

User manual



CU-DIN DRY 4-Z KNX
EC10430381





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1 Description

The ESYLUX KNX/EIB CU-DIN DRY 4-Z KNX uses the KNX/EIB BUS to communicate with other KNX devices. The database must be downloaded from the ESYLUX-Webpage to the device using ETS3.0E, ETS4 or ETS5, and this document describes how to use the product. Our products are manufactured according to EMC, electrical safety and environmental conditions.

The dry contact module is used to control loads, such as:

- **switch control**
- **dimming control**
- **shutter control**
- **flexible control**
- **scene control**
- **sequence control**
- **percentage control**
- **threshold control**
- **string control**
- **forced control**
- **PWM output**
- **5 logic control**
- **counting control**
- **5 logic control**
- **combination control**
- **LED status indicator**
- **alarm control**
- **heating control**
- **0-10V dimming**
- **other equipment**

Note: Use this product only as intended (as described in the user instructions). Do not make any changes or alterations as this will render any warranties null and void. You should check the device for damage immediately after unpacking it. If there is any damage, you should not install the device under any circumstances.

If you suspect that safe operation of the device cannot be guaranteed, you should turn the device off immediately and make sure that it cannot be operated unintentionally.



2 Safety instructions

- Work on the 230 V power system must be carried out by authorized personnel only, with due regard to the applicable installation regulations.
- Switch off the power supply before installing the system.
- The 21 – 30 V $\underline{\underline{AC}}$ KNX bus voltage cannot be used as 24 V $\underline{\underline{DC}}$ operating or auxiliary voltage.
- Please observe the installation instructions for the SELV protective measure.

3 Product function

The CU-DIN DRY 4-Z KNX is one of the products in the ESYLUX KNX/EIB series. It includes 4-channel signal input and 4-channel signal output. The signal input channel can receive signals from the temperature sensor and dry contacts. It offers 4-channel output DC 0-10V for the dimming signal or 4-channel drive for the LED status.

This module includes functions such as temperature collection, dry contact input, logic output, 0-10V dimming, sensor, LED driver function and control function including relay control, dimming control, curtain control, scene control, etc. in a logic control process where each logic combines with 4-signal input channels.

The CU-DIN DRY 4-Z KNX has three work modes:



- Sensor controller
- Logic controller
- Dimming controller



- **Sensor controller**

Switch controller Switch/Dimming controller; Shutter controller; Flexible controller; Scene controller; Sequence switch; Percentage controller; Threshold controller; String (14 bytes) controller; Forced position controller; Counter controller; Combination controller.

- **Logic controller**

Dry contact sensor; Temperature sensor; Block A; Object output 1 - 10.

- A1 Switching
- A2 Alarm
- A3 Shutter
- A4 Scene
- A5 Sequence
- A6 Percentage
- A7 Threshold
- A8 Threshold
- A9 String (14 bytes)
- A10 String (14 bytes)


- **Dimming controller**

Input A function; Dry contact sensor; Temperature sensor; 0-10 V ballast dimming; Staircase lighting; Flashing; Scene; Threshold; Heating.

4 Hardware

The technical properties of the ESYLUX KNX/EIB CU-DIN DRY 4-Z KNX are described in the following sections.

4.1 Technical data

Power supply	
<ul style="list-style-type: none">• Operating voltage (supply by the bus)	21–30 V 
<ul style="list-style-type: none">• Current consumption EIB/KNX (operate)	<25 mA



Input sensors	Switch/Temperature sensor
<ul style="list-style-type: none">Temperature sensor choice	CA-DIN TP for DRY 2.5 m

NOTE: You must use the special temperature sensor supplied by ESYLUX. The sensor type is CA-DIN TP for DRY 2.5m



Output/Input nominal values	
<ul style="list-style-type: none">Device type	CU-DIN DRY 4-Z KNX
<ul style="list-style-type: none">Number of output pins	4
<ul style="list-style-type: none">Number of output pins	4

Connections	
<ul style="list-style-type: none">EIB/KNX	Bus connection terminal 0.6 - 0.8 mm Ø, single core

Operation and display	
<ul style="list-style-type: none">Blue LED and push button indicates entering programming mode.	

Temperature range	
<ul style="list-style-type: none">Operation	0°C to +45° C
<ul style="list-style-type: none">Storage	-40°C to +55° C
<ul style="list-style-type: none">Transport	-25°C to +70° C

Environmental conditions	
Humidity	max. 93% Non-condensing

Appearance design	
<ul style="list-style-type: none">Dimensions (H x W x D)	50 x 50 x 14
<ul style="list-style-type: none">Weight (kg)	0.03



- Installation

Flush-mounted-junction-box

CE Mark in accordance with

- | | |
|----------------|--------------|
| • EMC Standard | 2004/1008/EC |
| • LVD Standard | 2006/95/EC |
| • RoHS | 2011/65/EU |

Loads

- Dimmable ballast

0-10V

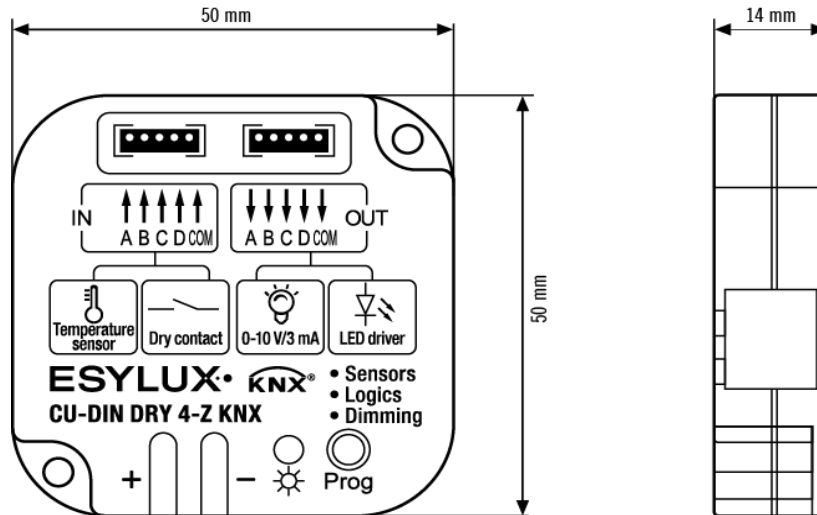
Application table

<ul style="list-style-type: none">• Dry contact functions	Sensor controller	Logic controller	Dimming controller
<ul style="list-style-type: none">• Max. number of communication objects	130	150	122
<ul style="list-style-type: none">• Max. number of group addresses	254	254	254
<ul style="list-style-type: none">• Max. number of associations	254	254	254

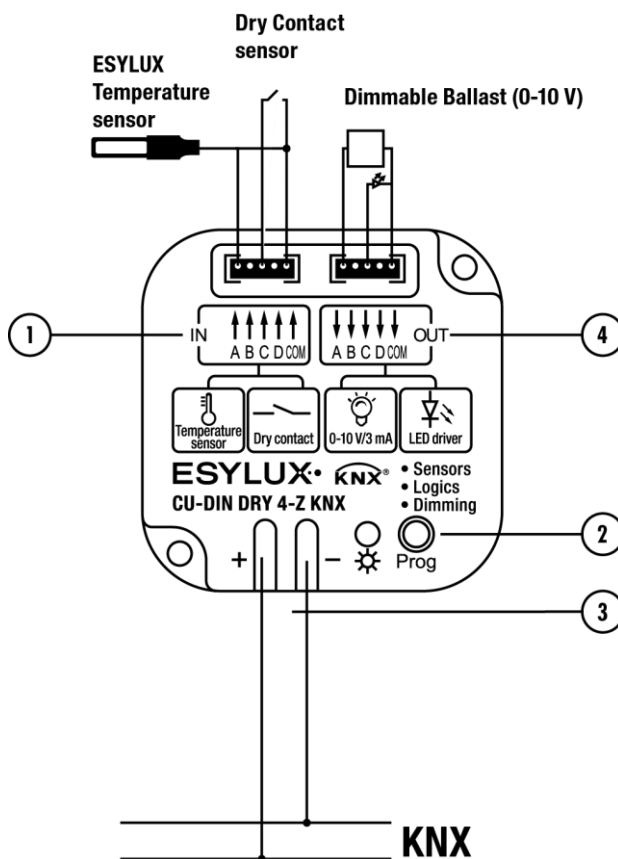
NOTE: Programming requires the KNX/EIB Software Tool ETS.



4.2 Dimensional drawings



4.3 Wiring diagram



- 1 Input pins, from left to right: A, B, C, D, COM
- 2 Programming button & programming LED
- 3 KNX/EIB
- 4 Output pin, contact to dimmable ballast or LED.

NOTE:

a) Dimensions of the space to be provided for each dry contact.



- b) Dimensions and position of the means for supporting and fixing the switch within this space
- c) Minimum clearance between the various parts of the switch and the surrounding parts where fitted
- d) Minimum dimensions of ventilation opening, if needed, and their correct arrangement.

4.5 Maintenance and warnings

- Please read this user manual carefully before any operation.
- Do not operate close to interfering devices.
- The site should be well ventilated with a good cooling environment.
- Pay attention to damp proofing, quakeproofing and dustproofing.
- Avoid contact with rain, other liquids or caustic gas.
- Please contact professional maintenance staff or the ESYLUX service centre for repairs.
- Remove dust regularly and do not wipe the unit with volatile liquids such as alcohol, petrol, etc.
- In case of contact with damp or liquid, turn off immediately.
- Check the circuitry and other related circuits or cables regularly, and replace inadequate circuitry promptly.
- The installation location should be well-ventilated, with no moisture, movement or dust.

5 Software

The ESYLUX KNX/EIB CU-DIN DRY 4-Z KNX database can be downloaded from the ESYLUX-Webpage. All parameters and interfaces are described in the following paragraph.

The device is connected to both a temperature sensor and dry contact, and can simultaneously send a variety of data items at one time which can handle many different types of KNX equipment.

The following paragraph describes the output and input settings in detail.



5.1 functions – Overview

The following table provides an overview of the functions and certain parameters of the switch actuators:

Sensor controller	
General	Heartbeat telegram
• Switch controller	x
• Switch/Dimming controller	x
• Shutter controller	x
• Flexible controller	x
• Scene controller	x
• Sequence controller	x
• Percentage controller	x
• Threshold controller	x
• String (14 bytes) controller	x
• Forced position controller	x
• Counter controller	x
• Combination controller	x
Logic controller	
• Switching	x
• Alarm	x
• Shutter	x
• Scene	x
• Sequence	x
• Percentage	x
• Threshold	x
• String (14 bytes)	x
Dimming controller	
• Scene no. 1-64	x



• Sequence	X
• Staircase light	X
• Flashing	X
• Scene	X
• Threshold	X
• Heating	X
• 1 bit/1 byte PWM control	X

Table 1: Database application overview.

NOTE: Each function and mode can only be used separately.

5.2 "General" function parameter

1.1.1 CU-DIN DRY 4-Z KNX > General

General

Work mode: Sensors controller

Channel A: System delay(2..255s) after bus voltage recovery: 2

Channel B: Heartbeat telegram(1..65535s;0-invalid): 0

Channel C: ->Temperature Quiver:<(threshold - n) or >(threshold + n) on out range: 1C

Channel D: Channel A: LED output: ☒ No ☐ Yes

Channel B: LED output: ☒ No ☐ Yes

Channel C: LED output: ☒ No ☐ Yes

Channel D: LED output: ☒ No ☐ Yes

Fig 1: "General" parameters window

The work mode can be set using the parameters in the general window.

- **Work mode**

Options: **Sensor controller**



Logic controller

Dimming controller

The CU-DIN DRY 4-Z KNX has three work modes. Further details regarding these three modes are provided below.

5.2.1 "Sensor controller" work mode

1.1.1 CU-DIN DRY 4-Z KNX > General		
General		
	Work mode	Sensors controller
Channel A	System delay(2..255s) after bus voltage recovery	2
Channel B	Heartbeat telegram(1..65535s,0-invalid)	0
Channel C	-> Temperature Quiver: <(threshold - n) or >(threshold + n) on out range	1C
Channel D		
LED output A	Channel A: LED output	<input type="radio"/> No <input checked="" type="radio"/> Yes
	Channel B: LED output	<input checked="" type="radio"/> No <input type="radio"/> Yes
	Channel C: LED output	<input checked="" type="radio"/> No <input type="radio"/> Yes
	Channel D: LED output	<input checked="" type="radio"/> No <input type="radio"/> Yes

Fig 2: "Sensor controller" parameter window

- **System delay (2-255 s) following bus voltage recovery**

The device experiences a delay for 2-255 s after powering on. The default value is 2 seconds. The min. value is 2 seconds and the max. value is 255 seconds.

Options: **2-255 s**

When the power is on and once the delay has timed out, the device begins working.

- **Heartbeat telegram (1-65535 s, 0 - invalid)**

The range of the parameter is 0 to 65535 s. 0 as the parameter value disables the function, other parameter values enable this function.

Options: **0-65535 s**



If the parameter is set to non-zero, the device will send telegram data cyclically when it times out. It alternates between sending the values 0 and 1. The user decides whether or not to use this function.

- **Temperature Quiver: $< (\text{threshold} - n)$ or $> (\text{threshold} + n)$ on out range**

If the temperature changes within the effective range, the status does not change.

When the temperature change is greater than n , the status will change. The quiver range is between $\text{threshold} - n$ and threshold or between threshold and $\text{threshold} + n$.

Options: **0-10°C**

- **Channel A: LED output**

The module has four output channels: channel A, channel B, channel C and channel D.

Options: **NO**
YES

If YES is selected, the "LED output A" setting page appears. This page shows how to set the LED parameter. The Channel B, C and D outputs are the same as channel A.

The screenshot shows a web-based configuration interface for a device. At the top, it says '1.1.1 CU-DIN DRY 4-Z KNX > General'. Below this is a sidebar with a 'General' tab selected, and a list of settings: 'Channel A', 'Channel B', 'Channel C', 'Channel D', and 'LED output A'. The main area displays the 'LED output A' settings. It includes a 'Work mode' dropdown set to 'Sensors controller'. Below that are three input fields: 'System delay(2..255s) after bus voltage recovery' with a value of '2', 'Heartbeat telegram(1..65535s,0-invalid)' with a value of '0', and a temperature quiver range dropdown set to '1C'. At the bottom, there is a 'Channel A: LED output' section with two radio buttons: 'No' and 'Yes', where 'Yes' is selected.

Setting	Value
Work mode	Sensors controller
System delay(2..255s) after bus voltage recovery	2
Heartbeat telegram(1..65535s,0-invalid)	0
->Temperture Quiver:<(threshold - n) or >(threshold + n) on out range	1C
Channel A: LED output	<input checked="" type="radio"/> Yes <input type="radio"/> No

Fig 2.1: "LED output A" parameter window



5.2.1.1 "LED output A" parameter window

1.1.1 CU-DIN DRY 4-Z KNX > LED output A

General	Output A function	LED status indication
Channel A	LED functionality	<input type="radio"/> Switch status ON/OFF <input checked="" type="radio"/> Flashing
Channel B	Maximum drive voltage of LED(100%)	2V
Channel C	Default ON brightness of LED	100%(255)
Channel D		
LED output A	LED control mode	<input checked="" type="radio"/> Local status <input type="radio"/> Via bus(1bit-Operation and 1byte-Brightness)
	Change ON brightness via bus	<input checked="" type="radio"/> No <input type="radio"/> Yes
	-LED status(1bit) response	Invalid
	-LED status(1byte) response	Invalid
	LED flashing indication	Flashing if value >= '1', else stop
	Duration time for brightness:base	100ms
	-Factor[1..255]->time=base*factor	1
	Duration time for darkness:base	100ms
	-Factor[1..255]->time=base*factor	1
	Flashing time limit	<input checked="" type="radio"/> No <input type="radio"/> Yes

Fig 3: "LED output A" parameter window

The CU-DIN DRY module's LED output has two functions.

- **LED functionality**

Options: **Switch state ON/OFF**
Flashing

Switch state ON/OFF: The LEDs show the current state of the connected switch.

Flashing: LED is flashing.



- **Select "Switch state ON/OFF"**

1.1.1 CU-DIN DRY 4-Z KNX > LED output A

General	Output A function	LED status indication
Channel A	LED functionality	<input checked="" type="radio"/> Switch status ON/OFF <input type="radio"/> Flashing
Channel B	Maximum drive voltage of LED(100%)	2V
Channel C	Default ON brightness of LED	100%(255)
Channel D		
LED output A	LED control mode	<input checked="" type="radio"/> Local status <input type="radio"/> Via bus(1bit-Operation and 1byte-Brightness)
	Change ON brightness via bus	<input checked="" type="radio"/> No <input type="radio"/> Yes
	-LED status(1bit) response	Invalid
	-LED status(1byte) response	Invalid
	LED indication	ON if value >= '1',else OFF
	LED automatically darker after a delay(Valid only LED status is ON)	<input checked="" type="radio"/> No <input type="radio"/> Yes
	LED status after bus voltage recovery	Unchanged

Fig 4: "Switch state ON/OFF" parameter window

- **Maximum LED drive voltage (100%)**

Sets the LED drive voltage. The range is 1V to 10V.

Options: **1V-10V**

- **Default LED ON brightness**

Sets the default LED brightness. The range is 10% to 100%.

Options: **10% - 100% (255)**

- **LED control mode**

Sets the LED control mode.

Options: **Local status**

Via bus (1 bit - operation and 1 byte - brightness) Local status: LED controlled by local status.

Via bus: LED controlled by telegram via the bus.

- **Change the brightness via the bus**

Enables changing the brightness via the bus system.

Options: **NO**
YES



NO: cannot change the brightness via the bus.

YES: can change the brightness via the bus.

- **LED status (1 bit) response**

Sets the LED status response.

Options: **Invalid**
 1 bit always response
 1 bit only changed

1 bit always response: it always responds.

1 bit only changed: it responds when the status is changed.

- **LED status (1 byte) response**

Options: **Invalid**
 1 byte always response
 1 byte only changed

1 byte always response: it always responds.

1 byte only changed: it responds only when the status is changed.

- **LED indication**

Options: **ON if value ≥ "1", else OFF**
 ON if value is "0", else OFF
 Always ON
 Always OFF

ON if value ≥ "1", else OFF: the value ≥ "1", LED is ON, else LED is OFF.

ON if value is "0", else OFF: the value is 0, LED is ON, else LED is OFF.

Always ON: LED is always ON.

Always OFF: LED is always OFF.

- **LED automatically darken delay time: base**

Sets the base delay time.

Options: **100 ms, 1 sec, 1 min 1 hour**

- **Factor(1-255)->time = base*factor**

Options: **1-255**

Sets the delay time; this time is option value*base. After this time, the LED automatically darkens to the set value.

- **LED State following bus voltage recovery**

Options: **OFF**
 ON

Sets the LED state following bus voltage recovery.



- **Select "Flashing"**

1.1.1 CU-DIN DRY 4-Z KNX > LED output A		
General	Output A function	LED status indication
Channel A	LED functionality	<input type="radio"/> Switch status ON/OFF <input checked="" type="radio"/> Flashing
Channel B	Maximum drive voltage of LED(100%)	2V
Channel C	Default ON brightness of LED	100%(255)
Channel D		
LED output A	LED control mode	<input checked="" type="radio"/> Local status <input type="radio"/> Via bus(1bit-Operation and 1byte-Brightness)
	Change ON brightness via bus	<input checked="" type="radio"/> No <input type="radio"/> Yes
	-LED status(1bit) response	Invalid
	-LED status(1byte) response	Invalid
	LED flashing indication	Flashing if value >= '1',else stop
	Duration time for brightness:base	100ms
	-Factor[1...255]->time=base*factor	1
	Duration time for darkness:base	100ms
	-Factor[1...255]->time=base*factor	1

Fig 5: "Flashing" parameter window

LED is flashing. The flashing parameters are set as follows.

- **Maximum LED drive voltage (100%)**

Sets the LED drive voltage. The range is 1V to 10V.

Options: **1V-10V**

- **Default LED ON brightness**

Sets the default LED brightness. The range is 10% to 100%.

Options: **10% - 100% (255)**

- **LED control mode**

Sets the LED control mode.

Options: **Local status**

Via bus (1 bit - operation and 1 byte - brightness)

Local status: LED controlled by local status.

Via bus: LED controlled by telegram via the bus.



- **Change the brightness via the bus**

Enables changing the brightness via the bus.

Options: **NO**
YES

NO: cannot change the brightness via the bus.

YES: can change the brightness via the bus.

- **LED status (1 bit) response Sets the LED status response.**

Options: **Invalid**
1 bit always response
1 bit only changed

1 bit always response: it always responds.

1 bit only changed: it responds when the status is changed.

- **LED status (1 byte) response**

Options: **Invalid**
1 byte always response
1 byte only changed

1 byte always response: it always responds.

1 byte only changed: it responds only when the status is changed.

- **LED indication**

Options: **Flashing if value ≥ "1", else stop**
Flashing if value is "0", else stop
Always flashing

Flashing if value ≥ "1", else OFF: value ≥ "1", LED is flashing, else LED is not flashing.

Flashing if value is "0", else OFF: the value is 0, LED is flashing, else LED is OFF.

Always flashing: LED is always flashing.

- **Brightness duration: base**

Sets the base delay time.

Options: **100 ms, 1 sec, 1 min 1 hour**

- **Factor(1-255)->time = base*factor**

Options: **1-255**

Sets the delay time; this time is option value*base. After this time, the LED automatically reaches the set brightness value.

- **Darkness duration: base**

Sets the base delay time.



Options: **100 ms, 1 sec, 1 min 1 hour**

- **Factor(1-255)->time = base*factor**

Options: **1-255**

Sets the delay time; this time is option value*base. After this time, the LED automatically darkens to the set value.

- **Flashing time limit**

Sets the flashing duration; after this time the LED will stop flashing

Flashing time limit	<input type="radio"/> No <input checked="" type="radio"/> Yes
-Flashing time limit:base	1sec
-Factor[1..255]->time=base*factor	5
-LED status after stop	OFF

- **LED State following bus voltage recovery**

Options: **OFF**
ON

Sets the LED state following bus voltage recovery.

