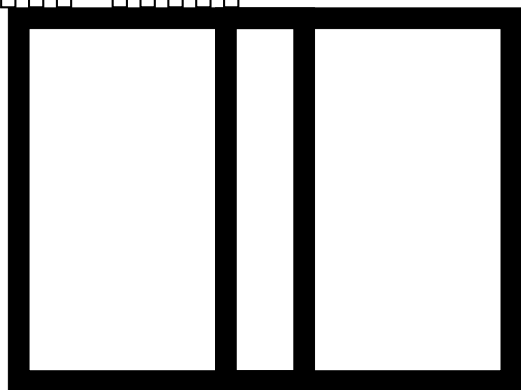
9 = 0 - D 2 = 1

222 2 D 9 2 2 2)

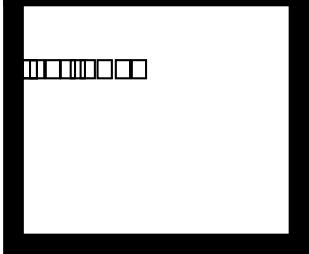


1 0 :

□□□□□□ □□□ □□□□□□



□□□□□□□□



□□

:

2 2

2 2 1

2 2 0

2 2 2 2 2 2 2 2

2 2 1 2 2 2 2 2

2 2 0 2 2 2 2 2

22 2 9

“on change and periodically”, “on change to 1 and periodically”, “on change to 0

and periodically” k

k

:

5

10

...

1.5

2

B9 2:



Blocking k

:

9 2 2 2 k

222 2 E 29 2 9 2

1 0 k

:

I 29 1: 9 29 0:2 9 2

I 29 0: 9 29 1:2 9 2

222 2 B9 2 29 2 1. 2

1 0 k

:

0

1

222 2 9 2

222 2 2 9 2 :(2 2 9 2 2)--- 2 / /

k

: 9 222 / 0/ 1

: " 2 " 2

4.7



Measured value	send in case of change and cyclically
on change of	10%
Send cycle	5 sec
Use maximum value	☐ No ☐ Yes
Value is not maintained after reset	
Use threshold value 1	☐ No ☐ Yes
Use threshold value 2	☐ No ☐ Yes
Use threshold value 3	☐ No ☐ Yes

4.7

"Wind"



k

:



9 29



2

2 2

2

2 2 2 9 29

' '

222

2



9

"cyclically send"

"send in case of change and cyclically"

k

k

:

5

10

...

1.5

2

222 2 2 2

“send in case of change”

“send in case of change and cyclically”

k

k

:

2%

5%

...

25%

50%

222 2 2 29

k

47 Wind measurement value reset max

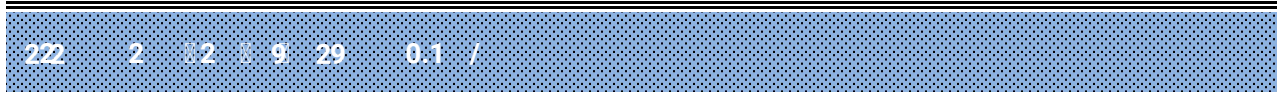
k

:

222 2 2 9 29 1/2/3

k

:



k

:1...350

4.6.1 ^k

4.8

B22

k

KNX GPS

k

Measured value

send in case of change and cyclically

on change of

10%

Send cycle

5 sec

Use threshold value 1

☐ No ☒ Yes

Use threshold value 2

☐ No ☒ Yes

Use threshold value 3

☐ No ☒ Yes

Use threshold value 4

☐ No ☒ Yes

threshold v

4.8

"Brightness"



k

k

k

:

⊠

9 29

⊠

⊠

2

⊠

2 2

⊠

2

⊠

2 2

2

⊠

9 29

' '

222

2

⊠

9

"cyclically send" "send in case of change and cyclically"

k

k

:

5

10

...

1.5

2

222 2 2 2

“send in case of change”

“send in case of change and cyclically”

k

k

:

2%

5%

...

25%

50%

222 2 2 9 29 1/2/3/4

k

:

4.8.1

B22

2 9 29 1/2/3

klux

k

Threshold value:

Threshold value set point per ☒ Parameter ☐ Communication objects

Threshold value in klux 60

Switching distance (hysteresis) of the threshold value in % 20

Switching output:

Output is at (TV = threshold value) (SD =)

Switching delay from 0 to 1 2 sec

Switching delay from 1 to 0 2 sec

Switching output sends on change and send delay

Send cycle 3 sec

Blocking

Use block of the switching output: ☐ No ☒ Yes

Evaluation of the blocking object: ☒ if value 1: block | if value 0: release ☐ if value 0: block | if value 1: release

Blocking object value before 1. communication ☒ 0 ☐ 1

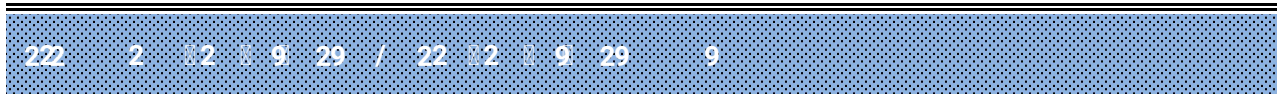
Behaviour of the switching output

With blocking Send 1

on release: (with 2 seconds release delay) Status object/s send/s

4.8.1

"Brightness threshold value 1/2/3"



k

: 1...150

4.6.1 k

4.9

D2

Use threshold value 1

☐ No ☒ Yes

Use threshold value 2

☐ No ☒ Yes

Use threshold value 3

☐ No ☒ Yes

4.9

"Dawn"

22 2 2 9 29 1/2/3

k

:

4.9.1

D2

☒ ☒ 2 ☒ 9 29 1/2/3

Threshold value:

Threshold value setpoint per

☒ Parameter ☐ Communication objects

Threshold value in lux

200

Switching distance (hysteresis) of the threshold value in %

20

Switching output:

Output is at (TV = threshold value) (SD = Switching distance)

TV above = 1 | TV - SD below = 0

Delays can be set via objects (in seconds)

☒ No ☐ Yes

Switching delay from 0 to 1

5 sec

Switching delay from 1 to 0

5 sec

Switching output sends

on change and periodically

Send cycle

5 sec

Blocking:

Use block of the switching output

☐ No ☒ Yes

Evaluation of the blocking object

☒ if value 1: block | if value 0: release
☐ if value 0: block | if value 1: release

Blocking object value before 1. communication

☒ 0 ☐ 1

Behaviour of the switching output

With blocking

Send 0

on release:
(with 2 seconds release delay)

