

Operating and Installation Instructions

GePro – Pushbutton KNX4 – Frontlight- / Backlight¹-KNX



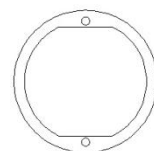
Email:
info@knx-taster.de

Internet:
www.knx-taster.de

Update: 2014-07-08



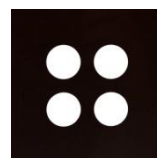
Order code:
Basic element KNX4



Order code:
Plaster compensation ring
PAR



Order code:
BL4-XX-X
Cover Backlight-KNX



Order code:
FL4-XX-X
Cover Frontlight-KNX

Please observe the following notes:

! KNX equipment must be installed and fitted by KNX-qualified electricians only!

! This user manual applies exclusively to devices with delivery date after 01.07.2014!

¹ The GePro KNX BUTTONS are filed with the German Patent & Trademark Office.

Contents

1	Delivery contents	3
2	General description.....	3
2.1	Installation:.....	3
3	Programming	4
3.1	Preparation.....	4
3.2	Download- and boot properties	5
3.3	General parameter	5
3.4	Hardware configuration	6
3.5	Parameter setting for the LED	7
3.6	Parameter setting Buttons.....	10
3.6.1	Parameter setting switch	11
3.6.2	Parameter setting Dimmer	12
3.6.3	Parameter setting Shutter	13
3.6.4	Parameter setting Valuator	14
3.6.5	Parameter setting Scene	15
4	Combination options	16
5	Technical data	16

List of tables

Table 1:	General parameter	5
Table 2:	Hardware configuration	6
Table 3:	LED parameter	8
Table 4:	Button parameter „switch“	11
Table 5:	Button parameter „Dimmer“	12
Table 6:	Button parameter „Shutter“	13
Table 7:	Button parameter „Valuator“	14
Table 8:	Button parameter „Scene“	15
Table 9:	Pushbutton KNX4	16

1 Delivery contents

- Basic element KNX4
- Plaster compensation ring PAR (must be ordered separately)
- Cover Backlight-KNX / Frontlight-KNX (must be ordered separately)

2 General description

The KNX-Pushbutton-series, Backlight-KNX and Frontlight-KNX offer a high functionality and a good tactile feedback. In addition with the RGB-LED they have a good illumination and feedback. The functional interaction of the Led-color and the cover shows stylish effects.

The following description is based on the ETS 4.1.

2.1 Installation:

Mounting in a commercially 68 installation box, a special installation box is not needed.

At first the PAR must be mounted between the installation box and the basic element. The PAR serves as compensation between upper edge of the wallpapers and the installation box. This ensures that the buttons of the basic element line up precisely with the cover. If required more PAR's can be used.

In the next step the basic element must be mounted and aligned. When the bus connection terminal shows down, button 1 is at the top on the left. The surrounding of the installation box, the PAR and the bearer ring of the basic element must close flush. Now the cover can be easily installed with their magnetic holder and flush with the wall and the buttons.

Please note that the buttons and the cover have a protective foil on their surface.

As only connection the KNX-cable is needed! No more auxiliary voltage required!

- The basic element is connected to the bus by attaching the bus connection terminal.

Black wire	: - KNX / KNX	(black clamp)
Red wire	: + KNX / KNX	(red clamp)

3 Programming

3.1 Preparation

On www.knx-taster.de or in the ETS (V4.1 or higher) in the online catalog the latest version of the product database is ready for download. This description is based on the ETS 4.1.
The physical address can be changed by pressing the programming button on the back.