5.2.1.2 "Channel A" parameter window

Using channel N as an input pin, there are two possible input methods:
Dry contact sensor and Temperature sensor.



5.2.1.2.1 "Dry contact sensor" parameter window

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Switch controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	Reaction when closing the contact	OFF
LED output A	Reaction when opening the contact	ON
	Delay for ON of switch(0..255s)	0
	Delay for OFF of switch(0..255s)	0
	Object value inverted when receiving from bus	<input checked="" type="radio"/> No <input type="radio"/> Yes
	Cyclic telegram of object	If switch is "ON"
	-Telegram is repeated of cycle time(second)	1
	-Telegram is repeated of number(1..255,0-unlimited)	0

Fig 6: "Dry contract sensor" parameter window

With input A being a dry contact sensor, the following settings must be completed.

- **Enable/Disable via bus**

Enables input A.

Options: **Enable**
Disable

Enable: enables input A. When this is selected, input A has certain functions.

Disable: disables input A.

- **Function selection**

Options: **Switch controller**
Switch/Dimming controller
Shutter controller
Flexible controller
Scene controller
Sequence controller
Percentage controller



Threshold controller
String (14 bytes) controller
Forced position controller
Counter controller
Combination controller

When different functions are selected, the parameter settings are also different.

- **Select "Switch controller"**

The screenshot shows a software interface for configuring a switch controller. On the left is a sidebar with a tree view containing 'General', 'Channel A' (highlighted in blue), 'Channel B', 'Channel C', 'Channel D', and 'LED output A'. The main area is titled '1.1.1.1 CU-DIN DRY 4-Z KNX > Channel A'. It contains several configuration parameters:

- Input A detection:** A dropdown menu set to 'Dry contact sensor'.
- 'Enable/Disable' via bus:** Radio buttons for 'Disable' and 'Enable', with 'Enable' selected.
- Function selection ==>:** A dropdown menu set to 'Switch controller'.
- Dry contact type:** Radio buttons for 'Mechanical switch' (selected) and 'Electronic switch'.
- Reaction when closing the contact:** A dropdown menu set to 'ON'.
- Reaction when opening the contact:** A dropdown menu set to 'Stop cyclic telegram'.
- Delay for ON of switch(0..255s):** A numeric input field set to '0'.
- Delay for OFF of switch(0..255s):** A numeric input field set to '0'.
- Object value inverted when receiving from bus:** Radio buttons for 'No' and 'Yes', with 'Yes' selected.
- Cyclic telegram of object:** A dropdown menu set to 'If switch is "ON"'. Below it, a note states '-Telegram is repeated of cycle time(second)'.
- Telegram is repeated of cycle time(second):** A numeric input field set to '1'.
- Telegram is repeated of number(1..255,0-unlimited):** A numeric input field set to '0'.
- Transmit object value after bus voltage recovery:** Radio buttons for 'No' and 'Yes', with 'Yes' selected.
- The operation time interval:base:** A dropdown menu set to '1min'.

Fig 7: "Switch controller" parameter window

There are two types of dry contact.

With input A as a dry contact, the function is switch controller.

- **Dry contact type**

Options: **Mechanical switch**
 Electronic switch



- The follow setting is for the mechanical switch type of dry sensor.

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Switch controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	Reaction when closing the contact	ON
LED output A	Reaction when opening the contact	Stop cyclic telegram
	Delay for ON of switch(0..255s)	0
	Delay for OFF of switch(0..255s)	0
	Object value inverted when receiving from bus	<input type="radio"/> No <input checked="" type="radio"/> Yes
	Cyclic telegram of object	If switch is "ON"
	-Telegram is repeated of cycle time(second)	1
	-Telegram is repeated of number(1..255,0-unlimited)	0
	Transmit object value after bus voltage recovery	<input type="radio"/> No <input checked="" type="radio"/> Yes
	The operation time interval:base	1min

Fig 7.1: "Mechanical switch" parameter window

- **Reaction when the contact is closed**

Options:

- Unchanged**
- ON**
- OFF**
- Toggle**
- Stop cyclic telegram**

When closing the dry contact a target variable is sent. 1 is ON, 0 is OFF.

Unchanged: it will send the same value as last time.

ON: it will send the value as 1.

OFF: it will send the value as 0.

Toggle: the dry contact is closed, the previous value is inverted and sent.

Stop cyclic telegram: this is mainly used for the following cycle settings



- **Reaction when the contact is opened**

Options: **Unchanged**
 ON
 OFF
 Toggle
 Stop cyclic telegram

When opening the dry contact a target variable is sent. 1 is ON, 0 is OFF.
The setting is the same as for closing.

- **Delay when switch ON (0-255 s)**
- **Delay when switch OFF (0-255 s) Options: (0-255 s)**

Sets the delay time for switch ON and OFF.
The range is 0-255 s.

- **Object value inverted when receiving from bus**

Options: **NO**
 YES

NO: when receiving the value from the bus it is not inverted.

YES: when receiving the value from the bus it is inverted.

- **Cyclic telegram of object**

Options: **NO**
 If switch is ON
 If switch is OFF
 Always transmission

NO: there is no cyclic function.

If switch is ON: If switch is OFF
 Always transmission:

- **Transmit object value following bus voltage recovery**

Options: **NO**
 YES

Whether or not to transmit the object value following bus voltage recovery.

- **Operation time interval: base**

Options: **10 ms, 100 ms, 1 sec, 1 min, 1 hour**
Factor (1-255)->time=base*factor

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.



- The follow setting is for the electronic switch type of dry sensor.

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Switch controller
Channel C	Dry contact type	<input type="radio"/> Mechanical switch <input checked="" type="radio"/> Electronic switch
Channel D	The normally contact status is	<input type="radio"/> Closed <input checked="" type="radio"/> Open
LED output A	Reaction when short button operation	ON
	Reaction when long button operation	OFF
	Long button time after	1s
	Delay for ON of switch(0..255s)	0
	Delay for OFF of switch(0..255s)	0
	Object value of short button inverted when receive from bus	<input checked="" type="radio"/> No <input type="radio"/> Yes
	Object value of long button inverted when receive from bus	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval:base	10ms
	-Factor[1..255]->time=base*factor	1

Fig 7.2: "Electronic switch" parameter window

- **Normal contact status is**

Options: **Close**

Open

Sets the dry contact status when not operating.

Close: the contact status is closed.

Open: the contact status is open

- **Reaction to short button operation**
- **Reaction to long button operation**

Options: **Invalid**
Unchanged
ON
OFF
Toggle

These two parameters concern the reaction when buttons are operated.



- **Delay when switch ON (0-255 s)**
- **Delay when switch OFF (0-255 s) Options: 0-255 s**

Sets the delay time for switch ON and OFF.

The range is 0-255 s.

- **Object value inverted when receiving from bus**

Options: **NO**

YES

NO: when receiving the value from the bus it is not inverted.

YES: when receiving the value from the bus it is inverted.

- **Operation time interval: base**

Options: **10 ms, 100 ms, 1 sec, 1 min, 1 hour**

Factor (1-255)->time=base*factor

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.

- **Select "Switch/Dimming controller"**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Switch/Dimming controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	Reaction when closing the contact	Dim->Brighter/Darker
LED output A	Reaction when opening the contact	Dim->Stop
	Dimming steps(Brightness changed on every sent telegram)	Step1 (100%)
	Dimming telegram repeat enabled(valid only when dimming up/down)	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval:base	10ms
	-Factor[1..255]->time=base*factor	1

Fig 8: "Switch/Dimming controller" parameter window

With input A as a dry contact and function "switch controller".

- **Dry contact type**

Options: **Mechanical switch**



Electronic switch

There are two types of dry contact; the settings are detailed as follows.

- **Mechanical switch**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Switch/Dimming controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	Reaction when closing the contact	Dim->Brighter/Darker
LED output A	Reaction when opening the contact	Dim->Stop
	Dimming steps(Brightness changed on every sent telegram)	Step1 (100%)
	Dimming telegram repeat enabled(valid only when dimming up/down)	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval:base	10ms
	-Factor[1..255]->time=base*factor	1

Fig 8.1: "Mechanical switch" parameter window

- **Reaction when the contact is closed:**

Sets the function when the dry contact is closed.

Options:

- Invalid
- Dim->Brighter
- Dim->Darker
- Dim->Brighter/Darker
- Dim->Stop

Invalid: the dry contact is invalid.

Dim->Brighter: increases the brightness when the dry contact is closed.

Dim->Darker: decreases the brightness when the dry contact is closed.

Dim->Brighter/Darker: increases/decreases the brightness when the dry contact is closed.

Dim->Stop: stops when the dry contact is closed.

- **Reaction when the contact is opened:**

Sets the function when the dry contact is opened; the setting is the same as for when the contact is closed.



- **Dimming steps (Brightness changed with each telegram sent):**

Options: **Step 1 (100%)**
 Step 2 (50%)
 Step 3 (25%)
 to
 Step 7 (1.56%)

Sets the brightness value for each change.

- **Dimming telegram repeat enabled (valid only when dimming up/down):**

Options: **Disable**
 Enable

Whether or not to repeat the receiving telegram.

Disable: receiving telegram not repeated.

Enable: receiving telegram repeated when dimming up/down. When enable is selected, the following parameters are available.

Dimming telegram repeat enabled(valid only when dimming up/down) <input type="radio"/> Disable <input checked="" type="radio"/> Enable	
-Dimming telegram repeated time	0.4s
-Dimming telegram repeated number (1..255,0-unlimited)	0

- **Dimming telegram repeat time**

Options: **0.2 s-60 s**

Dimming telegram repeat number (1-255, 0 - unlimited) Options: 0-255

- **Transmit object value following bus voltage recovery**

Options: **NO**
 YES

Whether or not to transmit the object value following bus voltage recovery.

- **Operation time interval: base**

Options: **10 ms**
 100 ms
 1 sec
 1 min
 1 hour



- **Factor (1-255) ->time=base*factor**

Options: **1-255**

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.

- **Electronic switch**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Switch/Dimming controller
Channel C	Dry contact type	<input type="radio"/> Mechanical switch <input checked="" type="radio"/> Electronic switch
Channel D	The normally contact status is	<input type="radio"/> Closed <input checked="" type="radio"/> Open
LED output A	Reaction when short button operation	Toggle
	Reaction when long button operation	Dim->Brighter/Darker
	Long button time after	1s
	Delay for ON of switch(0..255s)	0
	Delay for OFF of switch(0..255s)	0
	Dimming steps(Brightness changed on every sent telegram)	Step1 (100%)
	Dimming telegram repeated enable	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
	The operation time interval:base	10ms
	-Factor[1..255]->time=base*factor	1

Fig 8.2: "Electronic switch" parameter window

- **Normal contact status is**

Options: **Close**
Open

Sets the dry contact status when not operating.

Close: the contact status is closed.

Open: the contact status is open.

- **Reaction to short button operation**
- **Reaction to long button operation**

Options: **Invalid**
Unchanged
ON



**OFF
Toggle**

- **Reaction to long button operation**

Options: **Invalid**

- **Delay when switch ON (0-255 s)**
- **Delay when switch OFF (0-255 s)**

Options: **0-255 s**

Sets the delay time for switch ON and OFF.

The range is 0-255 s.

- **Object value inverted when receiving from bus**

Options: **NO**
YES

NO: when receiving the value from the bus it is not inverted.

YES: when receiving the value from the bus it is inverted.

- **Operation time interval: base**

Options: **10 ms, 100 ms, 1 sec, 1 min, 1 hour**

Factor (1-255)->time=base*factor

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.



- **Select "Shutter controller"**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Shutter controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	Reaction when closing the contact	Moving->DOWN
LED output A	Reaction when opening the contact	Invalid
	Delay for Stepping of shutter(0..255s)	0
	Delay for Moving of Shutter(0..255s)	0
	Stepping telegram repeated enabled	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
	Moving stopped telegram enabled(Adjust telegram used for stop)	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval;base	10ms

Fig 9: "Shutter controller" parameter window

With input A as a dry contact and function "shutter controller".

- **Dry contact type**

Options: Mechanical switch
 Electronic switch

There are two types of dry contact; the settings are detailed as follows.



- **Mechanical switch**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Shutter controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	Reaction when closing the contact	Moving->DOWN
LED output A	Reaction when opening the contact	Invalid
	Delay for Stepping of shutter(0..255s)	0
	Delay for Moving of Shutter(0..255s)	0
	Stepping telegram repeated enabled	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
	Moving stopped telegram enabled(Adjust telegram used for stop)	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval;base	10ms

Fig 9.1: "Mechanical switch" parameter window

- **Reaction when the contact is closed:**
- **Reaction when the contact is opened:**

Sets the function when the dry contact is opened/closed.

Options:

Invalid

Stepping->Increase

Stepping->Decrease

Stepping->Toggle

Stepping->Repeat telegram stopped

Moving->UP

Moving->DOWN

Moving->Toggle

Invalid: invalid when the dry contact is opened/closed.

Stepping->Increase: increases when the dry contact is closed. Stepping->Decrease: decreases when the dry contact is closed.

Stepping->Toggle: toggles when the dry contact is closed.

Stepping->Repeat telegram stopped: repeat telegram stopped when the dry contact is closed.

Moving->UP: up when the dry contact is closed.

Moving->Down: down when the dry contact is closed.



Moving->Toggle: toggles when the dry contact is closed.

When opening the dry contact, the setting is the same as for closing the contact.

- **Shutter stepping delay (0-255 s)**
- **Shutter movement delay (0-255 s) Options: 0-255 s**

Sets the delay time for shutter stepping/movement.

- **Stepping telegram repeat number (1-255, 0 - unlimited)**

Options: **Disable**

Enable

Whether or not to repeat stepping the received telegram.

Disable: received stepping telegram not repeated.

Enable: received stepping telegram repeated.

When enable is selected, the following parameters are available.

Stepping telegram repeated enabled	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
-Stepping telegram repeated time	0.2s
-Stepping telegram repeated number (1..255,0-unlimited)	0

- Stepping telegram repeat time

Options: **0.2 s-60 s**

Sets the time for the stepping telegram repeat.

- Stepping telegram repeat number (1-255, 0 - unlimited) Options: 0-255

- **Moving stopped telegram enabled (Adjust telegram used for stop)**

Options: **Disable**

Enable

Moving stopped telegram enabled(Adjust telegram used for stop)	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
-Moving stopped telegram delay time:base	1sec
-Factor[1..255]->time=base*factor	10



- Moving stopped telegram enabled (Adjust telegram used for stop)

Options: **100 ms, 1 sec, 1 min, 1 hour**

- Factor (1-255)->time=base*factor

- **Transmit object value following bus voltage recovery**

Options: **NO**

YES

Whether or not to transmit the object value following bus voltage recovery. NO: do not transmit the object value following bus voltage recovery. YES: transmit the object value following bus voltage recovery.

- **Operation time interval: base**

Options: **10 ms**

100 ms

1 sec

1 min

1 hour

- **Factor (1-255) ->time=base*factor**

Options: **1-255**

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.



- **Electronic switch**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Shutter controller
Channel C	Dry contact type	<input type="radio"/> Mechanical switch <input checked="" type="radio"/> Electronic switch
Channel D	The normally contact status is	<input type="radio"/> Closed <input checked="" type="radio"/> Open
LED output A	Reaction when short button operation	Invalid
	Reaction when long button operation	Invalid
	Long button time after	1s
	Delay for Stepping of shutter(0..255s)	0
	Delay for Moving of shutter(0..255s)	0
	Stepping telegram repeated enabled	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
	Moving stopped telegram enabled(Adjust telegram used for stop)	<input checked="" type="radio"/> Disable <input type="radio"/> Enable

Fig 9.2: "Electronic switch" parameter window

- **Normal contact status is**

Options: **Close**
Open

Sets the dry contact status when not operating.

Close: the contact status is closed.

Open: the contact status is open.

- **Reaction to short button operation**

Sets the function of short operation of the dry contact.

Options: **Invalid**
Stepping->Increase/STOP
Stepping->Decrease/STOP
Stepping->Toggle/STOP
Moving->UP
Moving->DOWN
Moving->Toggle

Invalid: if short operation is used, the dry contact is invalid.

Stepping->Increase/Stop: if short operation of the dry contact is used the function is "increase/stops".



Stepping->Decrease/Stop: if short operation of the dry contact is used the function decreases/stops.

Stepping->Toggle/Stop: the function is “toggle/stop” if short operation of the dry contact is used.

Moving->UP: moves up if short operation of the dry contact is used.

Moving->Down: moves down if short operation of the dry contact is used.

Moving->Toggle: the function toggles if short operation of the dry contact is used.

- **Reaction to long button operation**

Sets the function of long operation of the dry contact.

Options: **Invalid**
 Stepping->Increase/STOP
 Stepping->Decrease/STOP
 Stepping->Toggle/STOP
 Moving->UP
 Moving->DOWN
 Moving->Toggle
 Press: Moving->UP, Release: Call short button
 Press: Moving->DOWN, Release: Call short button
 Press: Moving->Toggle, Release: Call short button

Invalid: if long operation is used, the dry contact is invalid.

Stepping->Increase/Stop: the function is “increase/stop” if long operation of the dry contact is used.

Stepping->Decrease/Stop: if long operation of the dry contact is used the function is “decrease/stop”.

Stepping->Toggle/Stop: if long operation of the dry contact is used the function is “toggle/stop”.

Moving->UP: moves up if long operation of the dry contact is used.

Moving->Down: moves down if long operation of the dry contact is used.

Moving->Toggle: the function is “toggle” if long operation of the dry contact is used. **Press: Moving->UP, Release: Call short button:** Press the dry contact to move up, release the dry contact to send the value of the short button.

Press: Moving->DOWN, Release: Call short button: Press the dry contact to move down, release the dry contact to send the value of the short button.

Press: Moving->Toggle, Release: Call short button: Press the dry contact to toggle, release the dry contact to send the value of the short button.

- **Length of long button press**

Options: **0.2 s-60 s**

Sets the time to be defined as a long button press. The range is 0.2 s to 60 s.



- **Shutter stepping delay (0-255 s)**
- **Shutter movement delay (0-255 s)**

Options: **0-255 s**

Sets the delay time for shutter stepping/movement.

The range is 0-255 s.

- **Object value inverted when receiving from bus**

Options: **NO**

YES

NO: when receiving the value from the bus it is not inverted.

YES: when receiving the value from the bus it is inverted.

- **Operation time interval: base**

Options: **10 ms, 100 ms, 1 sec, 1 min, 1 hour**

Factor (1-255)->time=base*factor

- **Delay when switch ON (0-255 s)**
- **Delay when switch OFF (0-255 s)**

Options: **0-255s**

Sets the delay time for switch ON and OFF.

The range is 0-255 s.

- **Stepping telegram repeated enabled**

Options: **Disable**

Enable

Enables the stepping telegram repeat.

Disable: stepping telegram not repeated.

Enable: stepping telegram repeated.

Stepping telegram repeated enabled ☐ Disable ☒ Enable

-Stepping telegram repeated time 0.2s

-Stepping telegram repeated number 0 (1..255,0-unlimited)

- **Stepping telegram repeat time**

Options: **0.2 s-60 s**

Sets the time for the stepping telegram repeat.



- Stepping telegram repeat number (1-255, 0 - unlimited)

Options: **0-255**

- **Moving stopped telegram enabled (Adjust telegram used for stop)**

Options: **Disable**

Enable

Moving stopped telegram enabled(Adjust telegram used for stop) ☐ Disable ☒ Enable

-Moving stopped telegram delay time:base 1sec

-Factor[1..255]->time=base*factor 10

- Moving stopped telegram enabled (Adjust telegram used for stop)

Options: **100 ms, 1 sec, 1 min, 1 hour**

- Factor (1-255)->time=base*factor

- **Operation time interval: base**

Options: **10 ms, 100 ms, 1 sec, 1 min, 1 hour**

Factor (1-255)->time=base*factor

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.



- **Select "Flexible controller"**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Scene controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	Call scene number when closing the contact	Scene NO.01
LED output A	Call scene number when opening the contact	Scene NO.02
	Delay for call the scene when closed(0..255s)	0
	Delay for call the scene when Opened (0..255s)	0
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval:base	10ms
	-Factor[1..255]-> time=base*factor	1

Fig 10: "Flexible controller" parameter window

With input A as a dry contact, and function "flexible controller".

- **Dry contact type**

Options: **Mechanical switch**
 Electronic switch

There are two types of dry contact; the settings are detailed as follows.



- **Mechanical switch**

1.1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Scene controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	Call scene number when closing the contact	Scene NO.01
LED output A	Call scene number when opening the contact	Scene NO.02
	Delay for call the scene when closed(0..255s)	0
	Delay for call the scene when Opened (0..255s)	0
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval:base	10ms
	-Factor[1..255]-> time=base*factor	1

Fig 10.1: "Mechanical switch" parameter window

- **Flexible button operation:**

Sets the function when the dry contact is operated.

Options:

- Invalid Close="toggle"**
- Open="toggle"**
- Close="ON"**
- Open="ON"**
- Close="ON", Open="ON"**
- Close="OFF"**
- Open="OFF"**
- Close="OFF", Open="OFF"**
- Close="ON", Open="OFF"**
- Close="OFF", Open="ON"**

Invalid: the dry contact is invalid.

Toggle: the dry contact function toggles.

Press="ON": Press the dry contact, the function is ON.

Press="ON", Release="ON": Press/release the dry contact, the function is on.

Press="OFF": Press the dry contact, the function is OFF.

Release="OFF": Release the dry contact, the function is off.

Press="OFF", Release="OFF": Press/release the dry contact, the function is off.



Press="ON", Release="OFF": Press the dry contact, the function is ON, release the dry contact, the function is off.

Press="OFF", Release="ON": Press/release the dry contact, the function is off.

- **Transmit object value following bus voltage recovery**

Options: **NO**
 YES

Whether or not to transmit the object value following bus voltage recovery.

NO: do not transmit the object value following bus voltage recovery.

YES: transmit the object value following bus voltage recovery.

- **Operation time interval: base**

Options: **10 ms**
 100 ms
 1 sec
 1 min
 1 hour

- **Factor (1-255) ->time=base*factor**

Options: **1-255**

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.