Status object/s send/s

4.9.1

"Dawn of the threshold value 1/2/3



k

: 1...1000

4.6.1 k

4.10

2 2

4

k

1

k



1

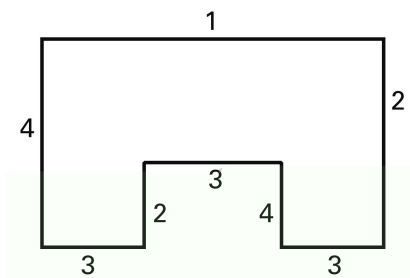
U

4

k

2

k



2

2

4

k

3

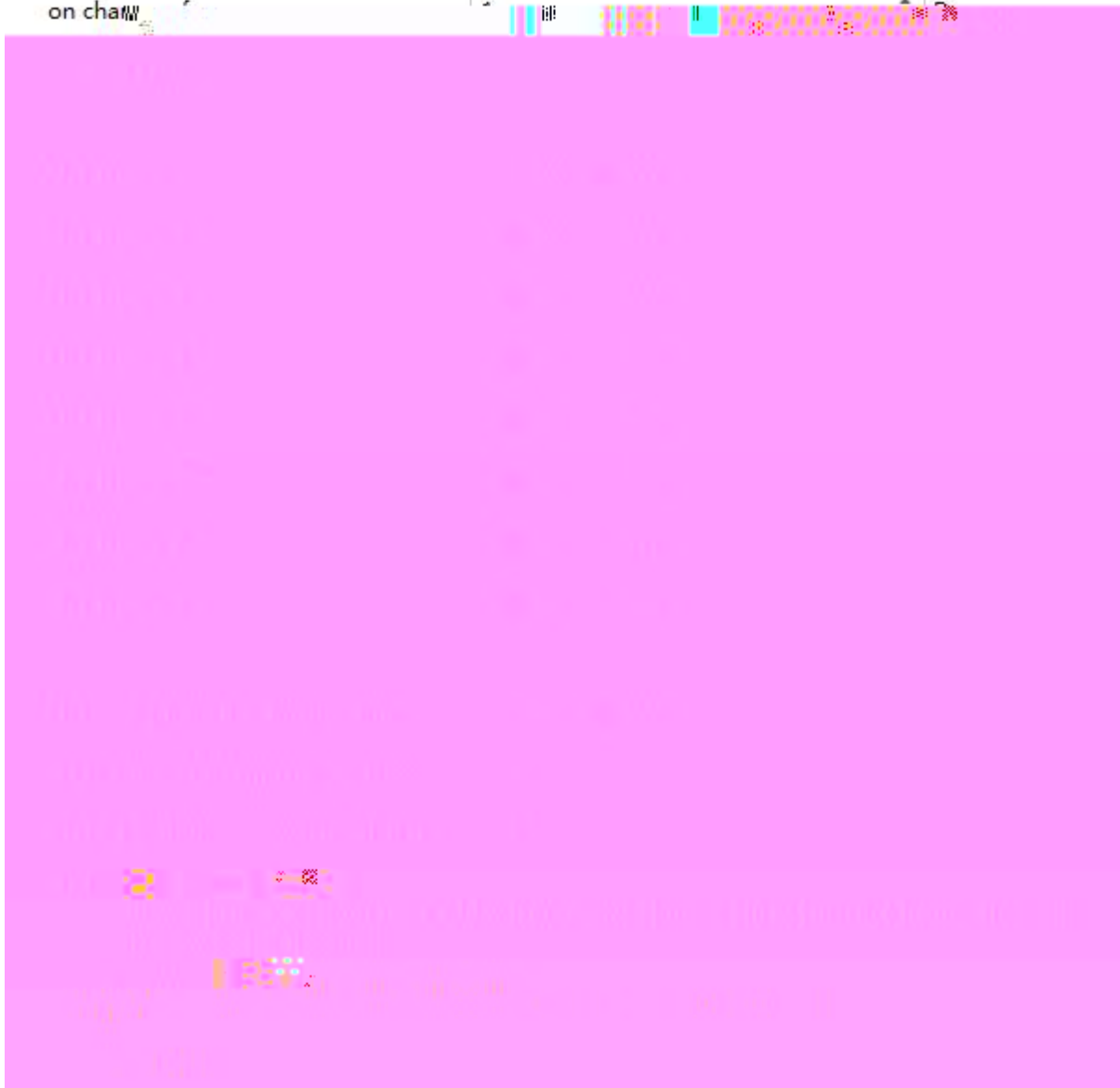
k



Sun position

send in case of change and cyclically

on change



4.10

"Shading"

222

2

2

KNX GPS

k

k

:

☐

9 299 ☐

☐ **2** ☐ **2 2**

☐ **2** ☐ **2 2 2** ☐ **9 299**

’ ’ **222** **2** ☐ **9**

“cyclically send” “send in case of change and cyclically” k .

k

:

5

10

...

1.5☐

2☐

’ ’ **222** **2** ☐ **2 2** **D 22**

“send in case of change” “send in case of change and cyclically” k

k

: **1...15**

222 **2** **2 2** **1/2/.../7/8**

k

:

222 2 2 2 22 2 2 2

114 Heat protection status

k

:

2 2 22 2 2 2 k

222 2 H 2 2 22 2 2 2

k

: 15...50

222 2 2 2 (2)

222 2 H 2 2 (H = 22 2 2 9 29 2) (D = 2 2)--

A 2 = H 1 2 9 H - D

-C

k

: 5...20

222 2 22 F2 2 2 2 2

1

0

k

:

2 2

2 2 1

2 2 0

2 2 2 2 2 2 2

2 2 1 2 2 2 2

2 2 0 2 2 2 2

222 2 9

“on change and periodically ” , “on change to 1 and periodically ” “on change

to 0 and periodically” k

Facade heat protection status k

:

5

10

...

1.5

2

4.10.1

2

22 9 9

22 2 22 22 2 2 2

k

k

4.8.1 k

:

B22 2 9 29 1

B22 2 9 29 2

B22 2 9 29 3

B22 2 9 29 4

22 2 2 2 (2) % 2 9 29

k

: 0...50

22 2

k

k

!

k

k

k

:

2 E2 (A 0 180)

2 - 2 (A 45 225)

2 (A 90 270)

2 2 - (A 135 315)

2 2 (A 180 360)

2 2 2

222	2	D	2	2	2
222	2	D	2	2	2
222	2	H	2	2	2
222	2	H	2	2	2

in the range k

:

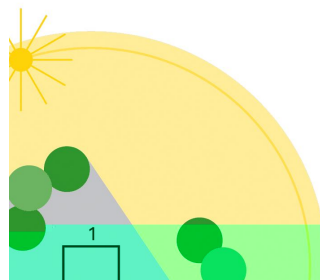
0...360-

0...360-

0...90-

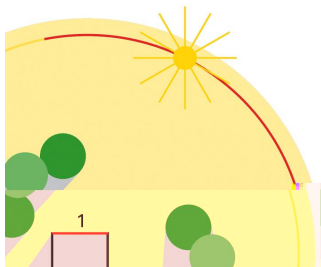
0...90-

k



1

k



k

53-

k

222 2 F2 2 292 (2 0-, E2 90-, 180-, 270-)

222 2 1 9 2 2 2 (0- = 9 2)

k 4.11.1.2.

:

0...360-

-90...90-

222 2 2 2 2

Type of tracking

Slat tracking

k

k 4.11.1.4. 4.11.1.5.

:

H 2 29

2 29

22 2 2 2 / 2 2 2 2 2 2 2

k

222 2 2 2 2

222 2 2 2 2

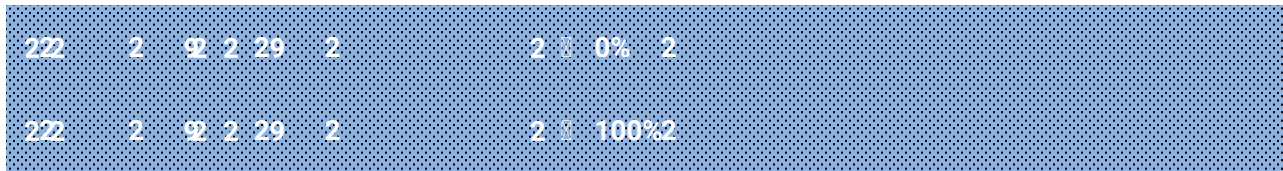
k 4.11.1.3.