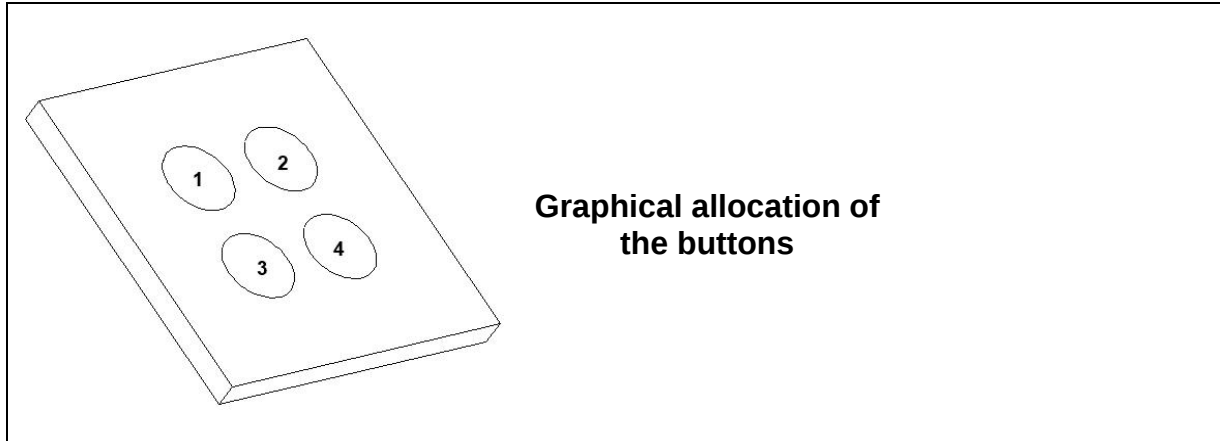


Figure 1: KNX4

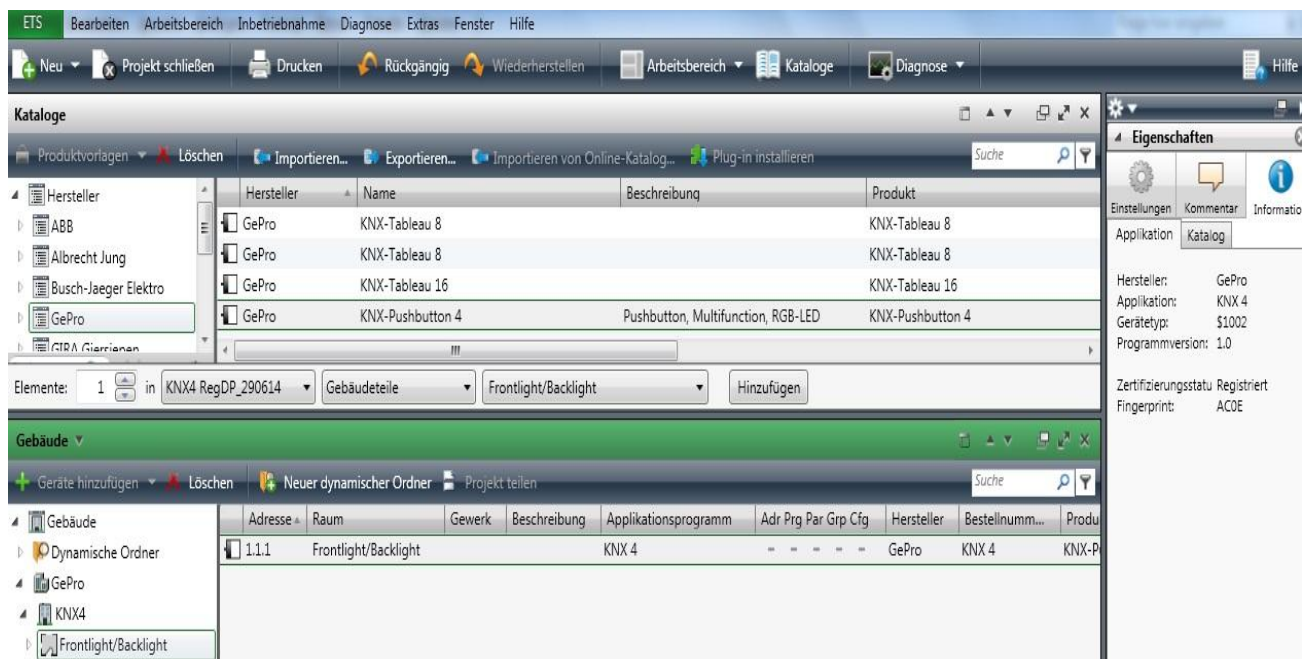


Figure 2: Choice of Pushbutton-applications in the ETS

Please note: Parameters which are not needed are not displayed. Default „No function“.

All parameters can be freely selected.

Test before first download

The standard physical address is 15.15.255. If the device is connected with KNX-bus it is possible to test the pushbutton. By pressing the button the LED shines white and a logical 1 is transmitted on the KNX-bus at the address 30/1/0 (30/2/0; 30/3/0; 30/4/0). After pressing the button again the LED turns off and a logical 0 is transmitted.

3.2 Download- and boot properties

While the download is active the LED's turns off. This procedure takes 20s. An inactive time is factory-adjusted. If the pushbutton is parameterized that all LED's update their status the booting will take 20s. In this time switching operations will be saved and executed after booting is finished.

3.3 General parameter

Gerät: 1.1.1 Frontlight / Backlight KNX4

Common/Configuration

Common

Configuration

Channel 01

Channel 02

Channel 03

Channel 04

Operational control: No

Limited telegram rate: No

Time long button press: 0.5s

Lock action: 1 = Lock; 0 = Release

LED-Test: No

LED shines on confirmation (seconds): 10

Night mode for all LEDs: Yes

Figure 3: General parameter

Table 1: General parameter

Operational control	No Yes	Send time cyclically	1...1440 min
Limited telegram rate	No Yes	Minimal rate of telegrams	0.1; 0.3; 0.6; 1.0s
Time long button press	1.0s		0.6; 0.8; 1.2; 1.4; 1.6; 1.8; 2.0s
Lock action	Lock="1"/ Release= „0“		Release= "0"/ Lock= „1“
LED-Test	No Yes		1...255s
LED shines on confirmation (seconds)			1... 10s
Night mode for all LEDs	No Yes		

These settings apply to the complete pushbutton!