- **Electronic switch**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Scene controller
Channel C	Dry contact type	<input type="radio"/> Mechanical switch <input checked="" type="radio"/> Electronic switch
Channel D	The normally contact status is	<input type="radio"/> Closed <input checked="" type="radio"/> Open
LED output A	Call scene when short button operation	Scene NO.01
	Reaction when long button operation	Scene dimming
	-Scene dimming	Dim->Brighter
	Long button time after	1s
	Short button operation toggled	<input checked="" type="radio"/> No <input type="radio"/> Yes
	Delay for Call the scene(0..255s)	0
	The operation time interval:base	10ms
	-Factor[1..255]->time=base*factor	1

Fig 10.2: "Electronic switch" parameter window

- **Normal contact status is**

Options: **Close**
 Open

Sets the dry contact status when not operating.

Close: the contact status is closed.

Open: the contact status is open.

- **Flexible button operation**

Sets the function of short operation of the dry contact.

Options: **Invalid Press="toggle"**
 Release="toggle"
 Press="ON"
 Release="ON"
 Press ="ON", Release="ON"
 Press="OFF"
 Release="OFF"
 Press="OFF", Release="OFF"
 Press="ON", Release="OFF"

**Press="OFF", Release="ON"**

Invalid: the dry contact is invalid.

Press=Toggle: press, the dry contact function toggles.

Release="toggle": release, the dry contact function toggles.

Press="ON": Press the dry contact, the function is ON.

Press="ON", Release="ON": Press/release the dry contact, the function is on.

Press="OFF": Press the dry contact, the function is OFF.

Release="OFF": Release the dry contact, the function is off.

Press="OFF", Release="OFF": Press/release the dry contact, the function is off.

Press="ON", Release="OFF": Press the dry contact, the function is ON, release the dry contact, the function is off.

Press="OFF", Release="ON": Press/release the dry contact, the function is off.

- **Operation time interval: base**

Options: **10 ms**
 100 ms
 1 sec
 1 min
 1 hour

- **Factor (1-255) ->time=base*factor**

Options: **1-255**

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.



- **Select "Scene controller"**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Scene controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	Call scene number when closing the contact	Scene NO.01
LED output A	Call scene number when opening the contact	Scene NO.02
	Delay for call the scene when closed(0..255s)	0
	Delay for call the scene when Opened (0..255s)	0
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval:base	10ms
	-Factor[1..255]-> time=base*factor	1

Fig 11: "Scene controller" parameter window

With input A as a dry contact, and function "scene controller".

- **Dry contact type**

Options: **Mechanical switch**
 Electronic switch

There are two types of dry contact; the settings are detailed as follows.



- **Mechanical switch**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General

Channel A

Channel B

Channel C

Channel D

LED output A

Input A detection: Dry contact sensor

'Enable/Disable' via bus: ☐ Disable ☒ Enable

Function selection ==>: Scene controller

Dry contact type: ☒ Mechanical switch ☐ Electronic switch

Call scene number when closing the contact: Scene NO.01

Call scene number when opening the contact: Scene NO.02

Delay for call the scene when closed(0..255s): 0

Delay for call the scene when Opened (0..255s): 0

Transmit object value after bus voltage recovery: ☒ No ☐ Yes

The operation time interval:base: 10ms

-Factor[1..255]-> time=base*factor: 1

Fig 11.1: "Mechanical switch" parameter window

- **Call scene number for when the contact is closed:**
- **Call scene number for when the contact is opened:**

Options: **Scene No. 01**
Scene No. 02
to
Scene No. 64

Call the scene number for when the dry contact is opened/closed. The range is scene 1 to scene 64.

- **Delay in calling the scene when the contact is closed (0-255 s):**

Options: **0-255 s**

Sets the delay time after the dry contact is closed for the scene to be called. The range is 0-255 s.

- **Delay in calling the scene when the contact is opened (0-255 s):**

Options: **0-255 s**

Sets the delay time after the dry contact is opened for the scene to be called. The range is 0-255 s.



- **Transmit object value following bus voltage recovery**

Options: **NO**
 YES

Whether or not to transmit the object value following bus voltage recovery.

NO: do not transmit the object value following bus voltage recovery.

YES: transmit the object value following bus voltage recovery.

- **Operation time interval: base**

Options: **10 ms**
 100 ms
 1 sec
 1 min
 1 hour

- **Factor (1-255) ->time=base*factor**

Options: **1-255**

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.

- **Electronic switch**

Fig 11.2: "Electronic switch" parameter window



- **Normal contact status is**

Options: **Close**
 Open

Sets the dry contact status when not operating.

Close: the contact status is closed.

Open: the contact status is open.

- **Call scene following short button operation**

Options: **Scene No. 01**
 Scene No. 02
 to
 Scene No. 64

Calls the scene number following short operation of the dry contact. The range is scene 1 to scene 64.

- **Reaction to long button operation**

Sets the dry contact functions during long button operation.

Options: **Scene dimming Scene saving Dimming and saving**

- **Scene dimming**

Options: **Dim->Brighter**
 Dim->Darker
 Dim->Brighter/Darker

Dim->Brighter: long button operation increases light brightness.

Dim->Darker: long button operation decreases light brightness

Dim->Brighter/Darker: long button operation increases/decreases light brightness.

- **Scene saving**

Saves the scene; the scene number is 1-64

- **Dimming and Saving**

Dimming and saving together.

- **Length of long button press**

Options: **0.2 s-60 s**

Sets the time to be defined as a long button press. The range is 0.2 s to 60 s.

- **Toggle with short button operation**

Options: **NO**
 YES



- **Toggle between scenes with short operation**

Options: **Scene No. 01**
 Scene No. 02
 to
 Scene No. 64

- **Delay in calling the scene when the contact is opened (0-255 s):**

Options: **0-255 s**
Sets the delay time after the dry contact is opened for the scene to be called.
The range is 0-255 s.

- **Operation time interval: base**

Options: **10 ms**
 100 ms
 1 sec
 1 min
 1 hour

- **Factor (1-255) ->time=base*factor**

Options: **1-255**
These two parameters set the time interval of repeat dry contact operation; the time is base*factor.



- **Select "Sequence controller"**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Sequence controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	Reaction when closing the contact	Start with "1"
LED output A	Reaction when opening the contact	Stop with "0"
	Delay for call the sequence when closed (0..255s)	0
	Delay for call the sequence when opened (0..255s)	0
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval:base	10ms
	-Factor[1..255]->time=base*factor	1

Fig 12: "Sequence controller" parameter window

With input A as a dry contact, and function "sequence controller".

- **Dry contact type**

Options: **Mechanical switch**
 Electronic switch

There are two types of dry contact; the settings are detailed as follows.



- **Mechanical switch**

1.1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Sequence controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	Reaction when closing the contact	Start with "1"
LED output A	Reaction when opening the contact	Stop with "0"
	Delay for call the sequence when closed (0..255s)	0
	Delay for call the sequence when opened (0..255s)	0
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval:base	10ms
	-Factor[1..255]->time=base*factor	1

Fig 12.1: "Mechanical switch" parameter window

- **Reaction when the contact is closed**
- **Reaction when the contact is opened**

Sets the function of the dry contact when opening/closing it.

Options: **Invalid**
 Toggle
 "1" to start
 "0" to stop

Invalid: the dry contact is invalid.

Toggle: when opening/closing the dry contact, the function toggles.

"1" to start: starts with telegram value 1.

"0" to stop: stops with telegram value 0.

- **Delay in calling the sequence when the contact is closed (0-255 s):**

Options: **0-255 s**

Sets the delay time after the dry contact is closed for the sequence to be called.
The range is 0-255 s.

- **Delay in calling the sequence when the contact is opened (0-255 s):**

Options: **0-255 s**

Sets the delay time after the dry contact is opened for the sequence to be called.



The range is 0-255 s.

- **Transmit object value following bus voltage recovery**

Options: **NO**
YES

Whether or not to transmit the object value following bus voltage recovery.

NO: do not transmit the object value following bus voltage recovery.

YES: transmit the object value following bus voltage recovery.

- **Operation time interval: base**

Options: **10 ms**
100 ms
1 sec
1 min
1 hour

- **Factor (1-255) ->time=base*factor**

Options: **1-255**

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.

- **Electronic switch**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Sequence controller
Channel C	Dry contact type	<input type="radio"/> Mechanical switch <input checked="" type="radio"/> Electronic switch
Channel D	The normally contact status is	<input type="radio"/> Closed <input checked="" type="radio"/> Open
LED output A	Reaction when short button operation	Toggle
	Reaction when long button operation	Invalid
	Long button time after	1s
	Delay for short operation(0..255s)	0
	Delay for long operation(0..255s)	0
	The operation time interval:base	10ms
	-Factor[1..255]->time=base*factor	1

Fig 12.2: "Electronic switch" parameter window



- **Normal contact status is**

Options: **Close**
 Open

Sets the dry contact status when not operating.

Close: the contact status is closed.

Open: the contact status is open.

- **Reaction to short button operation**

- **Reaction to long button operation**

Sets the function of the dry contact for short/long button operation.

Options: **Invalid**
 Toggle
 "1" to start
 "0" to stop

Invalid: the dry contact is invalid.

Toggle: the function toggles if long/short operation of the dry contact is used.

"1" to start: starts with telegram value 1.

"0" to stop: stops with telegram value 0.

- **Length of long button press**

Options: **0.2 s-60 s**

Sets the time to be defined as a long button press. The range is 0.2 s to 60 s.

- **Delay following short push (0-255 s):**

- **Delay following long push (0-255 s): Options: 0-255 s**

Sets the delay time after operating the dry contact. The range is 0-255 s.

- **Operation time interval: base**

Options: **10 ms**
 100 ms
 1 sec
 1 min
 1 hour

- **Factor (1-255) ->time=base*factor**

Options: 1-255

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.



- **Select "percentage controller"**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Percentage controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	Percentage control when closing the contact	100%(255)
LED output A	Percentage control when opening the contact	0%(0)
	Delay for percentage control when Closed (0..255s)	0
	Delay for percentage control when Opened (0..255s)	0
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval:base	10ms
	-Factor[1..255]->time=base*factor	1

Fig 13: "Percentage controller" parameter window

With input A as a dry contact, and the function "percentage controller".

- **Dry contact type**

Options: Mechanical switch
 Electronic switch

There are two types of dry contact; the settings are detailed as follows.



- **Mechanical switch**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Percentage controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	Percentage control when closing the contact	100%(255)
LED output A	Percentage control when opening the contact	0%(0)
	Delay for percentage control when Closed (0..255s)	0
	Delay for percentage control when Opened (0..255s)	0
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval:base	10ms
	-Factor[1..255]->time=base*factor	1

Fig 13.1: "Mechanical switch" parameter window

- **Percentage control when the contact is closed**
- **Percentage control when the contact is opened**

Sets the light level when the dry contact is opened/closed.

Options: **invalid**
0% (0) - 100% (255)

Invalid: the dry contact is invalid.

0% (0) - 100% (255): light brightness.

- **Delay for percentage control when the contact is closed (0-255 s):**

Options: **0-255 s**

Sets the delay time the dry contact was closed. The range is 0-255 s.

- **Delay in calling the sequence when the contact is opened (0-255 s):**

Options: **0-255 s**

Sets the delay time after opening the dry contact. The range is 0-255 s.

Transmit object value following bus voltage recovery

Options: **NO**
YES



Whether or not to transmit the object value following bus voltage recovery.

NO: do not transmit the object value following bus voltage recovery.

YES: transmit the object value following bus voltage recovery.

- **Operation time interval: base**

Options: **10 ms**
 100 ms
 1 sec
 1 min
 1 hour

- **Factor (1-255) ->time=base*factor**

Options: **1-255**

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.

- **Electronic switch**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Percentage controller
Channel C	Dry contact type	<input type="radio"/> Mechanical switch <input checked="" type="radio"/> Electronic switch
Channel D	The normally contact status is	<input type="radio"/> Closed <input checked="" type="radio"/> Open
LED output A	Reaction when short button operation	100%(255)
	Reaction when long button operation	100%(255)
	Long button time after	1s
	Short button operation toggled	<input checked="" type="radio"/> No <input type="radio"/> Yes
	Long button operation toggled	<input checked="" type="radio"/> No <input type="radio"/> Yes
	Delay for short operation(0..255s)	0
	Delay for long operation(0..255s)	0

Fig 13.2: "Electronic switch" parameter window

- **Normal contact status is**

Options: **Close**
 Open

Sets the dry contact status when not operating.



Close: the contact status is closed.

Open: the contact status is open.

- **Reaction to short button operation**
- **Reaction to long button operation**

Options: **Invalid**
 0% (0) - 100% (255)

Invalid: the dry contact is invalid.

0% (0) - 100% (255): light brightness.

- **Length of long button press**

Options: **0.2 s-60 s**

Sets the time to be defined as a long button press. The range is 0.2 s to 60 s.

- **Toggle with short button operation:**

Options: **NO**
 YES

- **Toggled brightness of the short operation**

Options: **0% (0) - 100% (255)**

- **Toggle with long button operation:**

Options: **NO**
 YES

- **Toggled brightness of the long operation**

Options: **0% (0) - 100% (255)**

- **Delay following short push (0-255 s):**

- **Delay following long push (0-255 s):**

Options: **0-255 s**

Sets the delay time after operating the dry contact. The range is 0-255 s.

- **Operation time interval: base**

Options: **10 ms, 100 ms, 1 sec, 1 min, 1 hour**

- **Factor (1-255) ->time=base*factor**

Options: **1-255**

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.



- **Select "Threshold controller"**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Threshold controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	Threshold control type when closing the contact	2bytes threshold
LED output A	-Threshold value(0..65535)	1000
	Threshold control type when opening the contact	2bytes threshold
	-Threshold value(0..65535)	2000
	Delay for threshold control when Closed (0..255s)	0
	Delay for threshold control when Opened (0..255s)	0
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval:base	10ms

Fig 14: "Threshold controller" parameter window

With input A as a dry contact, and the function "threshold controller".

- **Dry contact type**

Options: **Mechanical switch**
 Electronic switch

There are two types of dry contact; the settings are detailed as follows.



- **Mechanical switch**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Threshold controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	Threshold control type when closing the contact	2bytes threshold
LED output A	-Threshold value(0..65535)	1000
	Threshold control type when opening the contact	2bytes threshold
	-Threshold value(0..65535)	2000
	Delay for threshold control when Closed (0..255s)	0
	Delay for threshold control when Opened (0..255s)	0
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval:base	10ms

Fig 14.1: "Mechanical switch" parameter window

- **Threshold control type when the contact is closed**
- **Threshold control type when the contact is opened**

Sets the threshold control type when the dry contact is opened/closed.

Options: **Invalid**
 1 byte threshold
 2 bytes threshold

Invalid: the dry contact is invalid.

1 byte threshold: the threshold type is 1 byte. The threshold is 0-255.

2 byte threshold: the threshold type is 2 bytes. The threshold is 0-65535.

- **Delay for threshold control when the contact is closed (0-255 s):**

Options: **0-255 s**
Sets the delay time after closing the dry contact. The range is 0-255 s.

- **Delay for threshold control when the contact is opened (0-255 s):**

Options: **0-255 s**
Sets the delay time after opening the dry contact. The range is 0-255 s.



- **Transmit object value following bus voltage recovery**

Options: **NO**
YES

Whether or not to transmit the object value following bus voltage recovery.

NO: do not transmit the object value following bus voltage recovery.

YES: transmit the object value following bus voltage recovery.

- **Operation time interval: base**

Options: **10 ms**
100 ms
1 sec
1 min
1 hour

- **Factor (1-255) ->time=base*factor**

Options: **1-255**

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.

- **Electronic switch**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Threshold controller
Channel C	Dry contact type	<input type="radio"/> Mechanical switch <input checked="" type="radio"/> Electronic switch
Channel D	The normally contact status is	<input type="radio"/> Closed <input checked="" type="radio"/> Open
LED output A	Reaction when short button operation	1byte threshold
	-Threshold value(0..255)	0
	Reaction when long button operation	1byte threshold
	-Threshold value(0..255)	0
	Long button time after	1s
	Short button operation toggled	<input checked="" type="radio"/> No <input type="radio"/> Yes
	Long button operation toggled	<input checked="" type="radio"/> No <input type="radio"/> Yes

Fig 14.2: "Electronic switch" parameter window

- **Normal contact status is**

Options: **Close**



Open

Sets the dry contact status when not operating.

Close: the contact status is closed.

Open: the contact status is open.

- **Reaction to short button operation**
- **Reaction to long button operation**

Sets the function of short operation of the dry contact.

Options: **invalid**
 1 byte threshold
 2 byte threshold

Invalid: the dry contact is invalid.

1 byte threshold: the threshold type is 1 byte. The threshold is 0-255.

2 byte threshold: the threshold type is 2 bytes. The threshold is 0-65535.

- **Length of long button press**

Options: **0.2 s-60 s**

Sets the time to be defined as a long button press. The range is 0.2 s to 60 s.

- **Toggle with short button operation:**

Options: **NO**
 YES

- **Toggle threshold (0-65535) of the short operation**

Options: **0-65535**

- **Toggle with long button operation:**

Options: **NO**
 YES

- **Toggle threshold (0-255) of the long operation**

Options: **0-255**

- **Delay following short push (0-255 s):**
- **Delay following long push (0-255 s):**

Options: **0-255 s**

Sets the delay time after operating the dry contact. The range is 0-255 s.

- **Operation time interval: base**

Options: **10 ms**
 100 ms



1 sec

1 min

1 hour

- **Factor (1-255) ->time=base*factor**

Options: 1-255

These two parameters set the time interval for repeating dry contact operation, the time is base*factor.

- **Select "String (14 bytes) controller"**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	String(14bytes) controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	String(max 14bytes) send when closing the contact	Hello world!
LED output A	String(max 14bytes) send when opening the contact	Hello world!
	Delay for send when Closed(0..255s)	0
	Delay for send when Opened (0..255s)	0
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval:base	10ms
	-Factor[1..255]->time=base*factor	1

Fig 15: "String (14 bytes) controller" parameter window

With input A as a dry contact, and the function is "string (14 bytes) controller".

- **Dry contact type**

Options: Mechanical switch

Electronic switch

There are two types of dry contact; the settings are detailed as follows.



- **Mechanical switch**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	String(14bytes) controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	String(max 14bytes) sent when closing the contact	Hello world!
LED output A	String(max 14bytes) sent when opening the contact	Hello world!
	Delay for send when Closed(0..255s)	0
	Delay for send when Opened (0..255s)	0
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval:base	10ms
	-Factor[1..255]->time=base*factor	1

Fig 15.1: "Mechanical switch" parameter window

- **String (max. 14 bytes) sent when the contact is closed**
- **String (max. 14 bytes) sent when the contact is opened**

Sets the string sent when the dry contact is opened or closed. The string max. length is 14 bytes

- **Delay before sending when dry contact is closed (0-255 s):**
- **Delay before sending when dry contact is opened (0-255 s):**

Options: **0-255 s**

Sets the delay time after the dry contact is opened/closed. The range is 0-255 s.

- **Transmit object value following bus voltage recovery**

Options: **NO**
YES

Whether or not to transmit the object value following bus voltage recovery.

NO: do not transmit the object value following bus voltage recovery.

YES: transmit the object value following bus voltage recovery.

- **Operation time interval: base**

Options: **10 ms, 100 ms, 1 sec, 1 min, 1 hour**



- **Factor (1-255) ->time=base*factor**

Options: **1-255**

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.

- **Electronic switch**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	String(14bytes) controller
Channel C	Dry contact type	<input type="radio"/> Mechanical switch <input checked="" type="radio"/> Electronic switch
Channel D	The normally contact status is	<input type="radio"/> Closed <input checked="" type="radio"/> Open
LED output A	String(max 14bytes) send when short button operation	Hello world!
	String(max 14bytes) send when long button operation	Hello world!
	Long button time after	1s
	Delay for short operation(0..255s)	0
	Delay for long operation(0..255s)	0
	The operation time interval:base	10ms
	-Factor[1..255]->time=base*factor	1

Fig 15.2: "Electronic switch" parameter window

- **Normal contact status is**

Options: **Close**

Open

Sets the dry contact status when not operating.

Close: the contact status is closed.

Open: the contact status is open.

- **String (max. 14 bytes) sent following long button operation**

Sets the string sent following short/long operation of the dry contact. The string max. length is 14 bytes

- **Length of long button press**

Options: **0.2 s-60 s**

Sets the time to be defined as a long button press. The range is 0.2 s to 60 s.



- **Delay following short push (0-255 s):**
- **Delay following long push (0-255 s): Options: 0-255 s**

Sets the delay time after operating the dry contact. The range is 0-255 s.

- **Operation time interval: base**

Options: **10 ms**
 100 ms
 1 sec
 1 min
 1 hour

- **Factor (1-255) ->time=base*factor**

Options: **1-255**

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.

- **Select "Forced position controller"**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Forced position controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	Value sent when closing the contact	2bits value
LED output A	-Transmitted value(ON/OFF)	ON->control
	Value sent when opening the contact	2bits value
	-Transmitted value(ON/OFF)	OFF->control
	Delay for send when Closed(0..255s)	0
	Delay for send when Opened (0..255s)	0
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval:base	10ms
	-Factor[1..255]->time=base*factor	1

Fig 16: "Forced position controller" parameter window

With input A as a dry contact, and the function "position controller".



- **Dry contact type**

Options: **Mechanical switch**

Electronic switch

There are two types of dry contact; the settings are detailed as follows.

- **Mechanical switch**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Forced position controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	Value sended when closing the contact	2bits value
LED output A	-Transmitted value(ON/OFF)	ON->control
	Value sended when opening the contact	2bits value
	-Transmitted value(ON/OFF)	OFF->control
	Delay for send when Closed(0..255s)	0
	Delay for send when Opened (0..255s)	0
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval:base	10ms
	-Factor[1..255]->time=base*factor	1

Fig 16.1: "Mechanical switch" parameter window

- **Value sent when the contact is closed**

- **Value sent when the contact is opened**

Sets the value sent when the dry contact is opened/closed.

Options: **Invalid**

2 bit value

1 byte value (0-255)

2 byte value (-32768-32767)

2 byte value (0-65535)

2 byte value (float)

4 byte value (0-2147483647)

Invalid: the dry contact is invalid.

2 bit value: 2 bit value sent when the dry contact is opened/closed.