: 1...1000

222 2 2 29 2 2 22 2 2 2

k

: 1...90-



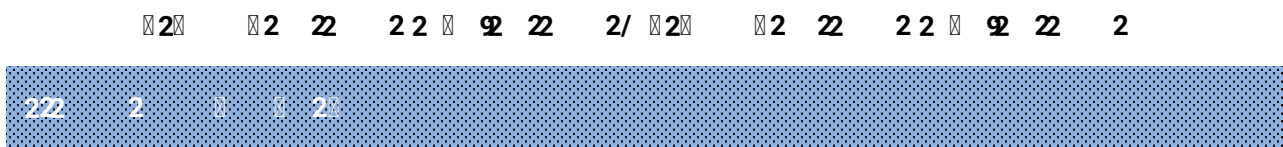
(0%)

(100%)

k

4.11.1.2.

: 0...180-



k

: 1...1000

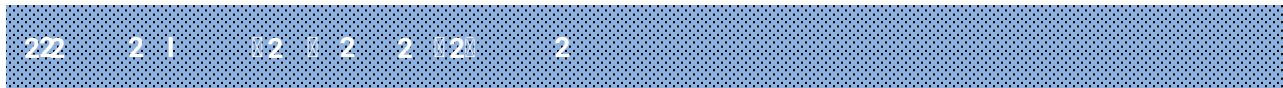


/

k

k

: 10...250

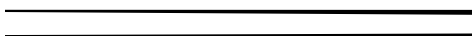


cm k

: 1...50

4.10.1.1





4.10.1.2

180- 270- k 1 k k α 0- 90-

k

a

0-

90-

1 a

2 $\alpha+90$

3 $\alpha+180$

4 α+270

4.10.1.3

k

k

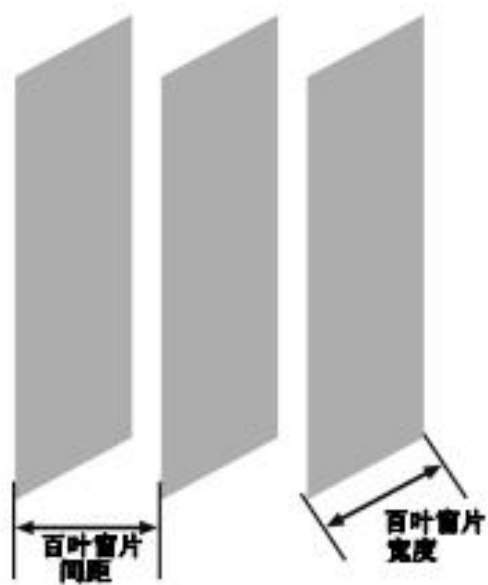
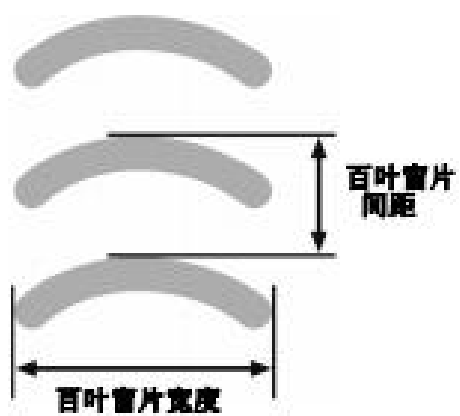
180-

k

KNX GPS

k

k



4.10.1.4

2

0%

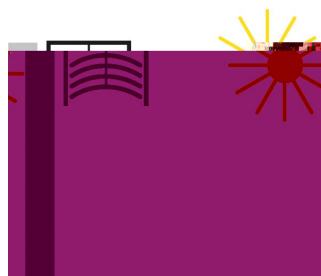
k

/

/0%

1

k



1

100%

k

k

100% k

($\delta = 0^-$)

k

Slat angle in ° after position command 100% k

/

/100% 100%

2

k

100%

$\alpha = 90^\circ - k$

SMI

k

Slat angle in ° after position command

0% k

$\alpha =$

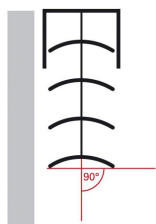
90- k

k

/

$\alpha=90^\circ$

3



08

8 !8

c8

4.10.1.5

100%

k

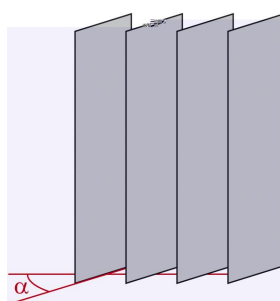
k

>0- k

/100%

1

k

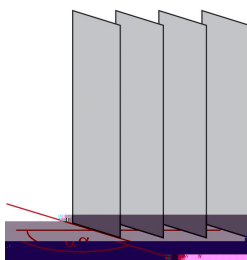


180- k

0% - k

0- 180- k

3 k



3

4.10.2

F2 2 1/.../8 A

k

4.10.1 k

If for more than

5 sec

Is light enough (brightness condition fulfilled)

AND

the sun is shining on the façade
(sun position condition fulfilled)

Then:

--> Object "Façade 1 status" = 1

--> Movement position

follows the shadow edge tracking

--> Slat position

75

%

If it is not bright enough

for more than

10 min

Then:

Change movement position

☐ No ☒ Yes

--> Movement position

100

%

Change slat position

☐ No ☒ Yes

--> Slat position

1

%

If afterwards

5 sec

it is still not bright enough

OR

the sun is no longer
shining on the façade

Then:

Object "Façade 1 status" = 0

Change movement position ☐ No ☒ Yes

--> Movement position %

Change slat position ☐ No ☒ Yes

--> Slat position %

Transmission behaviour of the object

Movement position and slat position ☐ send in case of change
☐ send in case of change and cyclically

Object 'Façade 1 status' transmits on change ▼

Heat protection:

☐ No ☐ Yes

Use heat protection

Actuation position %

Slat position %

Block and safety:

Behaviour after block

Blocking object value before 1. communication

Use safety (lower priority than block)

Action for safety = 1

☐ react to the last automatic command
wait for the next automatic command

☐ do not send positions
move to safe position (0% = 0%)

☒ react to the last automatic command

☐ wait for the next automatic command

Action for safety = 0

4.10.2

"Façade 1/.../8 Actions"

222 2 1 2 2 12

jš wS

k

□ :

0

5

...

1.5

2

I 92 2 (22 9 9)

A D

2 2 2 (9 9)

--> F2 2 1 2 = 1

222 2 --> --- 9 2 2 2 2

222 2 --> 9

I

5 KUK I B

R

I 22 2



k

k

:

0

5

...

1.5

2

k

k

k

1. k

2. k

3. k



k

:

’ ’ 222 2 --> 2

“yes” . k

k

: 0...100%



k

:

’ ’ 222 2 --> 2 2

“yes” . k

k

: 0...100%



k

k

:

0

5

...