With the parameter "lock action" you can chose if lock by receive a logical 1 or receive a logical 0.

The LED's can be tested by receive a logical 1 (Object 1 LED-test) independently from the current status. After the expiration of the test time the testing mode will be leaved automatically. In the test time the LED's shines white.

The parameter LED shines on confirmation is active if a confirmation of a long button press is wished.

3.4 Hardware configuration

Channel	LED	Button
Channel 01	Activ	Activ
Channel 02	Activ	Activ
Channel 03	Activ	Activ
Channel 04	Not activ	Not activ

Figure 4: Hardware configuration

Table 2: Hardware configuration

Channel 1- 4: LED 1- 4	Not active		
Button 1- 4	Active		

3.5 Parameter setting for the LED

Common/Configuration	Received value	Binary value
Common		
Configuration	Color LED on switch on	Cyan
Channel 01	Color LED on switch off	Violet
Channel 01 - LED	Flashing	Yes
Channel 01 - Button	Flashing activation	On 0 and 1
Channel 02	Flashing frequency (on/off in seconds)	01:01
Channel 02 - LED	Priority (control via second object)	Yes
Channel 02 - Button	Priority activation	Activ on 1
Channel 03	Color LED on priority	White
Channel 04	Flashing on priority	Yes
	Flashing frequency (on/off in seconds)	01:01
	Limitation of priority control (in seconds)	60
	Action after bus voltage recovery	Nothing
	Brightness in night mode	Level 6

Figure 5: Parameter setting for LED 1 to 4

Table 3: LED parameter

Received value	Binary value 1-byte-value		

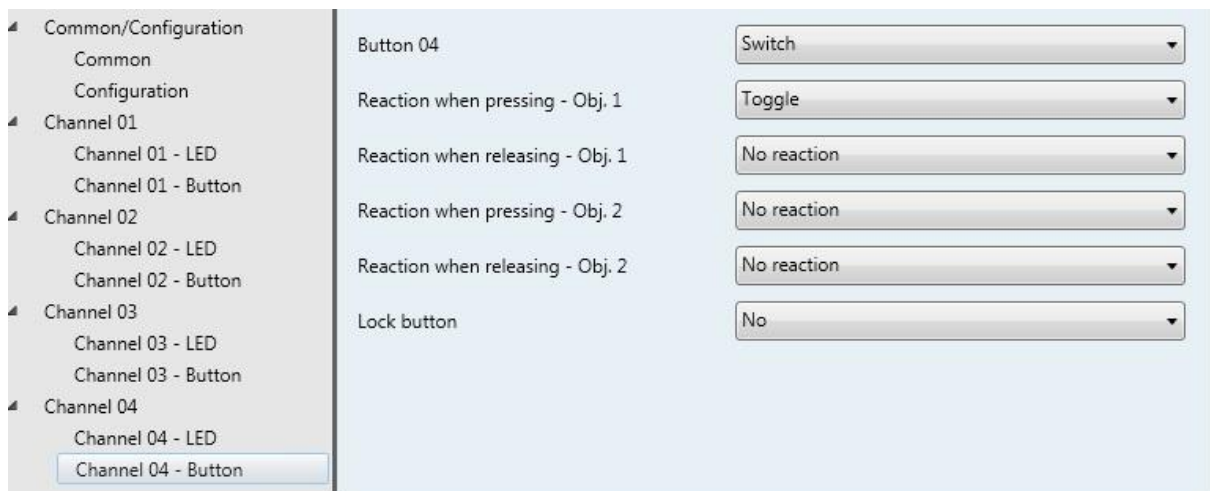
Settings at chose Binary value

Color LED on switch on	Off Red Green Blue Yellow Cyan Violet White		
Color LED on switch off	Off Red Green Blue Yellow Cyan Violet White		
Flashing	No Yes	Flashing activation	„1“ and „0“ Only at „1“ Only at „0“
Flashing frequency (on/off in seconds)	01:01		01:02 02:01
Priority (control via second object)	No Yes		Active at „1“ Active at „0“
Color LED on priority			Off Red Green Blue Yellow Cyan Violet White
Flashing on priority	No Yes	01:01	01:02 02:01
Flashing frequency (on/off in seconds)	No Yes	60s	1...43200s
Action after bus voltage recovery	Nothing Get state		
Brightness in night mode	OFF 1 2 3 4 5 6 7		

