Schneider

KNX push-button modules

Operating instructions



System M



KNX push-button module, 1-gang Art. no. MTN625199

Artec/Antik/Trancent



KNX push-button module, 1-gang Art. no. MTN626199

System M



KNX push-button module, 2-gang Art. no. MTN625299

Artec/Antik/Trancent



KNX push-button module, 2-gang Art. no. MTN626299

For your safety



Risk of fatal injury from electrical current. All work carried out on the unit may only be performed by skilled electricians. Observe the regulations valid in the country of use, as well as the valid KNX guidelines.

Getting to know the push-button module

The KNX push-button module provides you with two or four operating surfaces, two in the case of 1-gang pushbuttons and four in the case of 2-gang push-buttons. The push-buttons can be set to perform various functions, allowing you, for example, to switch lighting on and off or dim it, control the blinds or retrieve stored scenes.

Connections, displays and operating



A Status LED

elements

- 1-2 Numbering of the operating surfaces for 1-gang push-button
- 1-4 Numbering of the operating surfaces for 2-gang push-button



- (A) Bus connection
- B Programming LED
- © Programming button

How to install the push-button module

You need a frame System M or Artec/Antik/Trancent ranges to install the push-button module. The description which follows shows the installation of the 2-gang System M push-button module. The installation of the 1gang push-button module and the Artec/Antik/Trancent push-button modules is carried out in the same way



Assemble retaining ring on mounting box.



(2) Connect the red bus wire to the red terminal (+) and the black one to the dark grey terminal (A) (-).

The screen and the stability wire, as well as the white and yellow cores of the bus line (B), are not required.

- ③ Insulate the screen and stability wires and both cores and place them in the mounting box.
- (4) Insert the bus terminal into the connection of pushbutton (A).



- 5 Push the rockers D onto push-button module C.
- 6 Insert push-button module C into frame B.
- ⑦ Place push-button module C with its frame B onto retaining ring A. Make sure that the push-button clicks into place.

How to set up the push-button module

- ① Load the physical address into the push-button module from the ETS via the KNX.
- ② Set the desired configuration for the push-button module in the ETS, and transfer the configuration into the push-button module via the KNX.

Make a note of the assignment in the "Push-button assignment" table, last section.

Technical data

Initialising:	Due to telegram rate limitati- ons, at least 17 seconds must elapse after initialisati- on before a telegram can be generated.
Display elements:	
MTN625199 and MTN626199	1 status LED
MTN625199 and MTN626199	2 status LEDs
Control elements:	
MTN625199 and MTN626199	1 keys/2 operating surfaces
MTN625199 and MTN626199	21 keys/4 operating surfaces
Ambient -temperature	
Operation:	-5 °C to +45 °C
Storage:	-25 °C to +55 °C
Transport:	-25 °C to +70 °C
Max. humidity:	93 % relative humidity, no moisture condensation
Type of protection:	IP 20

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If you have technical questions, please contact the Customer Care Center in your country.

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This product must be installed, connected and used in compliance with prevailing standards and/or installation regulations. As standards, specifications and designs develop from time to time, always ask for confirmation of the information given in this publication.

Switch.Dim.Bli.Scene.Status 1911/1.0

General information

With this application, two objects are available per button.

The "push-button pair" concept is not applied here - in other words, you can parameterise each button in such a way that it functions independently of the other buttons. Previously, one switch object would appear in the ETS per "push-button pair" when a switching function was applied, for example. In order to realise the same function with this software, you must connect two switch objects belonging to the two buttons in question in the ETS.

Group addresses are managed dynamically. Maximum no. of group addresses and associations: 140.

Device selection:

First you must adapt the application to the hardware used (1-gang push-buttons or 2-gang push-buttons). When the device selection is toggled, parameter settings and connected group addresses are changed by the ETS. For this reason, you should set the device selection before parameterisation.

Parameters

General		
Parameters	Setting	
Push-button module	1-gang	
	2-gang	

• Push-button information

The push-button information lets you see which designations are used in the ETS for the buttons on the push-button module. The designations cannot be changed.

• Send 1/8 bit switching commands

Depending on the parameterisation, one of the following will be sent via the switch/value object whenever a push-button is pressed:

- an ON or OFF telegram
- 1 byte values (0 % 100 % in steps)
- 1 byte values (0 255) infinitely

sent via the switch/value object

Status response

The status LED may do one of the following:

- light up when buttons 1, 3 are activated,
- be switched on or off continuously,
- flash,
- display the status of the switch/value object. When a 1 byte object type is used, the LED lights up when the value is greater than zero.