1.5

2

9

22

2

9 2 2

2

2 2

F2 2 1 2 = 0

Actions:

1. 0 k

2. k

3. k

4. k

k

22 2 C 2 2

2

k

:

' '

22

2 -->

2

"yes"

. k

X

X

k

:

5

10

...

1.5

2



X

k

:

2 2

2 2 1

2 2 0

2 2 2 2 2 2 2

2 2 1 2 2 2 2

2 2 0 2 2 2 2

222 2 9

“on change and periodically ”, “on change to 1 and periodically ”, “on change to 0

and periodically” k

X

k

:

5

10

...

1.5

2

H 2 2 : 2

222

2

2 2

2

k

4.10

k

4.10

k

:

2 2

2

k

' '

222

2

A

2

2

k

:0...100%

' '

222

2

-->

2

2

k

:0...100%

B9 2 2

22 2 B 2 22 2 9

X 1 k

k

:

2 2 2 2 2 2 2 2 2 2

22 2 B9 2 29 2 1. 2

(1) (0) k

:

0

1

22 2 2 (9 2 2 2 2 9) 2

k

:

2 (9 2 2 2 2 9) 2 k

22 2 A 2 2 = 1

1

k

:

☒ RS-485 připojení k P-G-F...p

4.11

C29 22



k

k

Use period 1

☐ No ☒ Yes

Use period 2

☐ No ☒ Yes

Use period 3

☐ No ☒ Yes

4.11

"Calendar time switch"

22	2	2 1/2/3	2
----	---	---------	---

k

:

4.11.1

C29 22 9

2 1/2/3

2

From:

Month

Day

Up to and including:

Month

Day

Use sequence 1 ☐ No ☒ Yes

Activation time (hours)

Activation time (minutes)

Deactivation time (hours)

Deactivation time (minutes)

Switching output send

Send cycle

Use sequence 2 ☐ No ☒ Yes

Activation time (hours)

Activation time (minutes)

Deactivation time (hours)

Deactivation time (minutes)

Switching output sends

4.11.1

"Calendar clock period 1/2/3"

F2 / 2 9 2: 2

222 2

222 2 D2

k

:J2 22 /F 2 22 /.../ 2/D 2

:1...31

1/2

222 2 A 2 (2)

222 2 A 2 ()

222 2 D 2 2 (2)

222 2 D 2 2 ()

k

:0...23

:0...59

:0...23

:0...59

222 2 2 2 2

k

:

2 2

2 2 1

2 2 0

2 2 2 2 2 2 2

2 2 1 2 2 2 2

2 2 0 2 2 2 2

222 2 9

“on change and periodically ” , “on change to 1 and periodically ” “on change

to 0 and periodically” k

“Calendar timer time X, Seq. X: switching output”

k

:

5

10

...

1.5

2

4.12

9

⌘

k

k

4

k

Activations:

Monday

☐ No ☒ Yes

Tuesday

☐ No ☒ Yes

Wednesday

☐ No ☒ Yes

Thursday

☐ No ☒ Yes

Friday

☐ No ☒ Yes

Saturday

☐ No ☒ Yes

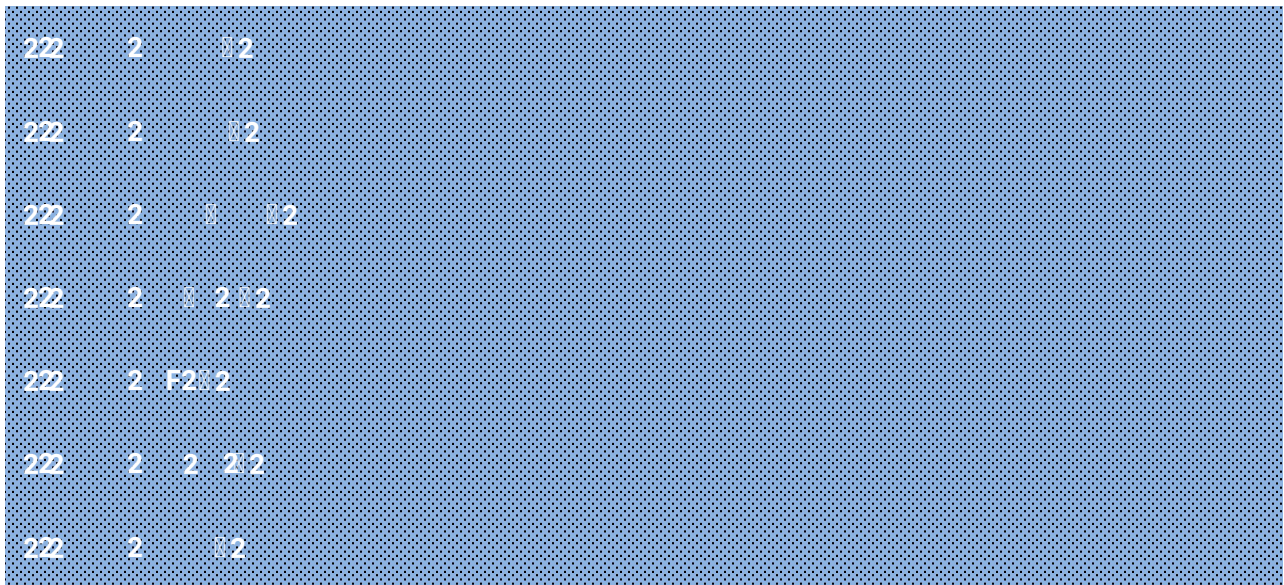
Sunday

☐ No ☒ Yes

4.12

"Weekly time switch"

A 2 :



k

: /

4.12.1

9 9

2 /.../ 2

Sequence 1:

Activation time
(hours)

0

Activation time
(minutes)

0

Deactivation time
(hours)

0

Deactivation time
(minutes)

0

Sequence 1 should be assigned to OR
link 1☒ No ☐ Yes

Switching output sends

on change and periodically

Send cycle

1 min

Sequence 2:

Activation time
(hours)

0

Activation time
(minutes)

0

Deactivation time
(hours)

0

Deactivation time
(minutes)

0

Sequence 2 should be assigned to OR
link 2☒ No ☐ Yes

Switching output sends

on change and periodically

Send cycle

1 min

Sequence 3:

Activation time (hours)

Activation time (minutes)

Deactivation time (hours)

Deactivation time (minutes)

Sequence 3 should be assigned to OR link 3 ☒ No ☐ Yes

Switching output sends

Send cycle

Sequence 4:

Activation time (hours)

Activation time (minutes)

Deactivation time (hours)

Deactivation time (minutes)

Sequence 4 should be assigned to OR link 4 ☒ No ☐ Yes

Switching output sends

Send cycle

4.12.1

"Weekly clock Monday/.../Sunday"