Value sended when opening the contact	2bits value
-Transmitted value(ON/OFF)	OFF->control

- Transmitted value (ON/OFF)

Options: **ON->control**
 OFF->control
 NO control

2 byte value (-32768-32767): -32768-32767 sent when the dry contact is opened/closed.

2 byte value (0-65535): 2 byte value (0-65535) sent when the dry contact is opened/closed.

2 byte value (float): -100-100 value sent when the dry contact is opened/closed.

4 byte value (0-2147483647): 0-2147483647 sent when the dry contact is opened/closed.

- **Delay before sending when dry contact is closed (0-255 s):**
- **Delay before sending when dry contact is opened (0-255 s):**

Options: **0-255 s**

Sets the delay time after the dry contact is opened/closed. The range is 0-255 s.

- **Transmit object value following bus voltage recovery**

Options: **NO**
 YES

Whether or not to transmit the object value following bus voltage recovery.

NO: do not transmit the object value following bus voltage recovery.

YES: transmit the object value following bus voltage recovery.

- **Operation time interval: base**

Options: **10 ms**
 100 ms
 1 sec
 1 min
 1 hour

- **Factor (1-255) ->time=base*factor**

Options: **1-255**

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.



- **Electronic switch**

1.1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Forced position controller
Channel C	Dry contact type	<input type="radio"/> Mechanical switch <input checked="" type="radio"/> Electronic switch
Channel D	The normally contact status is	<input type="radio"/> Closed <input checked="" type="radio"/> Open
LED output A	Value when short button operation	2bits value
	-Transmitted value(ON/OFF)	ON-> control
	Value when long button operation	2bits value
	-Transmitted value(ON/OFF)	OFF-> control
	Long button time after	1s
	Delay for short operation(0..255s)	0
	Delay for long operation(0..255s)	0
	The operation time interval:base	10ms
	-Factor[1..255]->time=base*factor	1

Fig 16.2: "Electronic switch" parameter window

- **Normal contact status is**

Options: **Close**
Open

Sets the dry contact status when not operating.

Close: the contact status is closed.

Open: the contact status is open.

- **Value for short button operation**

- **Value for long button operation**

Sets the value sent for short/long operation of the dry contact.

Options: **Invalid**
2 bit value
1 byte value (0-255)
2 byte value (-32768-32767)
2 byte value (0-65535)



2 byte value (float)
4 byte value (0-2147483647)

Invalid: the dry contact is invalid.

2 bit value: 2 bit value sent when the dry contact is opened/closed.

- Transmitted value (ON/OFF)

Options: **ON->control**
 OFF->control
 NO control

2 byte value (-32768-32767): -32768-32767 sent when the dry contact is opened/closed.

2 byte value (0-65535): 2 byte value (0-65535) sent when the dry contact is opened/closed.

2 byte value (float): -100-100 value sent when the dry contact is opened/closed.

4 byte value (0-2147483647): 0-2147483647 sent when the dry contact is opened/closed.

- **Length of long button press**

Options: **0.2 s-60 s**

Sets the time to be defined as a long button press. The range is 0.2 s to 60 s.

- **Delay following short push (0-255 s):**
- **Delay following long push (0-255 s):**

Options: **0-255 s**

Sets the delay after operating the dry contact. The range is 0-255 s.

- **Operation time interval: base**

Options: **10 ms**
 100 ms
 1 sec
 1 min
 1 hour

- **Factor (1-255) ->time=base*factor**

Options: **1-255**

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.



- **Select "Counter controller"**

1.1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Counter controller
Channel C	Pulse detection	Opening contact(rising edge)
Channel D	Divider set:number of pulse for one counter step(1..65535)	1
LED output A	Data width of counter	1byte(0..255)
	-Counter end at(0..255)	255
	-Enable set counter end via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
	-Enable set counter value(<=end) via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
	Transmit counter to bus	Transmit every counter
	Overflow set	Reset
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes

Fig 17: "Counter controller" parameter window

With input A as a dry contact, and the function "counter controller".

- **Pulse detection**

Options: **Close contact (falling edge)**
 Open contact (rising edge)
 Closing (falling edge) and Opening (rising edge)

Close contact (falling edge): when the falling edge is counted.

Open contact (rising edge): when the rising edge is counted.

Closing (falling edge) and Opening (rising edge): falling edge and rising edge are both counted.

- **Divider set: number of pulses for one counter step (1-65535)**

Options: **1-65535**

Sets the number of pulses counted; the range is 1-65535.

- **Data width of counter**

Options: **1 byte (0-255)**
 2 bytes (0-65535)
 4 bytes (0-2147483647)

Sets the width of the counter.



1 byte (0-255): the width of the counter is 0-255.

2 bytes (0-65535): the width of counter is 0-65535.

4 bytes (0-2147483647): the width of the counter is 0-2147483647.

When the data width of the counter is 1 byte:

Data width of counter	1byte(0..255) ▼
-Counter end at(0..255)	255 ▲▼
-Enable set counter end via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
-Enable set counter value(<=end) via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable

- Counter end (0-255)

Sets the length of a count down. The counter end is 0-255.

2 bytes counter end is 0-65535.

4 bytes counter end is 0-2147483647.

- Enable setting the counter end via the bus

Whether or not the counter end can be set via the bus.

Options: **Enable**
 Disable

Enable: enables setting the counter end via the bus.

Disable: disables setting the counter end via the bus.

- Enable setting the counter value (\leq end) via the bus Whether or not the counter start can be set via the bus.

Options: **Enable**
 Disable

Enable: enables setting the counter start via the bus.

Disable: disables setting the counter start via the bus.

- **Transmit counter to bus**

Options: **Do not transmit**
 Transmit every counter
 Transmit counter cyclically

Do not transmit: no counter is transmitted.

Transmit every counter: every counter is transmitted.

Transmit counter cyclically:



Transmit counter to bus	Transmit counter cyclically
-Counter value transmitted time:base	1sec
-Factor[1..255]->time=base*factor	1
-Counter Transmitted number(1..255,0-unlimited)	0

- Counter value transmission time: base
- Factor(1-255)->time=base*factor

These two parameters set the counter time value transmitted. The time is base*factor.

- Counter Transmitted number (1-255, 0 - unlimited)

- **Set overflow:**
 - Reset**
 - Reset and Alarm**
 - Stop**
 - Stop and Alarm**

Reset: setting the overflow will reset the counter.

Reset and Alarm: setting the overflow will reset the counter and alarm.

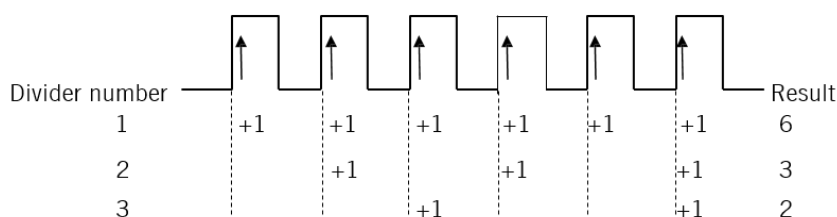
Stop: setting the overflow will stop the counter.

Stop and Alarm: setting the overflow will stop and alarm.

- **Transmit object value following bus voltage recovery**
- Operation time interval: **Base**
 - Options: 10 ms**
 - 100 ms**
 - 1 sec**
 - 1 min**
 - 1 hour**
- **Factor (1-255) ->time=base*factor**

Options: **1-255**

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.





- **Select "Combination controller"**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Combination controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	Delay for send when Closed(0..255s)	0
LED output A	Delay for send when Opened (0..255s)	0
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval:base	100ms
	-Factor[1..255]->time=base*factor	1
	Reaction when closing the contact	On closing->
	Object type 1 (closing operation)	Invalid
	Object type 2 (closing operation)	Invalid

Fig 18: "Combination controller" parameter window

With input A as a dry contact, and the function is "combination controller".

- **Dry contact type**

Options: **Mechanical switch**
 Electronic switch

There are two types of dry contact; the settings are detailed as follows.



- **Mechanical switch**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Combination controller
Channel C	Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Channel D	Delay for send when Closed(0..255s)	0
LED output A	Delay for send when Opened (0..255s)	0
	Transmit object value after bus voltage recovery	<input checked="" type="radio"/> No <input type="radio"/> Yes
	The operation time interval:base	100ms
	-Factor[1..255]->time=base*factor	1
	Reaction when closing the contact	On closing->
	Object type 1 (closing operation)	Invalid
	Object type 2 (closing operation)	Invalid

Fig 18.1: "Mechanical switch" parameter window

- **Delay before sending when dry contact is closed (0-255 s):**
- **Delay before sending when dry contact is opened (0-255 s):**

Options: **0-255 s**

Sets the delay time after the dry contact is opened/closed. The range is 0-255 s.

- **Transmit object value following bus voltage recovery**

Options: **NO**
YES

Whether or not to transmit the object value following bus voltage recovery.

NO: do not transmit the object value following bus voltage recovery.

YES: transmit the object value following bus voltage recovery.

- **Operation time interval: base**

Options: **10 ms**
100 ms
1 sec
1 min
1 hour



- **Factor (1-255) ->time=base*factor**

Options: **1-255**

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.

- **Reaction when the contact is closed: ON closing**

- Object type 1 (closing operation)
- Object type 1 (closing operation)
to
- Object type 10 (closing operation)

Options:

Invalid

Switch controller

Shutter controller

Scene controller

Sequence controller

Percentage controller

Threshold controller

14 byte value controller (string)

In this mode, closing the dry contact can control several objects. If some of these items are set, and when the dry contact is closed, several control telegrams can be sent simultaneously.



- **Electronic switch**

1.1.1 CU-DIN DRY 4-Z KNX > Channel A

General	Input A detection	Dry contact sensor
Channel A	'Enable/Disable' via bus	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Function selection ==>	Combination controller
Channel C	Dry contact type	<input type="radio"/> Mechanical switch <input checked="" type="radio"/> Electronic switch
Channel D	The normally contact status is	<input type="radio"/> Closed <input checked="" type="radio"/> Open
LED output A	Long button time after	1s
	Delay for short operation(0..255s)	0
	Delay for long operation(0..255s)	0
	The operation time interval:base	100ms
	-Factor[1..255]->time=base*factor	1
	Reaction when short button operation	On short->
	Object type 1 (short operation)	Invalid

Fig 18.2: "Electronic switch" parameter window

- **Normal contact status is**

Options: **Close**
Open

Sets the dry contact status when not operating.

Close: the contact status is closed.

Open: the contact status is open.

- **Length of long button press**

Options: **0.2 s-60 s**

Sets the time to be defined as a long button press. The range is 0.2 s to 60 s.

- **Delay following short push (0-255 s):**

- **Delay following long push (0-255 s):**

Options: **0-255 s**

Sets the delay after operating the dry contact. The range is 0-255 s.

- **Operation time interval: base**

Options: **10 ms**



100 ms

1 sec

1 min

1 hour

- **Factor (1-255) ->time=base*factor**

Options: **1-255**

These two parameters set the time interval for repeating dry contact operation, the time is base*factor.

Reaction to short button operation: ON short

- Object type 1 (short operation)
- Object type 1 (short operation)
to
- Object type 10 (short operation)

Options:

Invalid

Switch controller

Shutter controller

Scene controller

Sequence controller

Percentage controller

Threshold controller

14 byte value controller (string)

In this mode, short button operation of the dry contact can control several objects. If some of these items are set, and during short button operation of the dry contact, several control telegrams can be sent simultaneously.



5.2.2 "Logic controller" work mode

1.1.1 CU-DIN DRY 4-Z KNX > General		
General	Work mode	Logical controller
Logic function A	System delay(2..255s) after bus voltage recovery	2
Block A	Heartbeat telegram(1..65535s,0-invalid)	0
Logic function B	-> Temperature Quiver: <(threshold - n) or >(threshold + n) on out range	1C
Logic function C	Logic A: LED output	<input checked="" type="radio"/> No <input type="radio"/> Yes
Logic function D	Logic B: LED output	<input checked="" type="radio"/> No <input type="radio"/> Yes
Logic function E	Logic C: LED output	<input checked="" type="radio"/> No <input type="radio"/> Yes
	Logic D: LED output	<input checked="" type="radio"/> No <input type="radio"/> Yes

Fig 19: "Logic controller" parameter window

- **System delay (2-255s) following bus voltage recovery**

The device experiences a delay for 2-255 s after powering on. The default value is 2 seconds. The min. value is 2 seconds and the max. value is 255 seconds.

Options: **2-255 s**

- **Heartbeat telegram (1-65535s, 0 - invalid)**

The range of the parameter is 0 to 65535 s. 0 as the parameter value disables the function, other parameter values enable this function.

Options: **0-65,535 s**

When the parameter is set to non-zero, the device will send telegram data cyclically on timeout. It alternates between sending the values 0 and 1. The user decides whether or not to use this function.

- **Temperature Quiver: < (threshold – n) or > (threshold +n) on out range**

If the temperature changes within the effective range, the status does not change.

When the temperature changes are greater than **n**, the status will change. The quiver range is between threshold – n and threshold, or between threshold and threshold +n.

Options: **0-10°C**



- **Channel A: LED output (0-2V)**

LED output setting.

Options: **NO**
YES

NO: output A is invalid.

YES: status of output A is shown. The settings are as follows.

5.2.2.1 Logic A LED output

1.1.1 CU-DIN DRY 4-Z KNX > General		
General	Work mode	Logical controller
Logic function A	System delay(2..255s) after bus voltage recovery	2
Block A	Heartbeat telegram(1..65535s;0-invalid)	0
Logic function B	-> Temperature Quiver: <(threshold - n) or >(threshold + n) on out range	1C
Logic function C	Logic A: LED output	<input type="radio"/> No <input checked="" type="radio"/> Yes
Logic function D	Logic B: LED output	<input type="radio"/> No <input checked="" type="radio"/> Yes
Logic function E	Logic C: LED output	<input type="radio"/> No <input checked="" type="radio"/> Yes
Logic A Led output	Logic D: LED output	<input type="radio"/> No <input checked="" type="radio"/> Yes
Logic B Led output		
Logic C Led output		
Logic D Led output		



- The settings of outputs A, B, C and D are the same.

1.1.1 CU-DIN DRY 4-Z KNX > Logic A Led output		
General	Output A function	LED status indication
Logic function A	LED functionality	<input checked="" type="radio"/> Switch status ON/OFF <input type="radio"/> Flashing
Block A	Maximum drive voltage of LED(100%)	2V
Logic function B	Default ON brightness of LED	100%(255)
Logic function C	LED control mode	<input checked="" type="radio"/> Local status <input type="radio"/> Via bus(1bit-Operation and 1byte-Brightness)
Logic function D	Change ON brightness via bus	<input checked="" type="radio"/> No <input type="radio"/> Yes
Logic function E		
Logic A Led output		
Logic B Led output	-LED status response(1bit)	Invalid
Logic C Led output	-LED status response(1byte)	Invalid
Logic D Led output	LED indication	ON if value is 'True' / '>=1',else OFF
	LED automatically darker after a delay(Valid only LED status is ON)	<input checked="" type="radio"/> No <input type="radio"/> Yes
	LED status after bus voltage recovery	Unchanged

Fig 20: "Logic A LED output" parameter window

Output A function: LED status indication

- **LED functionality**

Sets the function depending on output A's status. There are two functions:
switch status
ON/OFF and flashing.

Options: Switch status ON/OFF
 Flashing

Switch status ON/OFF: the function is the status of input A.

Flashing: output A is flashing.

The settings are detailed as follows.



- **Switch status ON/OFF:**

1.1.1 CU-DIN DRY 4-Z KNX > Logic A Led output		
General	Output A function	LED status indication
Logic function A	LED functionality	<input checked="" type="radio"/> Switch status ON/OFF <input type="radio"/> Flashing
Block A	Maximum drive voltage of LED(100%)	2V
Logic function B	Default ON brightness of LED	100%(255)
Logic function C	LED control mode	<input checked="" type="radio"/> Local status <input type="radio"/> Via bus(1bit-Operation and 1byte-Brightness)
Logic function D	Change ON brightness via bus	<input checked="" type="radio"/> No <input type="radio"/> Yes
Logic function E		
Logic A Led output		
Logic B Led output	-LED status response(1bit)	Invalid
Logic C Led output	-LED status response(1byte)	Invalid
Logic D Led output	LED indication	ON if value is 'True' / '>=1',else OFF
	LED automatically darker after a delay(Valid only LED status is ON)	<input checked="" type="radio"/> No <input type="radio"/> Yes
	LED status after bus voltage recovery	Unchanged

Fig 21: "Switch state ON/OFF" parameter window

- **Maximum LED drive voltage (100%)**

Sets the LED maximum drive voltage. The range is 1V to 10V.

Options: **1V-10V**

- **Default LED ON brightness**

Sets the default LED brightness. The range is 10% to 100%.

Options: **10% - 100% (255)**

- **LED control mode**

Sets the LED control mode.

Options: **Local status**

Via bus (1 bit - operation and 1 byte - brightness)

Local status: LED controlled by local status.

Via bus: LED controlled by telegram via the bus.

- **Change the brightness via the bus**

Enables changing the brightness via the bus.

Options: **NO**

YES

NO: cannot change the brightness via the bus.



YES: can change the brightness via the bus.

- **LED status (1 bit) response**

Sets the LED status response.

Options: **Invalid**
 1 bit always response
 1 bit only changed

1 bit always response: it always responds.

1 bit only changed: it responds when the status is changed.

- **LED status (1 byte) response**

Options: **Invalid**
 1 byte always response
 1 byte only changed

1 byte always response: it always responds.

1 byte only changed: it responds only when the status is changed.

- **LED indication**

Options: **ON if value ≥ "1", else OFF**
 ON if value is "0", else
 OFF Always ON
 Always OFF

ON if value ≥ "1", else OFF: if value ≥ "1", LED is ON, else LED is OFF.

ON if value is "0", else OFF: if value is 0, LED is ON, else LED is OFF.

Always ON: LED is always ON.

Always OFF: LED is always OFF.

LED indication	ON if value is 'True' / '>=1', else OFF
LED automatically darker after a delay (Valid only LED status is ON)	<input type="radio"/> No <input checked="" type="radio"/> Yes
-LED automatically darker brightness	1%
-LED automatically darker delay time: base	1sec
-Factor[1...255]->time=base*factor	5

- **LED automatically darken delay time: base**

Sets the base delay time.

Options: **100 ms, 1 sec, 1 min 1 hour**



- **Factor(1-255)->time = base*factor**

Options: **1-255**

Sets the delay time; this time is option value*base. After this time, the LED automatically darkens to the set value.

- **LED State following bus voltage recovery**

Options: **Unchanged**

OFF

ON

Sets the LED state following bus voltage recovery.

- **Select "Flashing"**

1.1.1 CU-DIN DRY 4-Z KNX > Logic A Led output		
General	Output A function	LED status indication
Logic function A	LED functionality	<input type="radio"/> Switch status ON/OFF <input checked="" type="radio"/> Flashing
Block A	Maximum drive voltage of LED(100%)	2V
Logic function B	Default ON brightness of LED	100%(255)
Logic function C	LED control mode	<input checked="" type="radio"/> Local status <input type="radio"/> Via bus(1bit-Operation and 1byte-Brightness)
Logic function D	Change ON brightness via bus	<input checked="" type="radio"/> No <input type="radio"/> Yes
Logic function E	-LED status response(1bit)	Invalid
Logic A Led output	-LED status response(1byte)	Invalid
Logic B Led output	LED flashing indication	Flashing if value is 'True' / '>=1', else stop
Logic C Led output	Duration time for brightness:base	100ms
Logic D Led output	-Factor[1..255]->time=base*factor	1
	Duration time for darkness:base	100ms

Fig 22: "Flashing" parameter window

LED is flashing. The flashing parameters are set as follows.

- **Maximum LED drive voltage (100%)**

Sets the LED maximum drive voltage. The range is 1V to 10V.

Options: **1V-10V**

- **Default LED ON brightness**

Sets the default LED brightness. The range is 10% to 100%.



Options: 10% - 100% (255)

- **LED control mode**

Sets the LED control mode.

Options: **Local status**

Via bus (1 bit - operation and 1 byte - brightness)

Local status: LED controlled by local status.

Via bus: LED controlled by telegram via the bus.

- **Change the brightness via the bus**

Enables changing the brightness via the bus.

Options: **NO**

YES

NO: cannot change the brightness via the bus.

YES: can change the brightness via the bus.

- **LED status (1 bit) response**

Sets the LED status response.

Options: **Invalid**

1 bit always response

1 bit only changed

1 bit always response: it always responds.

1 bit only changed: it responds when the status is changed.

- **LED status (1 byte) response**

Options: **Invalid**

1 byte always response

1 byte only changed

1 byte always response: it always responds.

1 byte only changed: it responds only when the status is changed.

- **LED indication**

Options: **Flashing if value ≥ "1", else stop**

Flashing if value is "0", else stop

Always flashing

Flashing if value ≥ "1", else OFF: value ≥ "1", LED is flashing, else LED is not flashing.

Flashing if value is "0", else OFF: the value is 0, LED is flashing, else LED is OFF.

Always flashing: LED is always flashing.



- **Brightness duration: base**

Sets the base delay time.

Options: **100 ms, 1 sec, 1 min 1 hour**

- **Factor(1-255)->time = base*factor**

Options: **1-255**

Sets the delay time; this time is option value*base. After this time, the LED automatically reaches the set brightness value.

- **Darkness duration: base**

Sets the base delay time.

Options: **100 ms, 1 sec, 1 min 1 hour**

- **Factor(1-255)->time = base*factor**

Options: **1-255**

Sets the delay time; this time is option value*base. After this time, the LED automatically darkens to the set value.

- **Flashing time limit**

Sets the flashing duration; after this time the LED will stop flashing

Flashing time limit	<input type="radio"/> No <input checked="" type="radio"/> Yes
-Flashing time limit:base	1sec
-Factor[1..255]->time=base*factor	5
LED status after stop	OFF

- **LED following bus voltage recovery**

Options: **OFF**

ON

Sets the LED following bus voltage recovery.