Communication objects

You can select the following communication objects:

Per button:

Function	Object name	Туре	Prio	Flags	Behaviour
Button X	Switch object A	1 bit	low	WCT	Send/ receive
Button X	Value object A	1 byte	low	WCT	Send/ receive
Button X	Status feedback object	1 bit	low	WC	Receive

Switch.Dim.Bli.Scene.Status 1911/1.0

Parameters

Button X	1
Parameters	Setting
Functional selection	Switching
Triggering of status LED	switched on
	switched off
	from switch/value object A
	from status feedback object
	operation = ON / release = OFF
	prolonged operation = ON / release = OFF
	flashes
	flashes if switch/value object A not equal to 0
	flashes if switch/value object A equal to 0
	flashes if status feedback object equal to 1
	flashes if status feedback object equal to 0
	operation = flash / release = OFF
	prolonged operation = flash / release = OFF
Object A	1 bit
	1 byte in steps 0 % -100 %
	1 byte infinitely 0 - 255
Value (only with "1 bit" object)	ON telegram
	OFF telegram
Value (only with object "in steps	100 %
0 % - 100 %")	adjustable in steps of ten as well as 25% and 75%
Value (only with object "infinitely	255
0 - 255")	adjustable in single steps

• Dimming

You can use the dimming function for the following:

- dim brighter and darker via one button (singlesurface dimming)
- either dim brighter or darker. You need a second button to dim in the other direction (dual-surface dimming)

Common parameters for single-surface and dualsurface dimming

You can use the corresponding button to switch the light on or off (press push-button briefly) or dim it (press push-button for a longer period, the exact period can be parameterised). When switching takes place, an ON/OFF telegram is sent via the switch object. When dimming, dimming up or dimming down is carried out via the 4-bit dimming object; the dimming levels can be parameterised. In addition, you can also transmit the corresponding dimming level cyclically for a period of time which can be set as required.

Button X]
Parameters	Setting
Functional selection	Dimming
Detection of prolonged operation from 100 ms * Factor (4-250)	4 - 250, 6 Default option
Triggering of status LED	switched on
	switched off
	from switch/value object A
	from status feedback object
	operation = ON / release = OFF
	prolonged operation = ON / release = OFF
	flashes
	flashes if switch/value object A not equal to 0
	flashes if switch/value object A equal to 0
	flashes if status feedback object equal to 1
	flashes if status feedback object equal to 0
	operation = flash / release = OFF
	prolonged operation = flash / release = OFF
Dimming direction	brighter
	darker
	brighter and darker
Cyclical sending of the dimming	yes
levels	no
only with cyclical sending of the	0.1 second
<i>dimming levels</i> : Base for cyclic interval	1 second
	1 minute
	1 hour
	1 day
only with cyclical sending of the dimming levels: Factor for cyclic interval (3-255)	3 - 255, 8 Default option

Additional parameters for single-surface dimming

You can dim lighter or darker and also switch on or off using a single button.

The current switching or dimming direction is always dependent on the previous action, i.e. if switched off, a brief push of the button will switch the light on and vice versa, and if the light has been dimmed up, prolonged operation of the button will dim the light down again. On release after prolonged operation, a stop telegram will be sent via the 4-bit dimming object, thus terminating the dimming procedure in the dimming actuator.

An update or change to the switch/object value is possible via the bus when another sensor switches or dims the actuator (e.g. via a two-way circuit or a central command). To prevent the "wrong" switching/dimming activity, you must load the status of the actuator in the push-button. To do this, connect the group address of the second sensor to the switch/dimming object of the push-button module.

A single command is sufficient to cycle through the dimming range. This dimming procedure can be used for most applications. The other possible dimming levels (1/2 - 1/64 brighter or darker) dim brighter or darker by the level set. For example, to dim from min. to max. brightness, you would need to push the button for a prolonged period four times in succession if the level set is 1/4.

Setting
brighter and darker
to max. brightness
1/2 brighter
1/4 brighter
1/8 brighter
1/16 brighter
1/32 brighter
1/64 brighter
to min. brightness
1/2 darker
1/4 darker
1/8 darker
1/16 darker
1/32 darker
1/64 darker

Additional parameters for dual-surface dimming

These are used to dim either brighter or darker and to either switch on or off using a single button. Therefore, you must parameterise a second button for the opposite direction.

You can set whether a stop telegram is to be sent when the button is released. When you have enabled the sending of a stop telegram, a stop telegram will be sent via the 4-bit dimming object after prolonged operation of the button, thus terminating the dimming procedure in the dimming actuator.