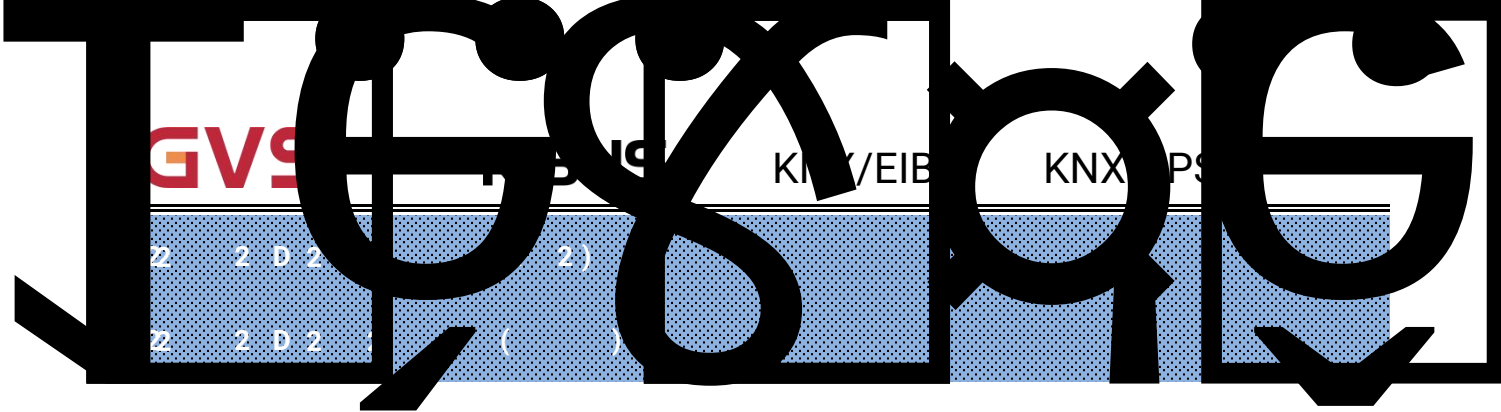
1/2/3/4

1/2/3/4

1

1

222	2	A	2	(2)
222	2	A	2	()



k

8:35

8:34

8:35

k

15:35

15:35

15:36

k

:0...23

:0...59

:0...23

:0...59



k

k

4.12.1.1



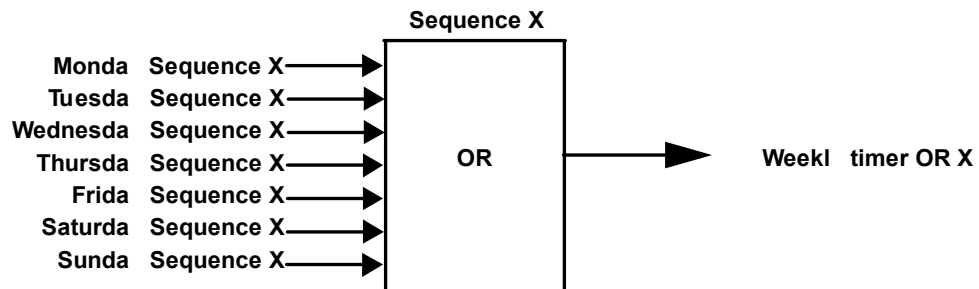
9 9

X

X

k

k



4.13

L 2

Use logic inputs

☐ No ☒ YesObject value before 1. communication
for:

- Logic input 1

☐ 0 ☒ 1

- Logic input 2

☒ 0 ☐ 1

- Logic input 3

☒ 0 ☐ 1

- Logic input 4

☒ 0 ☐ 1

- Logic input 5

☒ 0 ☐ 1

- Logic input 6

☒ 0 ☐ 1

- Logic input 7

☒ 0 ☐ 1

- Logic input 8

☒ 0 ☐ 1

- Logic input 9

☒ 0 ☐ 1

- Logic input 10

☒ 0 ☐ 1

- Logic input 11

☒ 0 ☐ 1

- Logic input 12

☒ 0 ☐ 1

- Logic input 13

☐ 0 ☐ 1

Logic input 14

☐ 0 ☐ 1

Logic input 15

☒ 0 ☒ 1

- Logic input 16

☒ 0 ☐ 1

AND logic:

AND logic 1 ☐ not active ☒ active

AND logic 2 ☒ not active ☐ active

AND logic 3 ☒ not active ☐ active

AND logic 4 ☒ not active ☐ active

AND logic 5 ☒ not active ☐ active

AND logic 6 ☒ not active ☐ active

OR logic:

OR logic 1 ☐ not active ☒ active

OR logic 2 ☒ not active ☐ active

OR logic 3 ☒ not active ☐ active

OR logic 4 ☒ not active ☐ active

OR logic 5 ☒ not active ☐ active

OR logic 6 ☒ not active ☐ active

4.13

"Logic"

222

2

92

2

k

:

9 2

2

k

29

2 1.

2

2

1

222

2 -L 2

1/.../16

2

16

k

k

:

0

1

A D/ 9 2 /

222 2 A D 9 2 1/.../6

222 2 9 2 1/.../6

/ k

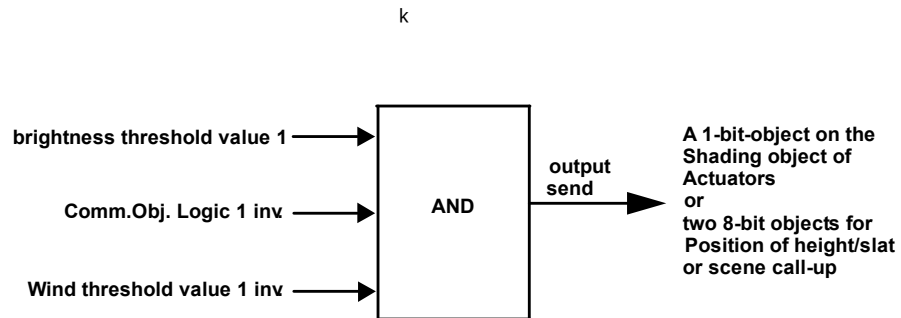
:

2

2

4.13.1

A D 9 2 1/.../6



1 brightness threshold value1

k

1 (comm.obj.logic 1 inverted)