5.2.2.2 Logic function A

1.1.1 CU-DIN DRY 4-Z KNX > Logic function A

General	Enable logical block A	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Logic function A		
Block A	Input detection	Temperature sensor
Logic function B	Temperature compensation(-5C..+5C)	0C
Logic function C	->Temperature >= Threshold1(-30C..+50C)	20
Logic function D	->Temperature <= Threshold2(-30C..+50C)	30
Logic function E		
Logic A Led output	>>Temperature input status	<input checked="" type="radio"/> In range is True,else False <input type="radio"/> Out range is True,else False
Logic B Led output	>>Temperature report	<input checked="" type="radio"/> No <input type="radio"/> Yes
Logic C Led output	Enable external telegram <1>	1bit value('1'/'0')
Logic D Led output	->Extern telegram status	<input checked="" type="radio"/> '1' is True,'0' is False <input type="radio"/> '0' is True,'1' is False
	->Default status after bus voltage recovery	<input type="radio"/> False <input checked="" type="radio"/> True
	Enable external telegram <2>	Disable

Fig 23: "Logic function A" parameter window

This window sets the logic A parameters. There are 6 logic conditions at most.

- **Enable logic block A**

Options: **Disable**
Enable

Disable: the logic block A is invalid.

Enable: you can set logic block A's function.

- **Input detection**

"Input A" as a logic condition.

Options: **Disable**
Dry contact sensor
Temperature sensor

Disable: "input A" is not a logic condition.

Dry contact sensor: input A's work mode is dry contact sensor.

Temperature sensor: input A's work mode is temperature sensor.

Temperature compensation (-5C--+5C)



- **When input detection is dry contact sensor**

1.1.1.1 CU-DIN DRY 4-Z KNX > Logic function A

General	Enable logical block A	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Logic function A		
Block A	Input detection	Dry contact sensor
Logic function B	Dry contact type	<input type="radio"/> Mechanical switch <input checked="" type="radio"/> Electronic switch
Logic function C	--The normally contact status is	<input type="radio"/> Closed <input checked="" type="radio"/> Open
Logic function D	>>Status when short button operation	True
Logic function E	>>Status when long button operation	False
Logic A Led output	--Long button time after	1s
Logic B Led output	--The status after bus voltage recovery	<input type="radio"/> False <input checked="" type="radio"/> True
Logic C Led output	>>Dry contact status report	<input checked="" type="radio"/> No <input type="radio"/> Yes
Logic D Led output	Enable external telegram <1>	1bit value('1'/'0')
	--Extern telegram status	<input checked="" type="radio"/> '1' is True,'0' is False <input type="radio"/> '0' is True,'1' is False

Fig 23.1: "Input detection is dry contact sensor" parameter window

- **Dry contact type: Electronic switch**

Mechanical switch

When the dry contact sensor is an electronic switch, the parameters must be set as follows.

Dry contact type	<input type="radio"/> Mechanical switch <input checked="" type="radio"/> Electronic switch
--The normally contact status is	<input type="radio"/> Closed <input checked="" type="radio"/> Open
>>Status when short button operation	True
>>Status when long button operation	False
--Long button time after	1s
--The status after bus voltage recovery	<input type="radio"/> False <input checked="" type="radio"/> True
>>Dry contact status report	<input checked="" type="radio"/> No <input type="radio"/> Yes



- Normal contact status is

Options: **Open**
 Closed

Sets the dry contact status when not operating.

Close: the contact status is closed.

Open: the contact status is open.

Status for short button operation

Status for long button operation

Options: **Invalid**
 True
 False
 Toggle

These two parameters concern the logic conclusion when buttons are operated.

- **Length of long button press**

Options: **0.2 s-60 s**

Sets the time to be defined as a long button press. The range is 0.2 s to 60 s.

- **Status following bus voltage recovery**

Options: **Invalid**
 True
 False
 Toggle

Sets the logic conclusion following bus voltage recovery.

- **Dry contact status report**

Options: **NO**
 YES

Whether or not to report the status of the dry contact.

When the dry contact sensor is a mechanical switch, the parameters must be set as follows.

Dry contact type	<input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
>>Status when closing the contact	True
>>Status when opening the contact	False
>>Dry contact status report	<input checked="" type="radio"/> No <input type="radio"/> Yes



- **Status when the contact is closed**
- **Status when the contact is opened**

Options: **Invalid**
 True
 False
 Toggle

These two parameters concern the logic conclusion when buttons are operated.

- **Dry contact status report**

Options: **NO**
 YES

Whether or not to report the status of the dry contact

- **Enable external telegram<1>:**

External telegram <1> as a logic condition.

Options: **Disable**
 1 bit value ("1"/"0")
 1 byte threshold (0-255)
 2 byte threshold (0-65535)
 2 byte float threshold (-50-50)
 4 byte threshold (0-2147483647)

Disable: External telegram <1> is invalid.

1 bit value ("1"/"0"): when the external telegram has a 1 bit value, the logic is true or false.

Enable external telegram <1>	1bit value('1'/'0')
->Extern telegram status <input checked="" type="radio"/> '1' is True,'0' is False <input type="radio"/> '0' is True,'1' is False	
->Default status after bus voltage recovery <input type="radio"/> False <input checked="" type="radio"/> True	

- **Default status following bus voltage recovery:** sets the status as true or false following voltage recovery.



2 byte threshold (0-65535): the external telegram threshold is 2 bytes, the settings are as follows.

Enable external telegram <1>	1byte threshold(0..255)
->1byte threshold(0..255)	100
->Quiver:<(threshold - n) or >(threshold + n) on false	1
->Extern telegram status	<input checked="" type="radio"/> True if REV value ≥ Threshold,else False <input type="radio"/> True if REV value ≤ Threshold,else False
->Default status after bus voltage recovery	<input type="radio"/> False <input checked="" type="radio"/> True

- **1 byte threshold (0-255):** set the threshold, the range is 0-255.
- External telegram status:

Options: **True if REV value ≥ threshold, else False**

True if REV value ≤ threshold, else False

True if REV value ≥ threshold, else False: when the external telegram value ≥ threshold, the logic is true, else it is false.

True if REV value ≤ threshold, else False: when the external telegram value ≤ threshold, the logic is true, else it is false.

- Default status following bus voltage recovery: sets the status as true or false following voltage recovery.

2 byte threshold (0-65535)

2 byte float threshold (-50-50)

4 byte threshold (0-2147483647)

The settings for these three external telegram types are same as the above settings.

- **Enable external telegram<2>**
- **Enable external telegram<3>**
- **Enable external telegram<4>**
- **Enable external telegram<5>**

The settings are same as for "Enable external telegram<1>".

- **Logic relation of Block A**

Options: **AND**
OR



- **Result of logic A inverted**

Whether or not the results of the logic should be inverted

Options: **NO**
 YES

5.2.2.3 Block A

1.1.1 CU-DIN DRY 4-Z KNX > Block A

General	Object output 1 (to bus)	Switch controller
Logic function A	Object output 2 (to bus)	Scene controller
Block A	Object output 3 (to bus)	Invalid
A1:Switching	Object output 4 (to bus)	Invalid
A2:Scene	Object output 5 (to bus)	Invalid
Logic function B	Object output 6 (to bus)	Invalid
Logic function C	Object output 7 (to bus)	Invalid
Logic function D	Object output 8 (to bus)	Invalid
Logic function E	Object output 9 (to bus)	Invalid
Logic A Led output	Object output 10 (to bus)	Invalid
Logic B Led output	Telegram is transmitted of minimum time interval:base	100ms
Logic C Led output	-Factor[1..255]->time=base*factor	1
Logic D Led output		

Fig 24: "Block A" parameter window

This parameter window sets the target type when logic A is true.

- **Object output 1 (to bus)**

Options: **Invalid**
 Switch controller
 Alarm controller
 Shutter controller
 Scene controller
 Sequence controller
 Percentage controller
 Threshold controller
 String (14 bytes) controller



There are nine kinds of target type; the settings are detailed as follows. The default is invalid.

- **Switch controller**

1.1.1 CU-DIN DRY 4-Z KNX > A1:Switching		
General	The status after bus voltage recovery	ON
Logic function A	Logical block output when TRUE	ON
Block A	Time delay for logical block when TRUE (0..65535s)	0
A1:Switching	Logical block output when FALSE	Invalid
A2:Scene	Time delay for logical block when FALSE (0..65535s)	0
Logic function B		
Logic function C		
Logic function D		
Logic function E		

Fig 24.1: "A1:Switching" parameter window

- **Status following bus voltage recovery:**

Options: **Invalid**
 ON
 OFF
 Recovery

In the event of power on and bus voltage recovery, this function will be executed. Four options will be available as follows:

Recovery: Following bus voltage recovery, the channel switch position will revert to its state at the previous power-down.

ON: The channel position will switch ON following bus voltage recovery.

OFF: The channel position will switch OFF following bus voltage recovery.

Recovery: The channel switch position returns to its status before bus voltage recovery.

- **Logic block output when true:**

Options: **Invalid**
 ON
 OFF
 Toggle



- **Alarm**

1.1.1 CU-DIN DRY 4-Z KNX > A1:Alarm		
General	The status after bus voltage recovery	According to logical status
Logic function A	Logical block output when TRUE	Alarm
Block A	Time delay for logical block when TRUE (0..65535s)	0
A1:Alarm		
A2:Scene	Logical block output when FALSE	No alarm
Logic function B	Time delay for logical block when FALSE (0..65535s)	0
Logic function C		
Logic function D		
Logic function E		

Fig 24.2: "A1: Alarm" parameter window

- **Status following bus voltage recovery:**

Options: **Invalid**
 Alarm
 No alarm
 Recovery
 According to logic status

- **Logic block output when TRUE:**

Options: **Invalid**
 Alarm
 No alarm
 Toggle

- **Time delay for logic block when TRUE (0-65535):**

Options: **0-65535**

Logic block output when FALSE:

Options: **Invalid**
 Alarm
 No alarm
 Toggle

- **Time delay for logic block when FALSE (0-65535):**

Options: **0-65535**



- **Shutter controller**

1.1.1 CU-DIN DRY 4-Z KNX > A1:Shutter		
General	The status after bus voltage recovery	According to logical status
Logic function A	Logical block output when TRUE	UP
Block A	Time delay for logical block when TRUE (0..65535s)	0
A1:Shutter		
Logic function B	Logical block output when FALSE	DOWN
Logic function C	Time delay for logical block when FALSE (0..65535s)	0
Logic function D		
Logic function E		

Fig 24.3: "A1: Shutter" parameter window

- **Status following bus voltage recovery:**

Options: Invalid
UP
DOWN
Recovery
According to logic status

- **Logic block output when TRUE:**

Options: Invalid
Toggle
UP
DOWN

- **Time delay for logic block when TRUE (0-65535):**

Options: 0-65535

- **Logic block output when FALSE:**

Options: Invalid
Toggle
UP
DOWN

- **Time delay for logic block when FALSE (0-65535):**

Options: 0-65535



- **Scene**

1.1.1 CU-DIN DRY 4-Z KNX > A1:Scene		
General	The status after bus voltage recovery	According to logical status
Logic function A	Logical block output when TRUE	Scene NO.01
Block A	Time delay for logical block when TRUE (0..65535s)	0
A1:Scene		
Logic function B	Logical block output when FALSE	Scene NO.02
Logic function C	Time delay for logical block when FALSE (0..65535s)	0
Logic function D		

Fig 24.4: "A1: Scene" parameter window

- **Status following bus voltage recovery:**

Options: Invalid
Defined scene
Recovery
According to logic status

- **Logic block output when TRUE:**

Options: Invalid
Scene No. 01
to
Scene 64

- **Time delay for logic block when TRUE (0-65535):**

Options: 0-65535

- **Logic block output when FALSE:**

Options: Invalid
Scene No. 01
to
Scene 64

Time delay for logic block when FALSE (0-65535):

Options: 0-65535



- **Sequence**

1.1.1 CU-DIN DRY 4-Z KNX > A1:Sequence		
General	The status after bus voltage recovery	According to logical status ▼
Logic function A	Logical block output when TRUE	Start ▼
Block A	Time delay for logical block when TRUE (0..65535s)	0 ▲▼
A1:Sequence		
Logic function B	Logical block output when FALSE	Stop ▼
Logic function C	Time delay for logical block when FALSE (0..65535s)	0 ▲▼
Logic function D		
Logic function E		
Logic A Led output		

Fig 24.5: "A1: Sequence" parameter window

- **Status following bus voltage recovery:**

Options: Invalid
Start
Stop
Recovery
According to logic status

Logic block output when TRUE:

Options: Invalid
Toggle
Start
Stop

- **Time delay for logic block when TRUE (0-65535):**

Options: 0-65535

- **Logic block output when FALSE:**

Options: Invalid
Toggle
Start
Stop

- **Time delay for logic block when FALSE (0-65535):**

Options: 0-65535



- **Percentage**

1.1.1 CU-DIN DRY 4-Z KNX > A1:Percentage		
General	The status after bus voltage recovery	According to logical status ▼
Logic function A	Logical block output when TRUE	100%(255) ▼
Block A	Time delay for logical block when TRUE (0..65535s)	0 ▲▼
A1:Percentage		
Logic function B	Logical block output when FALSE	0%(0) ▼
Logic function C	Time delay for logical block when FALSE (0..65535s)	0 ▲▼
Logic function D		

Fig 24.6: "A1: Percentage" parameter window

- **Status following bus voltage recovery:**

Options: **Invalid**
 Defined percentage
 Recovery
 According to logic status

- **Logic block output when TRUE:**

Options: **Invalid**
 0%(0)-100%(255)

- **Time delay for logic block when TRUE (0-65535):**

Options: **0-65535**

- **Logic block output when FALSE:**

Options: **Invalid**
 0%(0)-100%(255)

Time delay for logic block when FALSE (0-65535):

Options: **0-65535**



- **Threshold**

1.1.1 CU-DIN DRY 4-Z KNX > A1:Threshold

General	Threshold control type	<input checked="" type="radio"/> 1byte threshold <input type="radio"/> 2bytes threshold
Logic function A	The status after bus voltage recovery	According to logical status
Block A	TRUE is valid?	<input type="radio"/> No <input checked="" type="radio"/> Yes
A1:Threshold	Logical block output when TRUE	255
Logic function B	Time delay for logical block when TRUE (0..65535s)	0
Logic function C	FALSE is valid?	<input type="radio"/> No <input checked="" type="radio"/> Yes
Logic function D	Logical block output when FALSE	0
Logic function E	Time delay for logical block when FALSE (0..65535s)	0
Logic A Led output		
Logic B Led output		

Fig 24.7: "A1: Threshold" parameter window

- **Threshold control type:**

Options: **1 byte threshold**
 2 byte threshold

- **Status following bus voltage recovery:**

Options: **Invalid**
 Defined threshold
 Recovery
 According to logic status

- **TRUE is valid?**

Options: **NO**
 YES

TRUE is valid?	<input type="radio"/> No <input checked="" type="radio"/> Yes
Logical block output when TRUE	1000
Time delay for logical block when TRUE (0..65535s)	0

- **Block output when TRUE:**

Options: **Invalid**
 Toggle
 Start



Stop

- **Time delay for logic block when TRUE (0-65535):**

Options: **0-65535**

- **Logic block output when FALSE:**

Options: **Invalid**
Toggle
Start
Stop

- **Time delay for logic block when FALSE (0-65535):**

Options: **0-65535**

1.1.1 CU-DIN DRY 4-Z KNX > Block E		
General	Object output 1 (to bus)	Switch controller
Logic function A	Object output 2 (to bus)	Invalid
Block A	Object output 3 (to bus)	Invalid
A1:Shutter	Object output 4 (to bus)	Invalid
A2:Scene	Object output 5 (to bus)	Invalid
Logic function B	Object output 6 (to bus)	Invalid
Logic function C	Object output 7 (to bus)	Invalid
Logic function D	Object output 8 (to bus)	Invalid
Logic function E	Object output 9 (to bus)	Invalid
Block E	Object output 10 (to bus)	Invalid
E1:Switching	Telegram is transmitted of minimum time interval:base	100ms
Logic A Led output	-Factor[1..255]-> time=base*factor	1

Fig 25: "Block E" parameter window



5.2.3 "Dimming controller" work mode

1.1.1 CU-DIN DRY 4-Z KNX > General		
General	Work mode	Dimming controller
G:sequence 1	System delay(2..255s) after bus voltage recovery	2
G:sequence 2	Heartbeat telegram(1..65535s,0-invalid)	0
G:sequence 3	->Temperature Quiver:<(threshold - n) or >(threshold + n) on out range	1C
G:sequence 4	Enable sequence 1	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel A	Enable sequence 2	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
A>Dimming config	Enable sequence 3	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel B	Enable sequence 4	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
B>Dimming config	Enable sequence 5	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel C		
C>Dimming config	NOTE:Channel output range is 0..10V	

Fig 26: "Dimming controller" parameter windows

- **System delay (2-255s) following bus voltage recovery**

The device experiences a delay for 2-255 s after powering on. The default value is 2 seconds. The min. value is 2 seconds and the max. value is 255 seconds.

Options: **2-255 s**

- **Heartbeat telegram (1-65535s, 0 - invalid)**

The range of the parameter is 0 to 65535 s. 0 as the parameter value disables the function, other parameter values enable this function.

Options: **0-65535 s**

When the parameter is set to non-zero, the device will send telegram data cyclically on time-out. It alternates between sending the values 0 and 1.

The user decides whether or not to use this function.

- **Temperature Quiver: < (threshold – n) or > (threshold +n) on out range**

If the temperature changes within the effective range, the status does not change.

When the temperature changes are greater than **n**, the status will change. The quiver range is between threshold – n and threshold, or between threshold and threshold +n.

Options: **0-10°C**



- **Enable sequence 1**

Options: Disable
 Enable

Sets enabling sequence 1. If Enable is selected, the following parameters must be set.

5.2.3.1 G : Sequence 1

1.1.1 CU-DIN DRY 4-Z KNX > G:sequence 1		
General	Operation mode of the sequence 1	Start with "1", Stop with "0"
G:sequence 1	Control mode of the sequence 1	FWD
G:sequence 2	Runing mode of the sequence 1	<input type="radio"/> Single <input checked="" type="radio"/> Cycle
G:sequence 3	Runing time(0..255 hours,0h&0m-unlimited)	0
G:sequence 4	Runing time(0..59 mins,0h&0m-unlimited)	0
G:sequence 5	Position after running time out	Invalid
Channel A	Total 24 steps,configuration as following:	
A>Dimming config	>>Step 1 configuration	Invalid
Channel B	Time for step 1 (0..65535s)	5
B>Dimming config	Time for step 1 (0..999ms)	0
Channel C	>>Step 2 configuration	Invalid
C>Dimming config	Time for step 2 (0..65535s)	5
Channel D		

Fig 27: "G: sequence 1" parameter windows

- **Sequence 1 operating mode**

Sets the operating mode.

Options: **"1" to start, "0" to stop**
 "0" to start, "1" to stop
 "1/0" to start, cannot stop

"1" to start, "0" to stop: When "1" is received, sequence 1 runs. When "0" is received, sequence 1 stops.

"0" to start, "1" to stop: When "0" is received, sequence 1 runs, When "1" is received, sequence 1 stops.

"1/0" to start, cannot stop: When "1" or "0" is received, sequence 1 runs.

- **Sequence 1 control mode**

Sets the control mode.

Options: **FWD**



REW
Random

FWD: Forward mode

REW: Reverse mode

RANDOM: Random mode

- **Sequence 1 running mode**

Sets the running mode

Options: **Single**
Cycle

Single: Run only once.

Cycle: Cycle run.

- **Running time (0-255 hours , 0 h & 0 m - unlimited)**

Sets the sequence running time.

Options: **0-255**

- **Running time (0-59 mins, 0 h & 0 m - unlimited)**

Sets the sequence running time. The longest time is 59 mins.

Options: **0-59**

Note: Unlimited when time is set to 0 hours & 0 mins.

- **Position after time-out**

If the sequence is running in Cycle mode and the run time is greater than zero, the sequence will return to the set position after timing out.

Total 24 steps, configuration as follows:

- **Step 1 configuration**

Options: **Invalid**
Scene No. 01
to
Scene No. 64

- **Time for step 1 (0-65535 s)**

Sets the time for the step. The longest time is 65535 s.

- **Time for step 1 (0-999 ms)**

Sets the time for the step. The longest time is 999 ms. Setting the other steps is same as for step 1.



5.2.3.2 Channel A

1.1.1 CU-DIN DRY 4-Z KNX > Channel A		
General	Input A detection	Dry contact sensor
G:sequence 1	The response of channel status(1bit)	Invalid
Channel A	The response of channel status(1byte)	Invalid
A>Dimming config	Synchronization control relay(Channel brightness>0 is ON,else OFF)	<input checked="" type="radio"/> No <input type="radio"/> Yes
A>Dry detection	Statistics total ON time to allow (0..65535h=7.4years)	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Channel B	The status after bus voltage recovery	OFF
B>Dimming config	Maximum level	100%(255)
Channel C	Upper threshold level	100%(255)
C>Dimming config	Lower threshold level	0%(0)
Channel D	Dimming minimum level	0%(0)
D>Dimming config	Show the function page ==>>	<input type="radio"/> Disable <input checked="" type="radio"/> Enable

Fig 28: "Channel A" parameter window

- **Input A detection**

Sets the input A detection type.

Options:

No detection

Dry contact sensor

Temperature sensor

No detection: input A is invalid.

Dry contact sensor: input A is a dry contact sensor.

If this type is selected, the settings below will appear.



1.1.1.1 CU-DIN DRY 4-Z KNX > A>Dry detection	
General	Dry contact type <input checked="" type="radio"/> Mechanical switch <input type="radio"/> Electronic switch
Gsequence 1	Reaction when closing the contact ON
Channel A	Reaction when opening the contact OFF
A>Dimming config	The operation time interval:base 10ms
A>Dry detection	-Factor[1..255]->time=base*factor 1
Afunction	
Channel B	
B>Dimming config	
Channel C	
C>Dimming config	
Channel D	
D>Dimming config	

- **Dry contact type:**

Options: **Mechanical switch.**
 Electronic switch

Mechanical switch

- **Reaction when the contact is closed**
- **Reaction when the contact is opened**

Options: **Unchanged**
 ON OFF Toggle
 Dim->Brighter
 Dim->Darker
 Dim->Brighter/Darker
 Dim->Stop

Invalid: the dry contact is invalid.