A single command is sufficient to cycle through the dimming range. This dimming procedure can be used for most applications. The other possible dimming levels (1/2 - 1/64 brighter or darker) dim brighter or darker by the level set. For example, to dim from min. to max. brightness, you would need to push the button for a prolonged period four times in succession if the level set is 1/4.

Dimming	
Parameters	Setting
Dimming direction	brighter
	darker
only in the dimming direction	to max. brightness
<i>"brighter":</i> dimming levels (brighter)	1/2 brighter
	1/4 brighter
	1/8 brighter
	1/16 brighter
	1/32 brighter
	1/64 brighter
only in the dimming direction	to min. brightness
<i>"darker":</i> dimming levels (darker)	1/2 darker
	1/4 darker
	1/8 darker
	1/16 darker
	1/32 darker
	1/64 darker
Stop telegram after release	enabled
	disabled

Status response

The status LED may do one of the following:

- display the status of the switch object,
- light up when buttons 1, 3 are activated,
- be switched on or off continuously,
- flash,
- display the status of the status feedback object.

Communication objects

You can select the following communication objects:

Function	Object name	Туре	Prio	Flags	Behaviour
Button X	Switch object	1 bit	low	WCT	Send/ receive
Button X	Dimming object	4 bit	low	WCT	Send/ receive
Button X	Status feedback object	1 bit	low	WC	Receive

Blind control

With the blind control function, you can raise the blinds / adjust the slats using a single button and lower the blinds / adjust the slats using a second button (dual-surface blind operation).

Button X	
Parameters	Setting
Functional selection	Blinds
Triggering of status LED	switched on
	switched off
	from status feedback object
	when activated On /when released Off (default setting for direction of movement with positioning values)
	only with the direction of movement up, down, or up and down: ON after movement telegram
	flashes
	flashes if status feedback object equal to 1
	flashes if status feedback object equal to 0
	operation = flash / release = OFF
	prolonged operation = flash / release = OFF

Blind function "up" or "down" with one button (dual-surface blind operation)

After the corresponding button is pressed for a short time, a stop/step telegram will be sent; after the button is pressed for a prolonged period (exact period can be parameterised), a movement telegram will be sent. In the case of this function, you must parameterise a second button with the corresponding settings for blind movement in the opposite direction. Both push-buttons must be given the same group addresses.

Blinds]
Parameters	Setting
Detection of prolonged operation from 100 ms * Factor (4-250)	4 - 250, 6 Default option
Direction of movement	up
	down

Status response

The status LED may do one of the following:

- flash,
- light up when buttons 1, 3 are activated and be extinguished when they are released,
- be switched on or off continuously,
- light up when a movement telegram is sent,
- display the status of the status feedback object.

Communication objects

You can select the following communication objects:

Function	Object name	Туре	Prio	Flags	Behaviour
Button X	Stop/step object	1 bit	low	WCT	Send/ receive
Button X	Movement object	1 bit	low	WCT	Send/ receive
Button X	Status feedback object	1 bit	low	WC	Receive

• Retrieve scenes

Retrieving scenes by push-buttons enables external access to the bus via communications objects.

With the standard scene function, a scene is called up by pressing the button briefly while prolonged operation of the button is used to save a scene. You merely have to set the time after which a push-button action is detected as a long operation, the triggering of the status LED and the scene number.

Button X	
Parameters	Setting
Functional selection	Scene
Detection of prolonged operation from 100 ms * Factor (4-250)	4 - 250 in single steps, 30 default setting
Triggering of status LED	switched on
	switched off
	from status feedback object
	operation = ON / release = OFF
	prolonged operation = ON / release = OFF
	flashes
	flashes if status feedback object equal to 1
	flashes if status feedback object equal to 0
	operation = flash / release = OFF
	prolonged operation = flash / release = OFF
Scene value (0-63)	0 - 63 in single steps

Status response

The status LED may do one of the following:

- flash,
- light up when buttons 1, 3 are activated for a longer period and be extinguished when they are released,
- be switched on or off continuously,
- display the status of the status feedback object.

Communication objects

You can select the following communication objects:

Function	Object name	Туре	Prio	Flags	Behaviour
Button X	Object A	1 byte	low	WCT	Send/ receive
Button X	Status feedback object	1 bit	low	WC	Receive

 Behaviour when bus voltage is applied/restored or fails

Behaviour when bus voltage is applied/restored

Depending on the setting,

- the status LEDs may be switched on or may flash.

Behaviour on failure of the bus voltage

Any status LEDs which were lit will be switched off.