k = 0 = 1 k

Communication objects logic

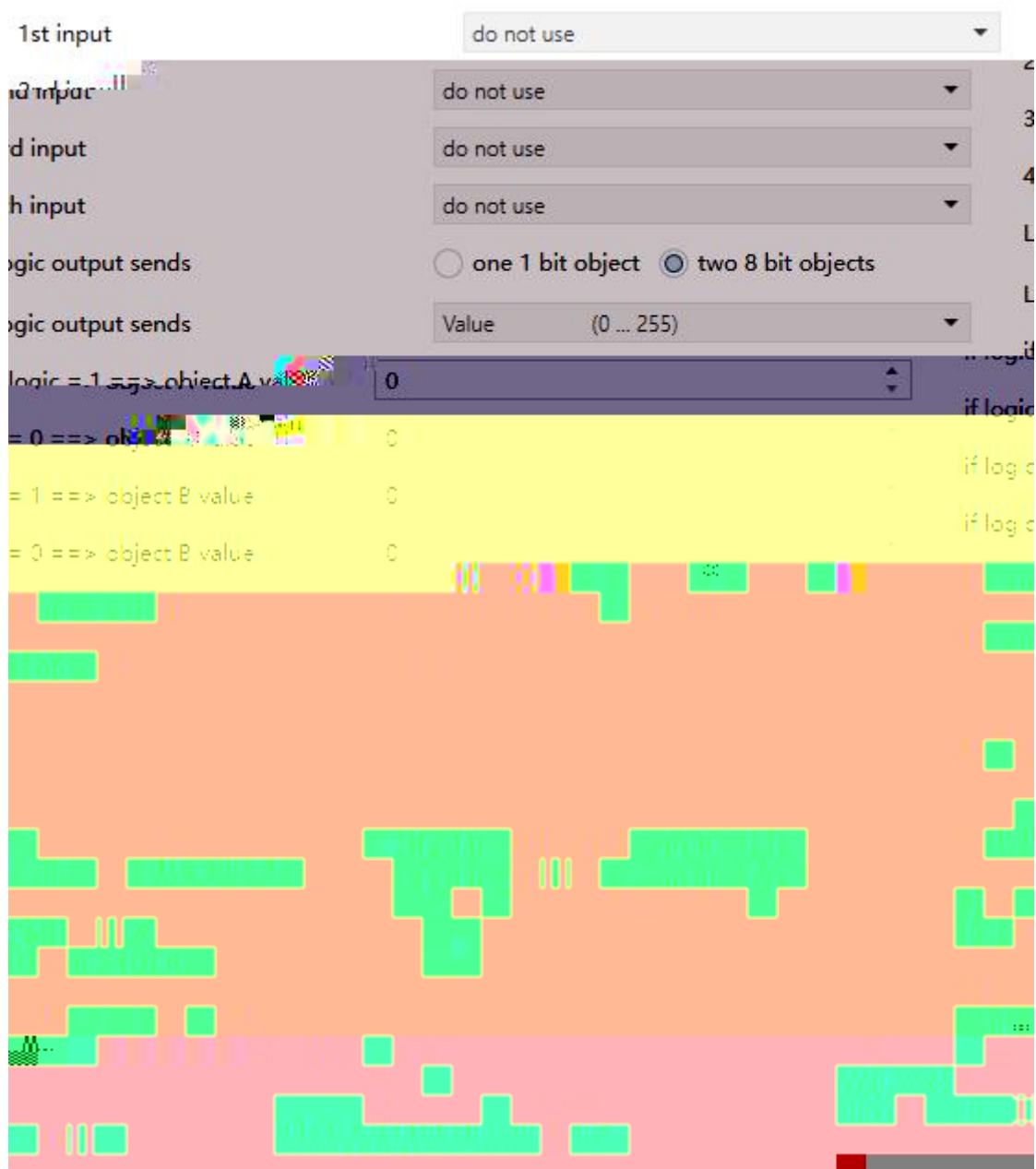
inputs

Communication object logic 1

k

1 wind threshold value 1 inverted

k



4.13.1

"AND logic 1/.../6"

222	2	1	2
222	2	2	2
222	2	32	2

222

2 4

2

k

:

D

L 2 1...16 2

L 2 1...16 2 2

G 29 =

G 29 = FF

22 2 2 29 2 =

22 2 2 29 2 = FF

...

9 9 1...4

9 9 1...4 2

222

2 L 2

2

1

8

k

:

1

8

9 2

1 2

k

222

2 | 9 2 = 1 ==>

29

222

2 | 9 2 = 0 ==>

29

1

k

:

0

1

9 2

⊠

8 2

k

222 2 L 2 ⊠ 2

222 2 I 9 2 = 1 ==> A 29

222 2 I 9 2 = 0 ==> A 29

222 2 I 9 2 = 1 ==> B 29

222 2 I 9 2 = 0 ==> B 29

8

k

: 29 (0...255)/ 2 (0%...100%)/A 29 (0-...360-)/ 29 (0...63) 2

:0...255

:0%...100%

:0-...360-

:0...63

222 2 22 ⊠ 2 2

k

:

⊠ 2 2 9 2

⊠ 2 2 9 2 1

⊠ 2 2 9 2 0

2 2	9 2	2	2	2	2	2	2	2
2 2	9 2	1 2	2	2	2	2	2	2
2 2	9 2	0 2	2	2	2	2	2	2
2 2	2 2	9						

“on change of logic and periodically ” , “on change of logic to 1 and periodically ”

and “on change of logic to 0 and periodically” k

k

:

5

10

...

1.5

2

X 1 = 2h

X 2 = 1 = 1 +1.0-C

X A= 0%

X B= 0%

X 1

B9 2

222 2 E 29 2 9 2

AND logic X: output block

1 0

k

:

I 29 1: 9 29 0: 2 9 2

I 29 0: 9 29 1: 2 9 2

222 2 B9 2 29 2 1. 2

(1)

(0)

k

:

0

1

B 2 2 2 2

222 2 9 2
222 2 2 9 2 (92 2 9 2 9)

k

:

D 9 222

29 29 2 = 0

29 29 2 = 1

:

With blocking

k

k

C

k

5.1 G 229 2

0 Output auxiliary voltage Auxiliary voltage status (1=ON|0=OFF) 1 bit C R - T - switch Low

5.1 “General settings”

					DPT
0	2 922 922	A 922 922 2 (1=	1 B	C, ,	1.001 ☒
0= FF)					
k					
1--					
0--					

5.1 “General settings”

5.2

G

2

1	Input/Output GPS	GPS date	3 bytes	C R W T U date	Low
2	Input/Output GPS	GPS time	3 bytes	C R W T U time of day	Low
3	Input GPS	Date and time request	1 bit	C - W - - trigger	Low
4	Output GPS	GPS malfunction	1 bit	C R - T - switch	Low

5.2

"GPS settings"

					DPT
1	I / G	G 2	3 B	C, , , ,	11.001 2
k 10 k					
2	I / G	G	3 B	C, , , ,	10.001 2
k 10 k					
3	I G	D2 2 2	1 B	C,	1.017 222 2
1 KNX k k					
4	G	G 29	1 B	C, ,	1.001
GPS 20min~2h GPS k					
1--					
0--					

5.2

"GPS settings"

5.3

L 2

5	Output location	Location longitude [°]	4 bytes	C	R	-	T	-	angle (degree)	Low
6	Output location	Location latitude [°]	4 bytes	C	R	-	T	-	angle (degree)	Low

5.3

"Location"

					DPT
5	9 2	L 2 9 2 ☐	4 B	C, ,	14.007 2 29 (☐ 22)
GPS k k					
6	9 2	L 2 ☐ ☐	4 B	C, ,	14.007 2 29 (☐ 22)
GPS k k					

5.3

"Location"

5.4

2

7	Output Rain 1	Rain Switching output 1	1 bit	C	R	-	T	-	switch	Low
8	Output Rain 2	Rain Switching output 2	1 bit	C	R	-	T	-	switch	Low
9	Input Rain	Switch delay to rain	2 bytes	C	R	W	-	-	time (s)	Low
10	Input Rain	Switching delay to no rain	2 bytes	C	R	W	-	-		

5.4

"Rain"

					DPT
7	2 1	2 2 1	C, ,	1 B	1.001
Switching output sends on change and periodically k 1-- 0--					
8	2 2	2 2 2	C, ,	1 B	1.001
5 k 1-- 0--					
9	1 2	2 2 2	C, ,	2 B	9.010 ()
s k					
10	1 2	2 2 2	C, ,	2 B	9.010 ()
s k					

5.4

"Rain"