Dim->Brighter: increases the brightness when the dry contact is operated.

Dim->Darker: decreases the brightness when the dry contact is operated.

Dim->Brighter/Darker: increases/decreases the brightness when the dry contact is operated.

Dim->Stop: stops when the dry contact is closed.

- **Operation time interval: base**

Factor (1-255) ->time=base*factor

These two parameters set the time interval for repeating dry contact operation, the time is base*factor.



Options: **10 ms, 100 ms, 1 sec, 1 min, 1 hour**

Factor (1-255)->time=base*factor

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.

- **Electric switch**

1.1.1 CU-DIN DRY 4-Z KNX > A>Dry detection		
General	Dry contact type	<input type="radio"/> Mechanical switch <input checked="" type="radio"/> Electronic switch
Gsequence 1	The normally contact status is	<input type="radio"/> Closed <input checked="" type="radio"/> Open
Channel A	Reaction when short button operation	Toggle
A>Dimming config	Reaction when long button operation	Dim->Brighter/Darker
A>Dry detection	Long button time after	1s
A: function	The operation time interval: base	10ms
Channel B	-Factor[1..255]->time=base*factor	1
B>Dimming config		

The dry contact type is electronic switch

- **Normal contact status is**

Options: **Close**
Open

Sets the dry contact status when not operating.

Close: the contact status is closed.

Open: the contact status is open

- **Reaction to short button operation**
- **Reaction to long button operation**

Options: **Invalid**
Unchanged
ON
OFF
Toggle

These two parameters concern the reaction when buttons are operated.

- **Length of long button press**

Options: **0.2 s-60 s**

Sets the time to be defined as a long button press. The range is 0.2 s to 60 s.



- **Operation time interval: base**

Options: **10 ms, 100 ms, 1 sec, 1 min, 1 hour**

Factor (1-255) → $\text{time} = \text{base} \times \text{factor}$

These two parameters set the time interval of repeat dry contact operation; the time is $\text{base} \times \text{factor}$.

- **Channel status response (1 bit)**

Options: **Invalid**

1 bit always response

1 bit only changed

1 bit always response: it always responds. If the channel is ON, the response is 1. If the dimmer is OFF, the response is 0.

1 bit only changed: It will respond when the dimmer state is changed.

- **Channel status response (1 byte)**

Options: **Invalid**

1 byte always response

1 byte only changed

1 byte always response: It always responds with the light level value.

1 byte only changed: It will respond when the light value is changed.

Synchronization control relay (Channel brightness > 0 is ON, else OFF)

Options: **NO**

YES

- **Statistics total ON time to be allowed (0-65535 h = 7.4 years)**

This function is used to calculate the total ON time for output channel. The maximum time is 65535 h. This function is very useful as you can find out the channel work status using this function.

Options: **Disable**

Enable

Disable: Don't time.

Enable: Statistics time.

Statistics total ON time to allow (0..65535h=7.4years)	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Alarm when time out(1..65535h,0-invalid)	<input type="text" value="30000"/>
Transmit telegram interval when alarm (1..255s)	<input type="text" value="10"/>



- **Alarm when times out (1-65535 h, 0 - invalid)**

When the device's operating time reaches the set value the alarm will be triggered.

The value range is 1-65535 h, 0 is invalid.

Transmit telegram interval when alarm is triggered

Sets the alarm time interval.

- **Status following bus voltage recovery**

Sets the status of restore mode after power on for each channel.

Options: **OFF**

Defined brightness value

Last brightness value

Off: After powering on and the channel's status is off.

Defined brightness value: After powering on and the channel's status is the defined brightness value

Last brightness value: After power on and the channel's status is the defined brightness value

- **Brightness value**

Sets the brightness value.

- **Maximum level**

Sets the maximum level.

Options: **0%(0) - 100%(255)**

- **Upper threshold level**

Sets the upper threshold level.

Options: **0%(0) - 100%(255)**

- **Lower threshold level**

Sets the lower threshold level.

Options: **0%(0) - 100%(255)**

- **Minimum dimming level**

Sets the minimum dimming level.

Options: **0%(0) - 100%(255)**

- **Show the function page== >>**

Sets enable/disable and shows the function page.

Options: **Disable**



Enable

Disable: Don't show the dimmer function page.

Enable: Show the function page for setting the dimmer function.

5.2.3.3 Dimming configuration

1.1.1 CU-DIN DRY 4-Z KNX > A>Dimming config		
General	Switching ON fade time(0..255s)	3
Channel A	Switching OFF fade time(0..255s)	3
A>Dimming config		
A>Dry detection	Enable relative dimming	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
A>function	-Relative(4bits) dimming fade time (brightness0%..100%/2..255s)	5
Channel B	-Relative dimming is saved as the brightness of the switch	<input checked="" type="radio"/> No <input type="radio"/> Yes
B>Dimming config	Enable absolute dimming	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Channel C		
C>Dimming config		
Channel D		
D>Dimming config		

Fig 29: "Dimming config" parameter window

- **Switching ON fade time (0-255 s)**

Sets the time for switching ON.

NOTE: brightness 0% - 100%/0-255 s

- **Switching OFF fade time (0-255 s)**

Sets the time for switching OFF.

Note: brightness 0% - 100%/0-255 s

- **Enable relative dimming**

Options: **Disable**

Enable

Disable: Don't allow relative dimming

Enable: Allow relative dimming

NOTE: Relative dimming fade time (brightness 0% - 100%/0-255 s), the data length is 4 bits



- **Enable absolute dimming**

Options: **Disable**

Enable

Disable: Don't allow absolute dimming

Enable: Allow absolute dimming

NOTE: Absolute dimming fade time (brightness 0% - 100%/0 - 255 s), the data length is 1 byte

5.2.3.4 A: function

1.1.1 CU-DIN DRY 4-Z KNX > A:function		
General	Enable function "staircase light"	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Channel A	Enable function "flashing"	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
A>Dimming config	Enable function "scene"	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
A>Dry detection	Enable function "threshold"	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
A:function	Enable function "heating"	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
A:staircase light	NOTE:Recommend to only use a function for a channel.	
A:flashing		
A:scene		
A:threshold		
A:heating		

Fig 30: "A:function" parameter window

The window for enabling the functions below.

- **Enable "staircase light" function**
- **Enable "flashing" function**
- **Enable "scene" function**
- **Enable "threshold" function**
- **Enable "heating" function**
- **A: "staircase light" function**



1.1.1 CU-DIN DRY 4-Z KNX > A:staircase light		
General	Staircase light operation	Start with "1", Stop with "0" ▼
Channel A	Brightness value	100%(255) ▼
A>Dimming config	Fade time of brighter(0..255s)	3 ▲▼
A>Dry detection	Fade time of darker(0..255s)	3 ▲▼
A:function	Duration time for brightness:base	1sec ▼
A:staircase light	-Factor[1..255]-> time=base*factor	5 ▲▼
A:flashing	Change staircase light time factor via bus	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
A:scene	Alarm staircase light via bus	<input checked="" type="radio"/> No <input type="radio"/> Yes
A:threshold		
A:heating		

Fig 30.1: "Staircase light" parameter windows

For staircase applications

- **Staircase lighting operation**

Options: "1" to start, "0" to stop
"1" to start, "0" invalid
"1/0" to start, cannot stop

"1" to start, "0" to stop: When data 1 is received and the staircase light starts running automatically, stop with time-out or stop with 0.

"1" to start, "0" invalid: When data 1 is received and the staircase light starts running automatically, 0 is invalid.

"1/0" to start, cannot stop: When data 1/0 is received and the staircase light starts running automatically, cannot stop.

- **Brightness value**

Sets the brightness value of the staircase light.

- **Brighter fade time: (0-255 s)**

Fade time in the brighter state in seconds.

- **Darker fade time: (0-255 s)**

Fade time in the darker state in seconds.

- **Brightness duration: base Duration of the brightness state in minutes.**

Options: 1 sec, 1 min, 1 hour



- Factor(1-255)->time=base*factor

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.

- **Change staircase lighting time via bus**

Options: **Disable**
 Enable

Disable: Cannot change the staircase lighting delay off time via the bus; it can only be set via the database.

Enable: Allow the user to modify the staircase lighting delay off time via the bus.

- **Alarm staircase lighting via bus**

Options: **NO**
 YES

NO: Disable alarm.

YES: Allow alarm via bus by the user.

- **A: "Flashing" function**

1.1.1 CU-DIN DRY 4-Z KNX > A:flashing		
General	Flashing operation	Start with "1", Stop with "0" ▼
Channel A	Brightness value	100%(255) ▼
A>Dimming config	Fade time of brighter(0..255s)	3 ▲▼
A>Dry detection	Fade time of darker(0..255s)	3 ▲▼
A:function	Duration time for brightness:base	1sec ▼
A:staircase light	-Factor[1..255]->time=base*factor	5 ▲▼
A:flashing	Duration time for darkness:base	1sec ▼
A:scene	-Factor[1..255]->time=base*factor	5 ▲▼
A:threshold	Flashing number(1..255,0-Unlimited)	0 ▲▼
A:heating	Brightness after achieves the flashing number	Invalid ▼
Channel B		
B>Dimming config		

Fig 30.2: "Flashing" parameter window
Flashing between ON and OFF in this mode.

- **Flashing operation**

This function has three control modes.

Options: **"1" to start, "0" to stop**
 "1" to start, invalid with "0"



"1/0" to start, cannot stop

"1" to start, "0" to stop: Start flashing with 1 and stop flashing with 0.

"1" to start, invalid with "0": Start flashing with 1 and invalid with 0.

"1/0" to start, cannot stop: Start flashing with 1 or 0, cannot stop.

- **Brightness value : 0% - 100%**

Sets the brightness value.

- **Brighter fade time: (0-255 s)**

Fade time in the brighter state in seconds.

- **Darker fade time: (0-255 s)**

Fade time in the darker state in seconds.

- **Brightness duration: base**

Duration of the brightness state in minutes.

Options: **1 sec, 1 min, 1 hour**

- Factor(1-255)->time=base*factor

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.

- **Darkness duration: base**

Duration of the darkness state in minutes.

Options: **1 sec, 1 min, 1 hour**

- Factor(1-255)->time=base*factor

These two parameters set the time interval of repeat dry contact operation; the time is base*factor.

- **Darkness duration: (0-255 mins)**

Duration of the darkness state in minutes.

- **Flashing number (0-255, 0 - Unlimited)**

Flashing, range between 0 and 255. 0 is unlimited.

- **Brightness once flashing number achieved**

Sets the brightness after achieving the flashing number. The range is 0%(0) - 100% (255).



- **A: "Scene" function**

1.1.1 CU-DIN DRY 4-Z KNX > A:scene		
General	Fade time of scene dimming(2..255s)	5
Channel A	Total 10 scenes,configuration as following:	
A>Dimming config	>>Output assigned to(scene 1..64)	Not allocate
A>Dry detection	Output brightness value	100%(255)
A:function	Fade time for brighter/darker(0..255s)	3
A:staircase light	>>Output assigned to(scene 1..64)	Not allocate
A:flashing	Output brightness value	100%(255)
A:scene		
A:threshold	Fade time for brighter/darker(0..255s)	3
A:heating	>>Output assigned to(scene 1..64)	Not allocate
Channel B	Output brightness value	100%(255)
B>Dimming config	Fade time for brighter/darker(0..255s)	3
Channel C	>>Output assigned to(scene 1..64)	Not allocate

Fig 30.3: "Scene" parameter window

- **Scene dimming fade time: (0-255 s)**

Fade time in the brighter state in seconds.

**Total 10 scenes, configuration as follows, with the setting as per below.
Each scene is the same as the following:**

- **Output assigned to (scene 1-.64)**

Allocate the scene.

- **Output brightness value**

Sets the output brightness value 0%-100%

- **Brighter/darker fade time (0-255 s)**

Sets the brighter or darker time.



- **A: "Threshold" function**

1.1.1 CU-DIN DRY 4-Z KNX > A:threshold	
General	Brightness value for switch ON of threshold 100%(255)
Channel A	Fade time for switch ON of threshold(0..255s) 3
A>Dimming config	Fade time for switch OFF of threshold (0..255s) 3
A>Dry detection	
A:function	"Threshold input" type <input checked="" type="radio"/> 1byte threshold <input type="radio"/> 2bytes threshold
A:staircase light	--Threshold 1 value is (0..255) 80
A:flashing	--Threshold 2 value is (0..255) 180
A:scene	-> [Input object value<Lower threshold] ON
A:threshold	-> {Lower thr..<=Object value<=Upper thr..} Unchange
A:heating	-> [Input object value>Upper threshold] OFF
Channel B	
B>Dimming config	Change threshold 1 via bus <input checked="" type="radio"/> Disable <input type="radio"/> Enable
Channel C	Change threshold 2 via bus <input checked="" type="radio"/> Disable <input type="radio"/> Enable

Fig 30.4: "Threshold" parameter window

- **Brightness value for switching threshold ON**

Configures the brightness for switching ON

- **Fade time for switching threshold ON (0-255 s)**

Configures the time for switching ON

- **Fade time for switching threshold OFF (0-255 s)**

Configures the time for switching OFF

- **Threshold input type**

Options: **1 byte threshold**
2 byte threshold

Sets the threshold input type.

- **Threshold 1 value is (0-255)**

Sets the threshold 1 value between 0 and 255. Default is 80.

- **Threshold 2 value is (0-255)**

Sets the threshold 2 value between 0 and 255. Default is 180.

- **Input object value<Lower threshold**



If the value of the receiving telegram from the bus is lower than the minimum threshold value, the switch will be activated according to the below options (ON or OFF or Unchange)

Options: **Unchange**
 ON
 OFF

Unchange: The channel switch position is set to unchange.

ON: The channel switch position is set to ON.

OFF: The channel switch position is set to OFF

- **Lower threshold ≤ Input value ≤ Upper threshold**

If the value of the receiving telegram from the bus is between the lower threshold and upper threshold, the switch will be activated according to the below options (ON or OFF or no action)

Options: **Unchange**
 ON
 OFF

Unchange: The channel switch position is set to unchange.

ON: The channel switch position is set to ON.

OFF: The channel switch position is set to OFF

- **Input value > Upper threshold**

If the value of the receiving telegram from the bus is more than the upper threshold value, the switch will be activated according to the below options (ON or OFF or no action)

Options: **Unchange**
 ON
 OFF

Unchange: The channel switch position is set to unchange.

ON: The channel switch position is set to ON.

OFF: The channel switch position is set to OFF

- **Change threshold 1 via bus**

Options: **Disable**
 Enable

Disable: Do not allow changing the threshold 1 value via the bus.

Enable: Allow changing the threshold 1 value via the bus.

- **Change threshold 2 via bus**

Options: **Disable**
 Enable

Disable: Do not allow changing the threshold 2 value via the bus.



Enable: Allow changing the threshold 2 value via the bus.

- **A: "Heating" function**

1.1.1 CU-DIN DRY 4-Z KNX > A:heating		
General	Brightness value for switch ON of heating	100%(255)
Channel A	Fade time for switch ON of heating(0..255s)	1
A>Dimming config	Fade time for switch OFF of heating(0..255s)	1
A>Dry detection	PWM cycle time setbase	<input checked="" type="radio"/> 1min <input type="radio"/> 1hour
A:function	-Factor[1..255]->time=base*factor	1
A:staircase light	Control telegram is received as	<input checked="" type="radio"/> 1bit pwm("ON"-start,"OFF"-stop) <input type="radio"/> 1byte("255"-ON,"0"-OFF,other valve)
A:flashing	-The scale of ON	50%(128)
A:scene	Running automatically after bus voltage recovery	No
A:threshold		
A:heating		
Channel B	Monitoring temperature	<input checked="" type="radio"/> No <input type="radio"/> Yes
B>Dimming config	Forced position of PWM	<input checked="" type="radio"/> No <input type="radio"/> Yes
Channel C		

Fig 30.5: "Heating" parameter window

- **Brightness value for switching heating ON**

Configures the brightness for switching ON

- **Fade time for switching heating ON (0-255 s)**

Configures the time for switching ON

- **Fade time for switching heating OFF (0-255 s)**

Configures the time for switching OFF

PWM cycle time set: base

Options: **1 sec, 1 min, 1 hour**

- Factor(1-255)->time=base*factor

These two parameters set the PWM cycle time of repeat dry contact operation; the time is base*factor.

- **Control telegram**

Type of control can be 1 bit or 1 byte.

Options: **1 bit PWM (1-start/0-stop)**

1 byte (255-switch ON/0-switch OFF/other valve)



1 bit PWM (1-start/0-stop): The PWM is switched ON by receiving telegram value "1", and stopped with "0".

1 byte (255 - ON/0 - OFF/other value): Switching ON is always when telegram value "255" is received, then switches OFF when "0" is received. The PWM runs and the PWM pulse width is set according to the telegram value received (1 to 254).

- **The scale of ON**

This parameter sets the value of the PWM (pulse width).

Options: **0%(OFF)**
 10% (26)
 20% (51)
 30% (77)
 40% (102)
 50% (128)
 60% (153)
 70% (179)
 80% (204)
 90% (230)
 100% (ON)

- **Running automatically following bus voltage recovery**

The PWM runs automatically when set to YES. The PWM runs manually when set to NO.

Options: **NO**
 YES

YES: PWM runs automatically at power on.

NO: PWM runs manually.

- **Monitoring temperature**

The temperature is monitored by setting to YES. The temperature is not monitored when set to NO.

Options: **NO**
 YES



Monitoring temperature	<input type="radio"/> No <input checked="" type="radio"/> Yes
-Monitor cycles(1..255min)	5
-Get temperature from(If local,input select temperature detection)	<input checked="" type="radio"/> Local <input type="radio"/> Bus
->Temperature >= Threshold1(-30C..+50C)	30
->Temperature <= Threshold2(-30C..+50C)	20
-Temperature threshold1 operation	OFF and stop PWM
-Temperature threshold1 alarm	<input checked="" type="radio"/> No <input type="radio"/> Yes
-Temperature threshold2 operation	ON and start PWM
-Temperature threshold2 alarm	<input checked="" type="radio"/> No <input type="radio"/> Yes

- **Forced position of PWM**

Options: **NO**
 YES

6 Communication objects description

This section introduces the communication objects. The objects are shown by enabling the function.

6.1 Sensor controller

6.1.1 "General" objects and enabling input A

Number	Name	Object Function	D...	G...	Length	C	R	W	T	U	Data Type	Priority
0	General	Heartbeat telegram			1 bit	C	-	-	T	-		Low
10	Input A	'1'-Enable/'0'-Disable			1 bit	C	-	W	-	-		Low

No.	Object name	Function	Flags	Data type
0	General	Heartbeat telegram	C T	DPT 1.003 1 bit



This communication object is always active and valid. Invert the telegram value sent to the bus in the next frame, e.g. the last telegram value is "1", the next telegram value is "0".

10	Input A	1-Enable/0-Disable	C W	DPT 1.003 1 bit
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This communication object sets whether input A is enabled. When the received telegram value is 1, the input function is enabled. When the received telegram value is "0", the function is disabled.

6.1.2 Dry contact sensor

NOTE: Input A has 12 types of functions and dry contact has two work types. This manual takes Electronic switch as an example.

- "Switch controller" objects

Number	Name	Object Function	D...	G...	Length	C	R	W	T	U	Data Type	Priority
0	General	Heartbeat telegram			1 bit	C	-	-	T	-		Low
10	Input A	'1'-Enable/'0'-Disable			1 bit	C	-	W	-	-		Low
11	Input A (short)	Switching			1 bit	C	-	W	T	U		Low
12	Input A (long)	Switching			1 bit	C	-	W	T	U		Low

No.	Object name	Function	Flags	Data type
11	Input A (short)	Switching	C W T U	DPT 1.001 1 bit
12	Input A (long)	Switching	C W T U	DPT 1.001 1 bit

These communication objects are used for switch control. When dry contact A is operated, a value is sent to the BUS and controls the switch.

- "Switch/Dimming controller" objects

Number	Name	Object Function	D...	G...	Length	C	R	W	T	U	Data Type	Priority
0	General	Heartbeat telegram			1 bit	C	-	-	T	-		Low
10	Input A	'1'-Enable/'0'-Disable			1 bit	C	-	W	-	-		Low
11	Input A (short)	Switching			1 bit	C	-	W	T	U		Low
12	Input A (long)	Dimming			4 bit	C	-	-	T	-		Low

No.	Object name	Function	Flags	Data type
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11	Input A (short)	Switching	C W T U	DPT 1.001 1 bit
12	Input A (long)	Dimming	C T	DPT 3.007 4 bit

These communication objects are used for switch control and relative dimming control. When dry contact A is operated, a value is sent to the BUS and controls the switch and relative dimming.

- "Shutter controller" objects

Number	Name	Object Function	D...	G..	Length	C	R	W	T	U	Data Type	Priority
0	General	Heartbeat telegram			1 bit	C	-	-	T	-		Low
10	Input A	'1'-Enable/'0'-Disable			1 bit	C	-	W	-	-		Low
11	Input A (short)	Adjust for shutter (Inc)			1 bit	C	-	W	T	U		Low
12	Input A (long)	Move for shutter (Toggle)			1 bit	C	-	W	T	U		Low

No.	Object name	Function	Flags	Data type
11	Input A (short)	Adjust for shutter (inc)	C W T U	DPT 1.007 1 bit
12	Input A (long)	Move for shutter (toggle)	C W T U	DPT 1.007 1 bit

These communication objects are used for shutter control. When the dry contact is closed or opened, a value is sent to the BUS and controls the shutter.

- "Flexible controller" objects

Number	Name	Object Function	D...	G..	Length	C	R	W	T	U	Data Type	Priority
0	General	Heartbeat telegram			1 bit	C	-	-	T	-		Low
10	Input A	'1'-Enable/'0'-Disable			1 bit	C	-	W	-	-		Low
11	Input A	Flexible			1 bit	C	-	W	T	U		Low

No.	Object name	Function	Flags	Data type
11	Input A	Flexible	C W T U	DPT 1.001 1 bit

This communication object is used for flexible control. When controlled the dry contact sends the value "1" or "0" to the BUS.