5.5

2

11	Output Night	Night Switching output	1 bit	C	R	-	T	-	switch	Low
12	Input Night	Switching delay on night	2 bytes	C	R	W	-	-	time (s)	Low
13	Input Night	Switching delay to non-night	2 bytes	C	R	W	-	-	time (s)	Low

5.5

"Night"

					DPT
11	2	2 2	C, ,	1 B	1.001
k					
12	I 2	2 2 2	C, ,	2 B	9.010 ()
s k					
13	I 2	2 2 - 2	C, ,	2 B	9.010 ()
s k					

5.5

"Night"

5.6

22 2

2

14	Output temperature measurement value	Temperature measured value	2 bytes	C	R	-	T	-	temperature (°C)	Low
15	Input temperature measurement value	Temperature measurement value requirement min./max.	1 bit	C	-	W	-	-	trigger	Low
16	Output temperature measurement value	Temperature measurement value minimum	2 bytes	C	R	-	T	-	temperature (°C)	Low
17	Output temperature measurement value	Temperature measurement value maximum	2 bytes	C	R	-	T	-	temperature (°C)	Low
18	Input temperature measurement value	Temperature measurement value reset min./max.	1 bit	C	-	W	-	-	trigger	Low
19	Output temperature measurement value	Temperature Sensor Malfunction (0 = OK 1 = NOT OK)	1 bit	C	R	-	T	-	switch	Low
20	Input / Output Temperature TV 1	Temperature TV 1 Absolute value	2 bytes	C	R	W	T	U	temperature (°C)	Low
21	Input Temperature TV 1	Temperature TV 1 Change (1= 0: -)	1 bit	C	R	W	-	-	switch	Low
22	Input Temperature TV 1	Temperature TV 1 Switching delay from 0 to 1	2 bytes	C	R	W	-	-	time (s)	Low
23	Input Temperature TV 1	Temperature TV 1 Switching delay from 1 to 0	2 bytes	C	R	W	-	-	time (s)	Low
24	Output Temperature TV 1	Temperature TV 1 Switching output	1 bit	C	R	W	-	-	switch	Low
25	Input Temperature TV 1	Temperature TV 1 Switch output block	1 bit	C	R	W	-	-	switch	Low

5.6

“Temperature”

					DPT
14	22 2 2 2 29	22 2 2 2 29	C, ,	2 B	9.001 22 2 ()
k					
15	I 22 2 2 2 29	22 2 2 2 29 2 2 ./ 2 .	C,	1 B	1.017 222 2
/ 1 KNX					
k					
16	22 2 2 2 29	22 2 2 2 29	C, ,	2 B	9.001 22 2 ()
k					
17	22 2 2 2 29	22 2 2 2 29 2	C, ,	2 B	9.001 22 2 ()
k					
18	I 22 2	22 2 2 2	C,	1 B	1.017 222 2

	2 2 29	29 2 ./ 2 .			
/ k					
19	22 2 2 2 29	22 2 2 29 (0 = K 1 = K)	C, ,	1 B	1.001 ☒
k 1-- 0--					
20	I / 22 2 1	22 2 1 A 9 29	C, , ,	2 B	9.001 22 2 ()
1 1 k					
21	I 22 2 1	22 2 1 C☒ 2 2 (1:+ 0: -)	C, ,	1 B	1.001 ☒
1 k 1-- 1 0-- 1					
22	I 22 2 1	22 2 1 ☒ 2 ☒ 2 2 0 1	C, ,	2 B	9.010 ()
0 1 1 s k					
23	I 22 2 1	22 2 1 ☒ 2 ☒ 2 1 0	C, ,	2 B	9.010 ()

1 0 1 s k					
24	22 2 1	22 2 1 2	C, ,	1 B	1.001
1 Output is at(TV=threshold value)(SD=Switching distance) k					
25	I 22 2 1	22 2 1 9	C, ,	1 B	1.001
/ k 1-- 0--					

5.6

“Temperature”

5.7



44	Output wind measurement	Wind measurement	2 bytes	C	R	-	T	-	speed (m/s)	Low	45	Input wind
measurement value	Wind measurement value requirement max.		1 bit	C	-	W	-	-	trigger	Low	46	Output wind
d measurement	Maximum wind measurement value		2 bytes	C	R	-	T	-	speed (m/s)	Low	47	Input wind
measurement value	Wind measurement value reset max.		1 bit	C	-	W	-	-	trigger	Low	49	Input / Out
put Wind TV 1	Wind TV 1 Absolute value		2 bytes	C	R	W	T	U	speed (m/s)	Low	50	Input Wind
TV 1	Wind TV 1 Change (1+ [0: -)		1 bit	C	R	W	-	-	switch	Low	51	Input Wind
TV 1	Wind TV 1 Switching delay from 0 to 1		2 bytes	C	R	W	-	-	time (s)	Low	52	Input Wind
TV 1	Wind TV 1 Switching delay from 1 to 0		2 bytes	C	R	W	-	-	time (s)	Low	53	Output
Wind TV 1	Wind TV 1 Switching output		1 bit	C	R	-	T	-	switch	Low	54	Input W
nd TV 1	Wind TV 1 Switch output block		1 bit	C	R	W	-	-	switch	Low		

5.7

"Wind"

					DPT
44	$\frac{m}{s}$	$\frac{m}{s}$ 2 2	C, ,	2 B	9.005 $\frac{m}{s}$ (/)
$\frac{m}{s}$ k					
45	1 $\frac{m}{s}$ 2 2	$\frac{m}{s}$ 2 2 29	C,	1 B	1.017 222 2
29					
2 2 2 .					
1 KNX k					
46	$\frac{m}{s}$	2 $\frac{m}{s}$	C, ,	2 B	9.005 $\frac{m}{s}$ (/)
2 2 29					
$\frac{m}{s}$ k					
47	1 $\frac{m}{s}$ 2 2	$\frac{m}{s}$ 2 2 29	C,	1 B	1.017 222 2
29					
2 2 .					
k					
48	$\frac{m}{s}$ 2	$\frac{m}{s}$ 2 29	C, ,	1 B	1.001 $\frac{m}{s}$
(0 = K 1 = K)					
k					
1--					

0-

49 I / 1 1 A 9 29 C, , , 2 B 9.005 (/)

,

1

1

1 k

50 I 1 1 C 2 2 (1:+ 0: C, , 1 B 1.001 (

-)

1 k

1-

1

0-

1

51 I 1 1 2 2 C, , 2 B 9.010 ()

2 0 1

0

1

1

s k

52 I 1 1 2 2 C, , 2 B 9.010 ()

2 1 0

1

0

1

s k

1-- 1 0-- 1						
70	I	B22	1	B22 1 2	C, ,	2 B 9.010 ()
0 1 1 s k						
71	I	B22	1	B22 1 2	C, ,	2 B 9.010 ()
1 0 1 s k						
72		B22		B22 1 2	C, ,	1 B 1.001
1 Output is at(TV=threshold value)(SD=Switching distance) k						
73	I	B22	1	B22 1 2	C, ,	1 B 1.001
/ k 1-- 0--						

5.8

"Brightness"