- "Scene controller" objects

Number	Name	Object Function	D...	G..	Length	C	R	W	T	U	Data Type	Priority
0	General	Heartbeat telegram			1 bit	C	-	-	T	-		Low
10	Input A	'1'-Enable/'0'-Disable			1 bit	C	-	W	-	-		Low
11	Input A (short)	Call scene			1 Byte	C	-	W	T	U		Low
12	Input A (long)	Scene dimming			4 bit	C	-	-	T	-		Low

No.	Object name	Function	Flags	Data type
11	Input A (short)	Call scene	C W T U	DPT 18.001 1 byte
12	Input A (long)	Scene dimming	C T	DPT 3.007 4 bit

This communication object is used for scene control. When short or long operation is used the dry contact calls the scene or the scene is dimmed.

- "Sequence controller" objects

Number	Name	Object Function	D...	G..	Length	C	R	W	T	U	Data Type	Priority
0	General	Heartbeat telegram			1 bit	C	-	-	T	-		Low
10	Input A	'1'-Enable/'0'-Disable			1 bit	C	-	W	-	-		Low
11	Input A (short)	Sequence			1 bit	C	-	W	T	U		Low
12	Input A (long)	Sequence			1 bit	C	-	W	T	U		Low

No.	Object name	Function	Flags	Data type
11	Input A (short)	Sequence	C W T U	DPT 1.010 1 bit
12	Input A (long)	Sequence		

This communication object is used for sequence control. When short or long operation of the dry contact is used, a value is sent to the BUS and controls the sequence.

- "Percentage controller" objects

Number	Name	Object Function	D...	G..	Length	C	R	W	T	U	Data Type	Priority
0	General	Heartbeat telegram			1 bit	C	-	-	T	-		Low
10	Input A	'1'-Enable/'0'-Disable			1 bit	C	-	W	-	-		Low
11	Input A (short)	Percentage			1 Byte	C	-	W	T	U		Low
12	Input A (long)	Percentage			1 Byte	C	-	W	T	U		Low

No.	Object name	Function	Flags	Data type
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11	Input A (short)	Percentage	C W T U	DPT 5.001 1 byte
12	Input A (long)	Percentage		

This communication object is used for percentage control. When short or long operation of the dry contact is used, a value is sent to the BUS.

- **"Threshold controller" objects**

Number	Name	Object Function	D...	G...	Length	C	R	W	T	U	Data Type	Priorit
0	General	Heartbeat telegram			1 bit	C	-	-	T	-		Low
10	Input A	'1'-Enable/'0'-Disable			1 bit	C	-	W	-	-		Low
11	Input A (short)	Threshold(1byte)			1 Byte	C	-	W	T	U		Low
12	Input A (long)	Threshold(1byte)			1 Byte	C	-	W	T	U		Low

No.	Object name	Function	Flags	Data type
11	Input A (short)	Threshold (1 byte)	C W T U	DPT 5.004 1 byte
12	Input A (long)	Threshold (1 byte)	C W T U	DPT 7.001 1 byte

This communication object is used for threshold control. When short or long operation of the dry contact is used, a value is sent to the BUS according to the "threshold" settings.

- **"String (14 bytes) controller" objects**

Number	Name	Object Function	D...	G...	Length	C	R	W	T	U	Data Type	Priorit
0	General	Heartbeat telegram			1 bit	C	-	-	T	-		Low
10	Input A	'1'-Enable/'0'-Disable			1 bit	C	-	W	-	-		Low
11	Input A (short)	String(14bytes) value			14 Byte	C	-	-	T	-		Low
12	Input A (long)	String(14bytes) value			14 Byte	C	-	-	T	-		Low

No.	Object name	Function	Flags	Data type
11	Input A (short)	String (14 bytes) value	C T	DPT 16.000 14 bytes
12	Input A (long)	String (14 bytes) value	C T	DPT 16.000 14 bytes



This communication object is used for string control. When short or long operation of the dry contact is used, a value is sent to the BUS.

- **"Forced position controller" objects**

Number	Name	Object Function	D...	Group Add...	Length	C	R	W	T	U	Data Type	Pri
0	General	Heartbeat telegram		1/2/3	1 bit	C	-	-	T	-	1 bit DPT_Enable	Low
10	Input A	Disable/Enable			1 bit	C	-	W	-	-	1 bit DPT_Enable	Low
11	Input A (closed)	Forced value (temperature)			2 Byte	C	-	W	T	U	2 byte float v...	Low
12	Input A (opened)	Forced value (0..255)			1 Byte	C	-	W	T	U		Low

No.	Object name	Function	Flags	Data type
11	Input A (short)	Forced value (temperature)	C W T U	DPT 5.004 2 bytes
12	Input A (long)	Forced value (0-255)	C W T U	DPT 7.001 1 byte

This communication object is used for forced value control. When short or long operation of the dry contact is used, a value is sent to the BUS according to "forced position" settings.

- **"Counter controller" objects**

Number	Name	Object Function	D...	G...	Length	C	R	W	T	U	Data Type	Priori
0	General	Heartbeat telegram			1 bit	C	-	-	T	-		Low
10	Input A	'1'-Enable/'0'-Disable			1 bit	C	-	W	-	-		Low
11	Input A	Counter (0..255)			1 Byte	C	-	W	T	U		Low
12	Input A	Set counter end (0..255)			1 Byte	C	-	W	-	U		Low
13	Input A	Set counter (0..255)			1 Byte	C	-	W	-	U		Low

No.	Object name	Function	Flags	Data type
11	Input A	Counter (0-255)	C W T U	DPT 5.004 1 byte
12	Input A	Set counter end (0-255)	C W U	DPT 5.004 1 byte
13	Input A	Set counter (0-255)	C W U	DPT 5.004 1 byte

This communication object is used for sending the pulse counter.



- "Combination controller" objects

Number	Name	Object Function	D...	Grou...	Length	C	R	W	T	U	Data Type	Priority
10	Input A	Disable/Enable			1 bit	C	-	W	-	-	1 bit DPT_Enable	Low
11	General	Heartbeat telegram		1/2/3	1 bit	C	-	-	T	-	1 bit DPT_Enable	Low
12	Input A (closed)	COMB OBJ1 switching			1 bit	C	-	-	T	-	1 bit DPT_Switch	Low
13	Input A (closed)	COMB OBJ2 shutter			1 bit	C	-	-	T	-	1 bit DPT_UpDown	Low
14	Input A (closed)	COMB OBJ3 scene			1 Byte	C	-	-	T	-		Low
15	Input A (closed)	COMB OBJ4 sequence			1 bit	C	-	-	T	-	1 bit DPT_Start	Low
16	Input A (closed)	COMB OBJ5 percentage			1 Byte	C	-	-	T	-	8 bit unsigned...	Low
17	Input A (closed)	COMB OBJ6 threshol...			1 Byte	C	-	-	T	-		Low
18	Input A (closed)	COMB OBJ7 String(1...			14 Byte	C	-	-	T	-	Character string	Low
19	Input A (closed)	COMB OBJ8 switching			1 bit	C	-	-	T	-	1 bit DPT_Switch	Low
20	Input A (closed)	COMB OBJ9 switching			1 bit	C	-	-	T	-	1 bit DPT_Switch	Low
21	Input A (closed)	COMB OBJ10 switching			1 bit	C	-	-	T	-	1 bit DPT_Switch	Low
22	Input A (opened)	COMB OBJ1 switching			1 bit	C	-	-	T	-	1 bit DPT_Switch	Low
23	Input A (opened)	COMB OBJ2 switching			1 bit	C	-	-	T	-	1 bit DPT_Switch	Low
24	Input A (opened)	COMB OBJ3 switching			1 bit	C	-	-	T	-	1 bit DPT_Switch	Low
25	Input A (opened)	COMB OBJ4 switching			1 bit	C	-	-	T	-	1 bit DPT_Switch	Low
26	Input A (opened)	COMB OBJ5 switching			1 bit	C	-	-	T	-	1 bit DPT_Switch	Low
27	Input A (opened)	COMB OBJ6 switching			1 bit	C	-	-	T	-	1 bit DPT_Switch	Low
28	Input A (opened)	COMB OBJ7 switching			1 bit	C	-	-	T	-	1 bit DPT_Switch	Low
29	Input A (opened)	COMB OBJ8 switching			1 bit	C	-	-	T	-	1 bit DPT_Switch	Low
30	Input A (opened)	COMB OBJ9 switching			1 bit	C	-	-	T	-	1 bit DPT_Switch	Low
31	Input A (opened)	COMB OBJ10 switching			1 bit	C	-	-	T	-	1 bit DPT_Switch	Low

No.	Object name	Function	Flags	Data type
11	Input A (short)	COMB OBJ 1 switching	C T	DPT 1.001 1 bit
...		COMB OBJ 1 shutter	C T	DPT 1.008 1 bit
20		COMB OBJ 1 scene	C T	DPT 18.001 1 byte
		COMB OBJ 1 sequence	C T	DPT 1.010 1 bit
		COMB OBJ 1 percentage	C T	DPT 5.001 1 byte
		COMB OBJ 1 Threshold (0-255)	C T	DPT 5.004 1 byte
		COMB OBJ 1 Threshold (0-65535)	C T	DPT 7.001 2 byte
		COMB OBJ 1 String (14 bytes)	C T	DPT 16.000 14 byte



These communication objects are used for combination control. They include the switch, shutter, scene, sequence, percentage, threshold and string (14 bytes) controller. When short operation of the dry contact is used, a value is sent to the BUS and other devices are controlled.

21 ... 30	Input A (long)	COMB OBJ 1 switching	C T	DPT 1.001 1 bit
		COMB OBJ 1 shutter	C T	DPT 1.008 1 bit
		COMB OBJ 1 scene	C T	DPT 18.001 1 byte
		COMB OBJ 1 sequence	C T	DPT 1.010 1 bit
		COMB OBJ 1 percentage		DPT 5.001 1 byte
		COMB OBJ 1 Threshold (0-255)	C T	DPT 5.004 1 byte
		COMB OBJ 1 Threshold (0-65535)	C T	DPT 7.001 2 bytes
		COMB OBJ 1 String (14 bytes)	C T	DPT 16.000 14 bytes

These communication objects are used for combination control. They include the switch, shutter, scene, sequence, percentage, threshold and string (14 bytes) controller. When long operation of the dry contact is used, a value is sent to the BUS and other devices are controlled.



6.1.3 Temperature sensor

- "Switch controller" objects

Number	Name	Object Function	D...	Grou...	Length	C	R	W	T	U	Data Type	Priori
0	General	Heartbeat telegram		1/2/3	1 bit	C	-	-	T	-	1 bit DPT_Enable	Low
10	Input A	Temperature Report			2 Byte	C	R	-	T	-	2 byte float v...	Low
11	Input A	Switching			1 bit	C	-	W	T	U	1 bit DPT_Switch	Low
12	Input A	Change temperature threshold1			2 Byte	C	-	W	-	U	2 byte float v...	Low
13	Input A	Change temperature threshold2			2 Byte	C	-	W	-	U	2 byte float v...	Low
14	Input A	Forced switching			1 bit	C	-	W	-	U	1 bit DPT_Switch	Low

No.	Object name	Function	Flags	Data type
11	Input A	Switching	C W T U	DPT 1.001 1 bit
12	Input A	Change temperature threshold 1/2	C W U	DPT 9.001 2 bytes
13				
14	Input A	Forced switching	C W U	DPT 9.001 1 bit

These communication objects are used for switch control. When the dry contact is operated, it controls the switch or changes the temperature threshold.

- "Alarm controller" objects

Number	Name	Object Function	D...	Grou...	Length	C	R	W	T	U	Data Type	Priority
0	General	Heartbeat telegram		1/2/3	1 bit	C	-	-	T	-	1 bit DPT_Enable	Low
10	Input A	Temperature Report			2 Byte	C	R	-	T	-	2 byte float v...	Low
11	Input A	Alarm			1 bit	C	-	W	T	U		Low
12	Input A	Change temperature threshold1			2 Byte	C	-	W	-	U	2 byte float v...	Low
13	Input A	Change temperature threshold2			2 Byte	C	-	W	-	U	2 byte float v...	Low
14	Input A	Forced alarm			1 bit	C	-	W	-	U	1 bit DPT_Switch	Low

No.	Object name	Function	Flags	Data type
11	Input A	Alarm	C W T U	DPT 1.005 1 bit
12	Input A	Change temperature threshold 1/2	C W U	DPT 9.001 2 bytes
13				
14	Input A	Forced alarm	C W U	DPT 1.001 1 bit



These communication objects are used for alarm control. When the dry contact is operated, it controls the alarm or changes the temperature threshold.

- "Shutter controller" objects

Number	Name	Object Function	D...	Grou...	Length	C	R	W	T	U	Data Type	Priori
0	General	Heartbeat telegram		1/2/3	1 bit	C	-	-	T	-	1 bit DPT_Enable	Low
10	Input A	Temperature Report			2 Byte	C	R	-	T	-	2 byte float v...	Low
11	Input A	Move for shutter			1 bit	C	-	W	T	U	1 bit DPT_UpDown	Low
12	Input A	Change temperature threshold1			2 Byte	C	-	W	-	U	2 byte float v...	Low
13	Input A	Change temperature threshold2			2 Byte	C	-	W	-	U	2 byte float v...	Low
14	Input A	Forced move			1 bit	C	-	W	-	U	1 bit DPT_Switch	Low

No.	Object name	Function	Flags	Data type
11	Input A	Move for shutter	C W T U	DPT 1.008 1 bit
12	Input A	Change temperature threshold 1/2	C W U	DPT 9.001 2 bytes
13				
14	Input A	Forced move	C W U	DPT 1.001 1 bit

These communication objects are used for shutter control. When the dry contact is operated, it moves the shutter or changes the temperature threshold.

- "Scene controller" objects

Number	Name	Object Function	D...	Grou...	Length	C	R	W	T	U	Data Type	Priori
0	General	Heartbeat telegram		1/2/3	1 bit	C	-	-	T	-	1 bit DPT_Enable	Low
10	Input A	Temperature Report			2 Byte	C	R	-	T	-	2 byte float v...	Low
11	Input A	Call scene			1 Byte	C	-	W	T	U		Low
12	Input A	Change temperature threshold1			2 Byte	C	-	W	-	U	2 byte float v...	Low
13	Input A	Change temperature threshold2			2 Byte	C	-	W	-	U	2 byte float v...	Low
14	Input A	Forced scene			1 bit	C	-	W	-	U	1 bit DPT_Switch	Low

No.	Object name	Function	Flags	Data type
11	Input A	Call scene	C W T U	DPT 18.001 1 bit
12	Input A	Change temperature threshold 1/2	C W U	DPT 9.001 2 bytes
13				
14	Input A	Forced scene	C W U	DPT 1.001 1 bit



These communication objects are used for scene control. When the dry contact is operated, it calls the scene or changes the temperature threshold.

- "Sequence controller" objects

Number	Name	Object Function	D...	Grou...	Length	C	R	W	T	U	Data Type	Priori
0	General	Heartbeat telegram		1/2/3	1 bit	C	-	-	T	-	1 bit DPT_Enable	Low
10	Input A	Temperature Report			2 Byte	C	R	-	T	-	2 byte float v...	Low
11	Input A	Sequence			1 bit	C	-	W	T	U	1 bit DPT_Start	Low
12	Input A	Change temperature threshold1			2 Byte	C	-	W	-	U	2 byte float v...	Low
13	Input A	Change temperature threshold2			2 Byte	C	-	W	-	U	2 byte float v...	Low
14	Input A	Forced sequence			1 bit	C	-	W	-	U	1 bit DPT_Switch	Low

No.	Object name	Function	Flags	Data type
11	Input A	Sequence	C W T U	DPT 1.010 1 bit
12	Input A	Change temperature threshold1	C W U	DPT 9.001 2 bytes
13	Input A	Change temperature threshold2	C W U	DPT 9.001 2 bytes
14	Input A	Forced sequence	C W U	DPT 1.001 1 bit

These communication objects are used for sequence control. When the dry contact is operated, it controls the sequence or changes the temperature threshold.

- "Percentage controller" objects

Number	Name	Object Function	D...	Grou...	Length	C	R	W	T	U	Data Type	Priori
0	General	Heartbeat telegram		1/2/3	1 bit	C	-	-	T	-	1 bit DPT_Enable	Low
10	Input A	Temperature Report			2 Byte	C	R	-	T	-	2 byte float v...	Low
11	Input A	Percentage			1 Byte	C	-	W	T	U	8 bit unsigned...	Low
12	Input A	Change temperature threshold1			2 Byte	C	-	W	-	U	2 byte float v...	Low
13	Input A	Change temperature threshold2			2 Byte	C	-	W	-	U	2 byte float v...	Low
14	Input A	Forced percentage			1 bit	C	-	W	-	U	1 bit DPT_Switch	Low

No.	Object name	Function	Flags	Data type
11	Input A	Percentage	C W T U	DPT 5.001 1 byte
12	Input A	Change temperature threshold1	C W U	DPT 9.001 2 bytes
13	Input A	Change temperature threshold2	C W U	DPT 9.001 2 bytes



14	Input A	Forced percentage	C W U	DPT 1.001 1 bit
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These communication objects are used for percentage control. When the dry contact is operated, it controls following the percentage or changes the temperature threshold.

- "Threshold controller" objects

Number	Name	Object Function	D...	Grou...	Length	C	R	W	T	U	Data Type	Priority
0	General	Heartbeat telegram		1/2/3	1 bit	C	-	-	T	-	1 bit DPT_Enable	Low
10	Input A	Temperature Report			2 Byte	C	R	-	T	-	2 byte float v...	Low
11	Input A...	Threshold value(1byte)			1 Byte	C	-	W	T	U	Low	Low
12	Input A	Change temperature threshold1			2 Byte	C	-	W	-	U	2 byte float v...	Low
13	Input A	Change temperature threshold2			2 Byte	C	-	W	-	U	2 byte float v...	Low
14	Input A	Forced threshold value			1 bit	C	-	W	-	U	1 bit DPT_Switch	Low

No.	Object name	Function	Flags	Data type
11	Input A	Threshold value (1 byte)	C W T U	DPT 5.001 1 byte
12	Input A	Change temperature threshold 1/2	C W U	DPT 9.001 2 bytes
13				
14	Input A	Forced threshold value	C W U	DPT 1.001 1 bit

These communication objects are used for threshold value control. When the dry contact is operated, it controls the threshold or changes the temperature threshold.

- "String (14 bytes) controller" objects

Number	Name	Object Function	D...	Grou...	Length	C	R	W	T	U	Data Type	Priority
0	General	Heartbeat telegram		1/2/3	1 bit	C	-	-	T	-	1 bit DPT_Enable	Low
10	Input A	Temperature Report			2 Byte	C	R	-	T	-	2 byte Float v...	Low
11	Input A	String(14bytes) value			14 Byte	C	-	-	T	-	Character stri...	Low
12	Input A	Change temperature threshold1			2 Byte	C	-	W	-	U	2 byte Float v...	Low
13	Input A	Change temperature threshold2			2 Byte	C	-	W	-	U	2 byte Float v...	Low
14	Input A	Forced string			1 bit	C	-	W	-	U	1 bit DPT_Switch	Low

No.	Object name	Function	Flags	Data type
11	Input A	String (14 bytes) value	C W T U	DPT 16.000 1 byte



12	Input A	Change temperature threshold 1/2	C W U	DPT 9.001 2 bytes
13				
14	Input A	Forced string	C W U	DPT 1.001 1 bit

These communication objects are used for string control. When the dry contact is operated, it controls the string or changes the temperature threshold.

- **"Forced position controller" objects**

Number	Name	Object Function	D...	Grou...	Length	C	R	W	T	U	Data Type	Priority
0	General	Heartbeat telegram		1/2/3	1 bit	C	-	-	T	-	1 bit DPT_Enable	Low
10	Input A	Temperature Report			2 Byte	C	R	-	T	-	2 byte float v...	Low
11	Input A...	Forced value (2bits)			2 bit	C	-	W	T	U	1 bit controll...	Low
12	Input A...	Forced value (2bits)			2 bit	C	-	W	T	U	1 bit controll...	Low
13	Input A	Change temperature threshold1			2 Byte	C	-	W	-	U	2 byte float v...	Low
14	Input A	Change temperature threshold2			2 Byte	C	-	W	-	U	2 byte float v...	Low

No.	Object name	Function	Flags	Data type
11	Input A (in range/TEMP THR 1)/ (out	Forced value (2 bits)	C W U	DPT 2.001 2 bit
12	(In range/TEMP THR 1)			
13	Input A	Change temperature threshold1	C W U	DPT 1.001 1 bit
14		Change temperature threshold 1/2		

These communication objects are used for scene control. When the dry contact is operated, it calls the scene or changes the temperature threshold.