5.9

D2

92	Input / Output Twilight TV 1	Twilight TV 1 Absolute value	2 bytes	C	R	W	T	U	lux (Lux)	Low
93	Input Twilight TV 1	Twilight TV 1 Change (1 to 0: -)	1 bit	C	R	W	T	U	switch	Low
94	Input Twilight TV 1	Twilight TV 1 switching delay from 1 to 0	2 bytes	C	R	W	T	U	sec (s)	Low
95	Input Twilight TV 1	Twilight TV 1 switching delay from 0 to 1	2 bytes	C	R	W	T	U	sec (s)	Low
96	Input Twilight TV 1	Twilight TV 1 switching delay	2 bytes	C	R	W	T	U	sec (s)	Low
97	Input Twilight TV 1	Twilight TV 1 switch output state	1 bit	C	R	W	T	U	switch	Low

5.9

“Dawn”

					DPT
92	I / 92 1	92 1 A 9 29	C, , , ,	2 B	9.004 9 (L)
1 1 k					
93	I 92 1	92 1 C 2 2 (1: + 0: -)	C, ,	1 B	1.001
1 k 1-- 1 0-- 1					
94	I 92 1	92 1 2 2 0 1	C, ,	2 B	9.010 ()
0 1 1 s k					
95	I 92 1	92 1 2 2 1 0	C, ,	2 B	9.010 ()
1 0 1 s k					
96	92 1	92 1 2 2	C, ,	1 B	1.001
1					

Output is at(TV=threshold value)(SD=Switching distance) ^k						
97	I	92	1	92 1	C, ,	1 B 1.001
/ k 1-- 0--						

5.9

"Dawn"

5.10

2

110	Output sun position	Sun position direction of the sun [°]	4 bytes	C R - T -	angle (degree)	Low
111	Output sun position	Sun position height of the sun [°]	4 bytes	C R - T -	angle (degree)	Low
112	Output sun position	Sun position direction of the sun [°]	2 bytes	C R - T -	humidity (%)	Low
113	Output sun position	Sun position height of the sun [°]	2 bytes	C R - T -	humidity (%)	Low
114	Output Façades	Façades Thermal insulation status	1 bit	C R - T -	switch	Low
115	Output Façade 1	Façade 1 Status	1 bit	C R - T -	switch	Low
116	Output Façade 1	Façade 1 Movement position [%]	1 byte	C R - T -	percentage (0..100...)	Low
117	Output Façade 1	Façade 1 Slat position [%]	1 byte	C R - T -	percentage (0..100...)	Low
118	Input Façade 1	Façade 1 (1 = blocked)	1 bit	C - W - -	switch	Low
119	Input Façade 1	Façade 1 Safety (1 = active)	1 bit	C - W - -	switch	Low

5.10

"Shading"

					DPT
110		2	C, ,	4 B	14.007 2 29 (22)
4 k					
111		9 2	C, ,	4 B	14.007 2 29 (22)
4 k					
112		2	C, ,	2 B	9.007 () (%)
2 k					
113		9 2	C, ,	2 B	9.007 () (%)
2 k					
114	F2 2	F2 2 2 29 2	C, ,	1 B	1.001
1--					

0--					
115	F2 2 1	F2 2 1 2	,	1 B	1.001
1 k					
116	F2 2 1	F2 2 1 % 2	,	1 B	5.001 2 22 (0...100%)
1 k					
117	F2 2 1	F2 2 1 2 %	,	1 B	5.001 2 22 (0...100%)
1 k					
118	I F2 2 1	F2 2 1 B9 (1 = 9)	C,	1 B	1.001
1 1 k					
119	I F2 2 1	F2 2 1 2 (1 = 2)	C,	1 B	1.001
1 1 k					

5.10

“Shading”

5.11

C29 22

2

155 Output Calendar time switch Period 1, Seq. 1 Calendar time switch Period 1, Seq. 1 Switching output 1 bit C R - T - switch Low

5.11 “Calendar time switch”

					DPT
155	C29 22 2 1, .1	C29 22 2 1, .1 2	C, ,	1 B	1.001
1 1 0 k					

5.11 “Calendar time switch”

5.12

9

⌘

161	Output Weekly time switch Monday 1	Weekly time switch Monday 1 Switching output	1 bit	C	R	-	T	-	switch	Low
162	Output Weekly time switch Monday 2	Weekly time switch Monday 2 Switching output	1 bit	C	R	-	T	-	switch	Low

5.12 “Weekly time switch”

					DPT
161/.../164	9	9 ⌘ 2	C, ,	1 B	1.001 ⌘
	⌘ 2 1/.../4	1/.../4 ⌘ 2			
1/.../4 1 1/.../4 0 k					

5.12 “Weekly time switch”

5.13

L 2

189	Input logic input 1	Logic input 1	1 bit	C - W - - switch	Low
190	Input logic input 2	Logic input 2	1 bit	C - W - - switch	Low
191	Input logic input 3	Logic input 3	1 bit	C - W - - switch	Low
192	Input logic input 4	Logic input 4	1 bit	C - W - - switch	Low
193	Input logic input 5	Logic input 5	1 bit	C - W - - switch	Low
194	Input logic input 6	Logic input 6	1 bit	C - W - - switch	Low
195	Input logic input 7	Logic input 7	1 bit	C - W - - switch	Low
196	Input logic input 8	Logic input 8	1 bit	C - W - - switch	Low
197	Input logic input 9	Logic input 9	1 bit	C - W - - switch	Low
198	Input logic input 10	Logic input 10	1 bit	C - W - - switch	Low
199	Input logic input 11	Logic input 11	1 bit	C - W - - switch	Low
200	Input logic input 12	Logic input 12	1 bit	C - W - - switch	Low
201	Input logic input 13	Logic input 13	1 bit	C - W - - switch	Low
202	Input logic input 14	Logic input 14	1 bit	C - W - - switch	Low
203	Input logic input 15	Logic input 15	1 bit	C - W - - switch	Low
204	Input logic input 16	Logic input 16	1 bit	C - W - - switch	Low
205	Output AND logic 1	AND logic 1 1 bit switching output	1 bit	C R - T - switch	Low
208	Input AND logic 1	AND logic 1 Output block	1 bit	C - W - - switch	Low
230	Output OR logic 1	OR logic 1 8 bit output A	1 byte	C R - T - counter pulses (0.....	Low
231	Output OR logic 1	OR logic 1 8 bit output B	1 byte	C R - T - counter pulses (0.....	Low
232	Input OR logic 1	OR logic 1 Output block	1 bit	C - W - - switch	Low
253	Output software version	Software version	2 bytes	C R - T - DPT version	Low

5.13

"Logic"

						DPT
189	I 9 2 1	L 2 1/.../16	C,	1 B	1.001	☒
Input 1/.../16 k						
205	A D 9 2 1	A D 9 2 11 ☒ 2 2	C, ,	1 B	1.001	☒
1 1bit k						
206/ 207	A D 9 2 1	A D 9 2 18 A/B	C, ,	1 B	☒ ☒ 2 2	
1 8bit k						
208	I A D 9 2 1	9 2 1 9	C,	1 B	1.001	☒
/ 1 k						
1--						

0--					
229	9 2 1	9 2 1	2	C, ,	1 B 1.001
1 1bit k					
230	9 2 1	9 2 1 8 A/B	2	C, ,	1 B 2 2
1 8bit k					
232	I 9 2 1	9 2 1	9	C,	1 B 1.001
/ 1 k					
1--					
0--					

5.13

“Logic”