• "Combination controller" objects

Number	Name	Object Function	D...	Length	C	R	W	T	U	Data Type	Pri
0	General	Heartbeat telegram		1 bit	C	-	-	T	-	1 bit DPT_Enable	Low
10	Input A	Temperature Report		2 Byte	C	R	-	T	-	2 byte float v...	Low
11	Input A	Change temperature thres...		2 Byte	C	-	W	-	U	2 byte float v...	Low
12	Input A	Change temperature thres...		2 Byte	C	-	W	-	U	2 byte float v...	Low
13	Input A (in range/TEMP THR1)	COMB OBJ1 switching		1 bit	C	-	-	T	-	1 bit DPT_Switch	Low
14	Input A (in range/TEMP THR1)	COMB OBJ2 alarm		1 bit	C	-	-	T	-		Low
15	Input A (in range/TEMP THR1)	COMB OBJ3 switching		1 bit	C	-	-	T	-	1 bit DPT_Switch	Low
16	Input A (in range/TEMP THR1)	COMB OBJ4 scene		1 Byte	C	-	-	T	-		Low
17	Input A (in range/TEMP THR1)	COMB OBJ5 sequence		1 bit	C	-	-	T	-	1 bit DPT_Start	Low
18	Input A (in range/TEMP THR1)	COMB OBJ6 threshold(0..255)		1 Byte	C	-	-	T	-		Low
19	Input A (in range/TEMP THR1)	COMB OBJ7 String(14bytes)		14 Byte	C	-	-	T	-	Character string	Low
20	Input A (in range/TEMP THR1)	COMB OBJ8 shutter		1 bit	C	-	-	T	-	1 bit DPT_UpDown	Low
21	Input A (in range/TEMP THR1)	COMB OBJ9 switching		1 bit	C	-	-	T	-	1 bit DPT_Switch	Low
22	Input A (in range/TEMP THR1)	COMB OBJ10 scene		1 Byte	C	-	-	T	-		Low
23	Input A (out range/TEMP THR2)	COMB OBJ1 switching		1 bit	C	-	-	T	-	1 bit DPT_Switch	Low
24	Input A (out range/TEMP THR2)	COMB OBJ2 alarm		1 bit	C	-	-	T	-		Low
25	Input A (out range/TEMP THR2)	COMB OBJ3 shutter		1 bit	C	-	-	T	-	1 bit DPT_UpDown	Low
26	Input A (out range/TEMP THR2)	COMB OBJ4 scene		1 Byte	C	-	-	T	-		Low
27	Input A (out range/TEMP THR2)	COMB OBJ5 sequence		1 bit	C	-	-	T	-	1 bit DPT_Start	Low
28	Input A (out range/TEMP THR2)	COMB OBJ6 sequence		1 bit	C	-	-	T	-	1 bit DPT_Start	Low
29	Input A (out range/TEMP THR2)	COMB OBJ7 percentage		1 Byte	C	-	-	T	-	8 bit unsigned...	Low
30	Input A (out range/TEMP THR2)	COMB OBJ8 threshold(0..255)		1 Byte	C	-	-	T	-		Low
31	Input A (out range/TEMP THR2)	COMB OBJ9 String(14bytes)		14 Byte	C	-	-	T	-	Character stri...	Low
32	Input A (out range/TEMP THR2)	COMB OBJ10 switching		1 bit	C	-	-	T	-	1 bit DPT_Switch	Low

No.	Object name	Function	Flags	Data type
11	Input A	Change temperature thres.	C W U	DPT 9.001 2 byte
12		1/2		
13	Input A (in range/TEMP THR 1)	COMB OBJ 1 switching	C T	DPT 1.001 1 bit
...				
22		COMB OBJ 1 alarm	C T	DPT 1.005 1 bit
		COMB OBJ 1 shutter	C T	DPT 1.008 1 bit
		COMB OBJ 1 scene	C T	DPT 18.001 1 byte
		COMB OBJ 1 sequence	C T	DPT 1.010 1 bit
		COMB OBJ 1 percentage	C T	DPT 5.001 1 byte



		COMB OBJ 1 Threshold (0-255)	C T	DPT 5.004 1 byte
		COMB OBJ 1 Threshold (0- 65535)	C T	DPT 7.001 2 byte
		COMB OBJ 1 String (14 bytes)	C T	DPT 16.000 14 bytes

These communication objects area used for combination control. They include the switch, shutter, scene, sequence, percentage, threshold and string (14 bytes) controller. When the dry contact is operated, a value is sent to the BUS and other devices are controlled.

21 ... 30	Input A (out range/TEMP THR 2)	COMB OBJ 1 switching	C T	DPT 1.001 1 bit
		COMB OBJ 1 alarm	C T	DPT 1.005 1 bit
		COMB OBJ 1 shutter	C T	DPT 1.008 1 bit
		COMB OBJ 1 scene	C T	DPT 18.001 1 byte
		COMB OBJ 1 sequence	C T	DPT 1.010 1 bit
		COMB OBJ 1 percentage	C T	DPT 5.001 1 byte
		COMB OBJ 1 Threshold (0-255)	C T	DPT 5.004 1 byte
		COMB OBJ 1 Threshold (0- 65535)	C T	DPT 7.001 2 bytes



These communication objects are used for combination control. They include the switch, shutter, scene, sequence, percentage, threshold and string (14 bytes) controller. When the dry contact is operated, a value is sent to the BUS and other devices are controlled.

6.2 Logic controller

6.2.1 Logic function A and block A

Number	Name	Object Function	D..	Length	C	R	W	T	U	Data Type	Pri
10	General	Heartbeat telegram		1 bit	C	-	-	T	-	1 bit DPT_Enable	Low
11	Logic A	Dry contact status report		1 bit	C	R	-	T	-	1 bit DPT_Bool	Low
12	Logic A	Extern telegram <1> (4bytes)		4 Byte	C	-	W	-	U	4 byte unsigne...	Low
13	Logic A	Extern telegram <2> (1byte)		1 Byte	C	-	W	-	U		Low
14	Logic A	Extern telegram <3> (1bit)		1 bit	C	-	W	-	U	1 bit DPT_Switch	Low
15	Logic A	Extern telegram <4> (1bit)		1 bit	C	-	W	-	U	1 bit DPT_Switch	Low
16	Logic A:1	Switching		1 bit	C	-	W	T	U	1 bit DPT_Switch	Low
17	Logic A:2	Alarm		1 bit	C	-	W	T	U		Low
18	Logic A:3	Shutter		1 bit	C	-	W	T	U	1 bit DPT_UpDown	Low
19	Logic A:4	Shutter		1 bit	C	-	W	T	U	1 bit DPT_UpDown	Low
20	Logic A:5	Scene		1 Byte	C	-	W	T	U		Low
21	Logic A:6	Sequence		1 bit	C	-	W	T	U	1 bit DPT_Start	Low
22	Logic A:7	Sequence		1 bit	C	-	W	T	U	1 bit DPT_Start	Low
23	Logic A:8	Percentage (0%..100%)		1 Byte	C	-	W	T	U	8 bit unsigned...	Low
24	Logic A:9	Threshold(0..255)		1 Byte	C	-	W	T	U		Low
25	Logic A:10	String(14bytes)		14 Byte	C	-	-	T	-	Character string	Low
136	Logic E:1	Switching		1 bit	C	-	W	T	U	1 bit DPT_Switch	Low

No.	Object name	Function	Flags	Data type
10	Logic A	Dry contact status report	C R T	DPT 1.002 1 bit

This communication object is used for the dry contact status report. When the dry contact is operated, the status is sent to the KNX/EIB bus.

11	Logic A	External telegram<1>	C W U	DPT 9.001
...				2 byte
15		- External telegram<5>		

These communication objects are logic conditions. These conditions are sent from the KNX/EIB bus, for example panels or other devices. There are 5 external telegrams.



16 ... 25	Logic A:1	Switch controller	C W T U	DPT 1.001 1 bit
	... Logic A:10	Alarm controller	C W T U	DPT 1.005 1 bit
		Shutter controller	C W T U	DPT 1.008 1 bit
		Scene controller	C W T U	DPT 18.001 1 byte
		Sequence controller	C W T U	DPT 1.010 1 bit
		Percentage (0%-100%)	C W T U	DPT 5.001 1 byte
		Threshold (0-255)	C W T U	DPT 5.004 1 byte
		String (14 bytes)	C W T U	DPT 7.001 2 bytes

When logic A is chosen, it controls these objects. Logic A 1 to logic A 10 contain switch, alarm, shutter, scene, sequence, percentage, string (14 bytes). Logic B, logic C and logic D are the same as logic A.

136	Logic E:1	Switch	C W T U	DPT 1.001 1 bit
		Alarm	C W T U	DPT 1.005 1 bit
		Shutter	C W T U	DPT 1.008 1 bit
		Scene	C W T U	DPT 18.001 1 byte



		Sequence	C W T U	DPT 1.010 1 bit
		Percentage (0%-100%)	C W T U	DPT 5.001 1 byte
		Threshold (0-255)	C W T U	DPT 5.004 1 byte
		Threshold (0-65535)	C W T U	DPT 7.001 1 byte
		String (14 bytes)	C W T U	DPT 16.000 14 bytes

Logic E's status is controlled by logic A, logic B, logic C and logic D's output.

6.3 Dimming controller

6.3.1 "Flashing" objects

Number	Name	Object Function	D.	Length	C	R	W	T	U	Data Type	Priority
20	General	Heartbeat telegram		1 bit	C	-	-	T	-	1 bit DPT_Enable	Low
25	General	Sequence 1		1 bit	C	-	W	-	U	1 bit DPT_Start	Low
26	General	Sequence 2		1 bit	C	-	W	-	U	1 bit DPT_Start	Low
27	General	Sequence 3		1 bit	C	-	W	-	U	1 bit DPT_Start	Low
28	General	Sequence 4		1 bit	C	-	W	-	U	1 bit DPT_Start	Low
29	General	Sequence 5		1 bit	C	-	W	-	U	1 bit DPT_Start	Low

No.	Object name	Function	Flags	Data type
5	General	Sequence 1	C W U	DPT 1.010 1 bit
...		...		
9		Sequence 5		

These communication objects implement sequence control. The sequence is controlled when the value is received by other devices via the KNX/EIB Bus.



6.3.2 "Output A" objects

Number	Name	Object Function	D..	Length	C	R	W	T	U	Data Type	Prior
10	General	Heartbeat telegram		1 bit	C	-	-	T	-	1 bit DPT_Enable	Low
10	Output A	Channel output		1 bit	C	-	W	-	U	1 bit DPT_Switch	Low
13	Output A	Response status (1bit)		1 bit	C	R	-	T	-	1 bit DPT_Switch	Low
14	Output A	Response status (1byte)		1 Byte	C	R	-	T	-	8 bit unsigned...	Low
15	Output A	SYNC control relay		1 bit	C	-	-	T	-	1 bit DPT_Switch	Low
17	Output A	R/W total ON time		2 Byte	C	R	W	T	U		Low
18	Output A	Alarm when total ON time out		1 bit	C	R	-	T	-		Low
19	Output A	Staircase light		1 bit	C	-	W	-	U	1 bit DPT_Switch	Low
20	Output A	Change staircase light factor		1 Byte	C	-	W	-	U		Low
21	Output A	Alarm staircase light		1 bit	C	R	-	T	-		Low
22	Output A	Flashing		1 bit	C	-	W	-	U	1 bit DPT_Switch	Low
23	Output A	Scene (8bit)		1 Byte	C	-	W	-	U		Low
24	Output A	Scene dimming (4bit)		4 bit	C	-	W	-	U	3 bit controll...	Low
25	Output A	Threshold input		1 Byte	C	-	W	-	U		Low
26	Output A	Change threshold 1		1 Byte	C	-	W	-	U		Low
27	Output A	Change threshold 2		1 Byte	C	-	W	-	U		Low
28	Output A (PWM)	Heat with 1bit control		1 bit	C	-	W	-	U	1 bit DPT_Switch	Low
31	Output A (PWM)	TEMP threshold2 alarm		1 bit	C	R	-	T	-		Low
32	Output A (PWM)	Forced position		1 bit	C	-	W	-	U	1 bit DPT_Switch	Low

No.	Object ame	Function	Flags	Data type
10	Output A	Output channel	C W U	DPT 1.001 1 bit

This communication object implements channel output A control. Output A is controlled when the value is received by other devices via the KNX/EIB Bus.

13	Output A	Response status (1 bit)	C R T	DPT 1.001 1 bit
...		Response status (1 byte)	C R T	DPT 5.001 1 byte
27		SYNC control relay	C T	DPT 1.001 1 bit
		Temperature report	C R T	DPT 9.001 2 bytes
		R/W total ON time	C R W T U	DPT 7.007 1 bit
		Alarm when total ON time out	C R T	DPT 1.005 1 bit



		Staircase light	C W U	DPT 1.001 1 bit
		Change staircase light factor	C W U	DPT 5.004 1 byte
		Alarm staircase light	C R T	DPT 1.005 1 bit
		Flashing	C W U	DPT 1.001 1 bit
		Scene (8 bit)	C W U	DPT 18.001 1 byte
		Scene dimming (4 bit)	C W U	DPT 3.007 4 bit
		Threshold input	C W U	DPT 5.004 1 byte
		Change threshold 1	C W U	DPT 5.004 1 byte
		Change threshold 1	C W U	DPT 5.004 1 byte

This communication object implements channel output A function control. Output A is controlled when the value is received by other devices via the KNX/EIB Bus.

28 ... 32	Output A (PWM)	Heat with 1 bit control	C W U	DPT 1.001 1 bit
		TEMP threshold 2 alarm	C R T	DPT 1.005 1 bit
		Forced position	C W U	DPT 1.001 1 bit

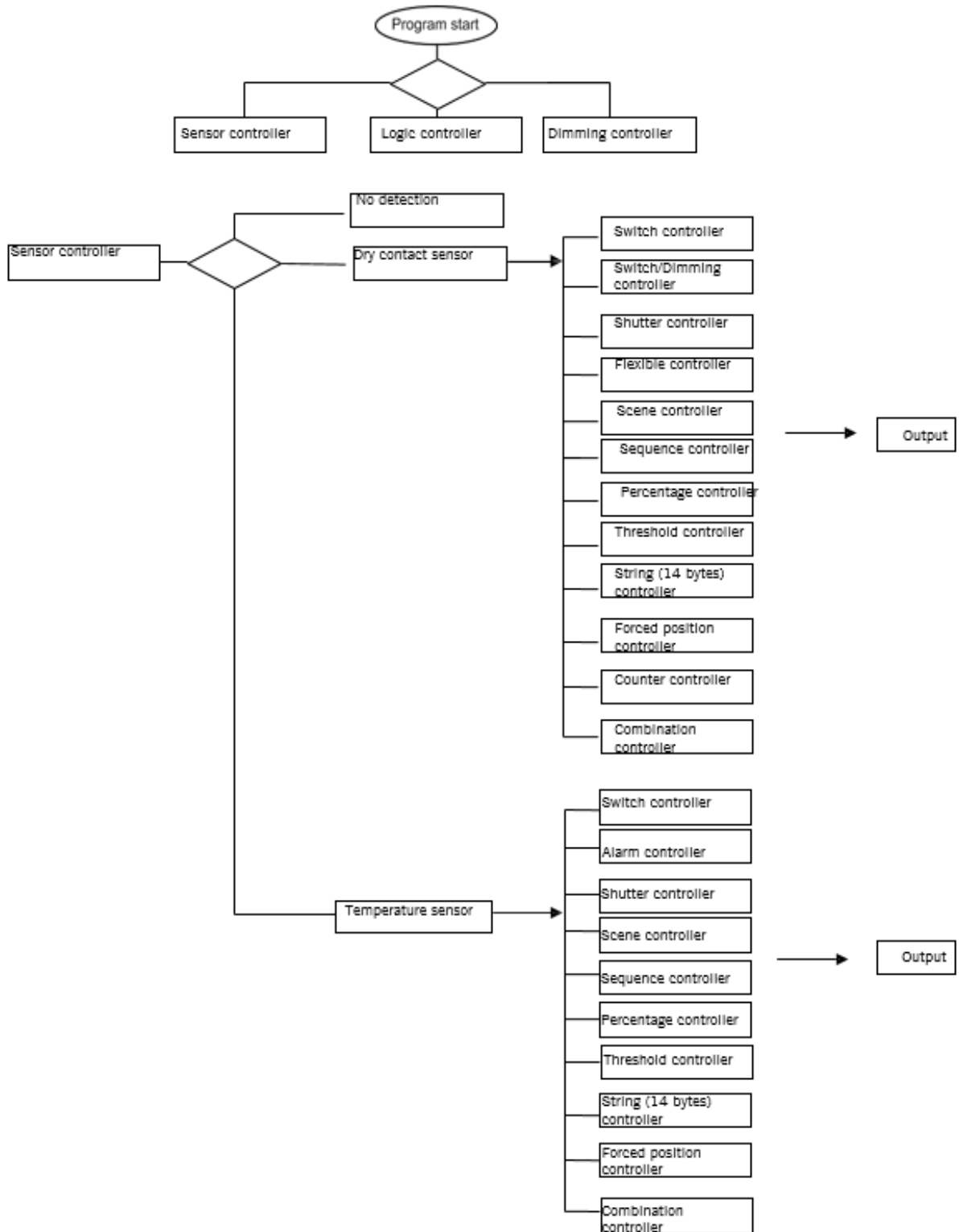
These communication objects are used for combination control.

NOTE: The settings for outputs B, C and D are all the same as for output A.



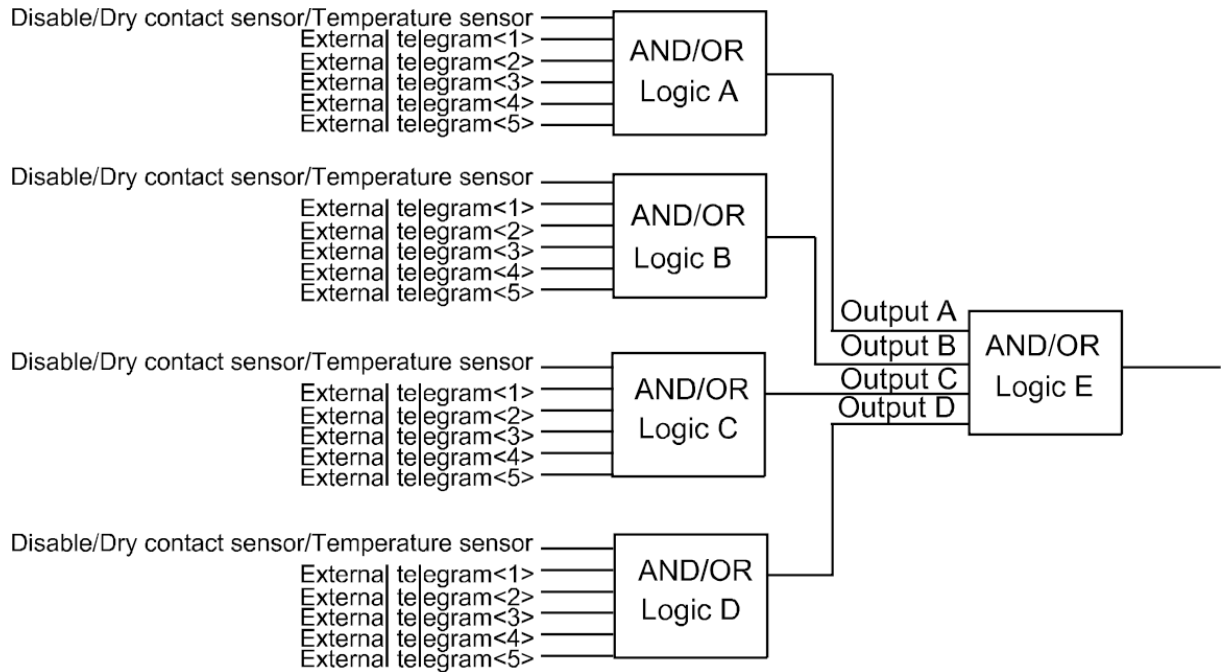
7 Application

7.1 Sensor control

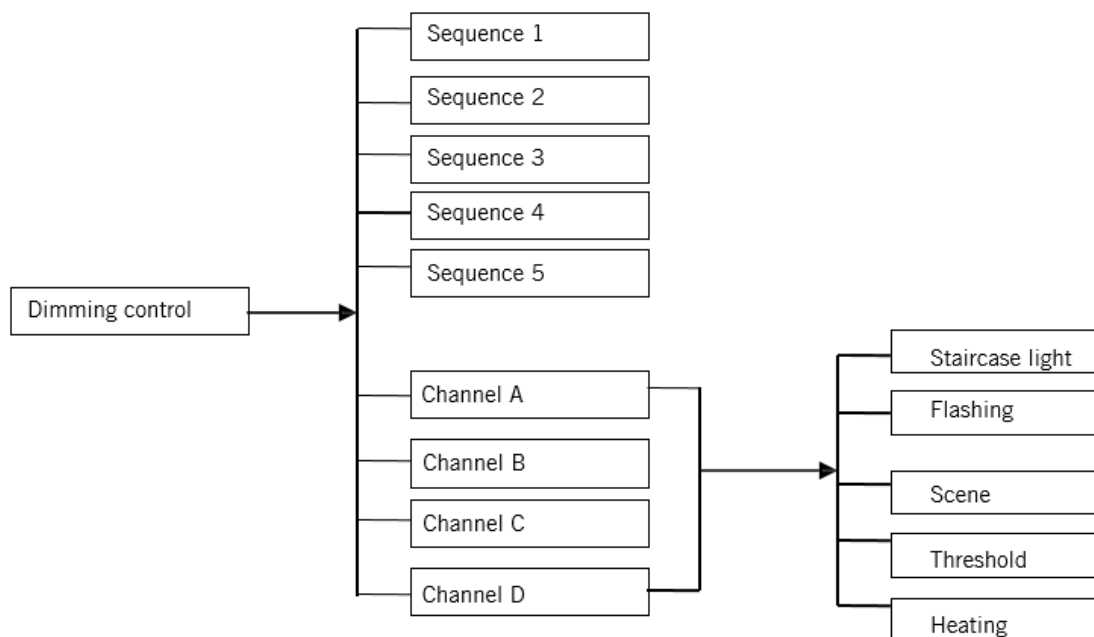




7.2 Logic control



7.3 Dimming control





8 Product disposal

This device must not be disposed of as unsorted household waste. Used devices must be disposed of correctly. Contact your local town council for more information.

9 ESYLUX manufacturer's guarantee

ESYLUX products are tested in accordance with applicable regulations and manufactured with the utmost care. The guarantor, ESYLUX Deutschland GmbH, Postfach 1840, D-22908 Ahrensburg, Germany (for Germany) or the relevant ESYLUX distributor in your country (visit www.esylux.com for a complete overview) provides a guarantee against manufacturing/material defects in ESYLUX devices for a period of three years from the date of manufacture. This guarantee is independent of your legal rights with respect to the seller of the device.

The guarantee does not apply to natural wear and tear, changes/interference caused by environmental factors or damage in transit, nor to damage caused as a result of failure to follow the user or maintenance instructions and/or as a result of improper installation. Any illuminants or batteries supplied with the device are not covered by the guarantee.

The guarantee can only be honoured if the device is sent back with the invoice/receipt, unchanged, packed and with sufficient postage to the guarantor, along with a brief description of the fault, as soon as a defect has been identified. If the guarantee claim proves justified, the guarantor will, within a reasonable period, either repair the device or replace it. The guarantee does not cover further claims; in particular, the guarantor will not be liable for damages resulting from the device's defectiveness. If the claim is unfounded (e.g. because the guarantee has expired or the fault is not covered by the guarantee), then the guarantor may attempt to repair the device for you for a fee, keeping costs to a minimum.