Settings at chose 1-byte-value

Condition	Equal Bigger Smaller Range	0 ...255 0 ...254 1...255 0....10% 11...25% 26....40% 41....55% 56....70% 71 ...85% 86...100%	
Color LED on condition fulfilled	Off Red Green Blue Yellow Cyan Violet White		
Color LED on condition not fulfilled	Off Red Green Blue Yellow Cyan Violet White		
Priority (control via second object)	No Yes		Active bei „1“ Active bei „0“
Color LED on priority			Off Red Green Blue Yellow Cyan Violet White
Flashing on priority	No Yes	01:01	01:02 02:01
Flashing frequency (on/off in seconds)	No Yes	60s	1...43200s
Action after bus voltage recovery	Nothing Get state		
Brightness in night mode	OFF 1 2 3 4 5 6 7		

3.6 Parameter setting Buttons

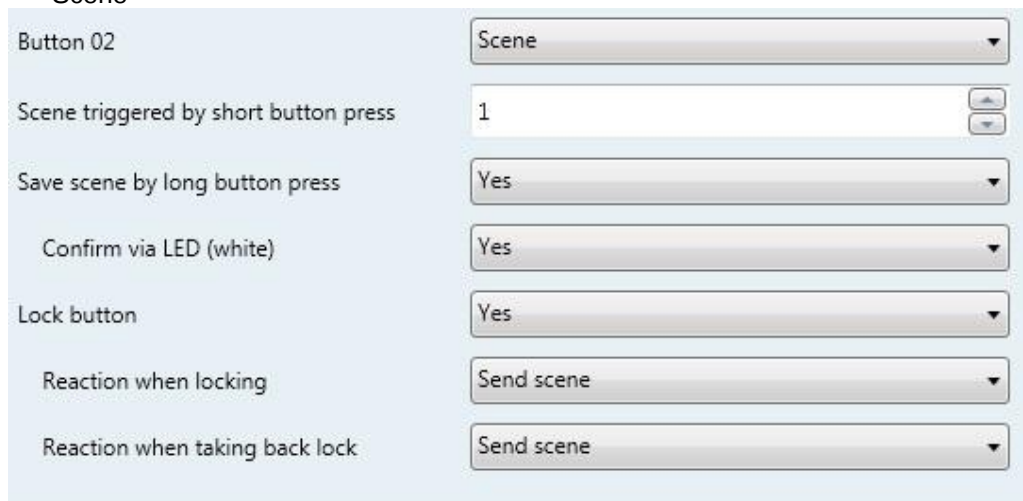


Common/Configuration	Button 04	Switch
Common	Reaction when pressing - Obj. 1	Toggle
Configuration	Reaction when releasing - Obj. 1	No reaction
Channel 01	Reaction when pressing - Obj. 2	No reaction
Channel 01 - LED	Reaction when releasing - Obj. 2	No reaction
Channel 01 - Button	Lock button	No
Channel 02		
Channel 02 - LED		
Channel 02 - Button		
Channel 03		
Channel 03 - LED		
Channel 03 - Button		
Channel 04		
Channel 04 - LED		
Channel 04 - Button		

Figure 6: Function selection Buttons

Possible functions for button 1 to 4:

- Switch
- Dimmer
- Shutter
- Valuator
- Scene



Button 02	Scene
Scene triggered by short button press	1
Save scene by long button press	Yes
Confirm via LED (white)	Yes
Lock button	Yes
Reaction when locking	Send scene
Reaction when taking back lock	Send scene

The choose able parameters for all buttons equivalent

3.6.1 Parameter setting switch

Button 04	Switch
Reaction when pressing - Obj. 1	On
Reaction when releasing - Obj. 1	Off
Reaction when pressing - Obj. 2	No reaction
Reaction when releasing - Obj. 2	No reaction
Lock button	Yes
Reaction when locking - Obj. 1	Toggle
Reaction when taking back lock - Obj. 1	No reaction
Reaction when locking - Obj. 2	No reaction
Reaction when taking back lock - Obj. 2	No reaction

Figure 7: Parameter setting switch

Table 4: Button parameter „switch“

Reaction when pressing - Obj. 1	No reaction Off / On / Toggle		
Reaction when releasing - Obj. 1	No reaction Off / On / Toggle		
Reaction when pressing - Obj. 2	No reaction Off / On / Toggle		
Reaction when releasing - Obj. 2	No reaction Off / On / Toggle		
Lock button	No Yes		
Reaction when locking - Obj. 1	No reaction Off / On / Toggle		
Reaction when taking back lock - Obj. 1	No reaction Off / On / Toggle		
Reaction when locking - Obj. 2	No reaction Off / On / Toggle		
Reaction when taking back lock - Obj. 2	No reaction Off / On / Toggle		

3.6.2 Parameter setting Dimmer

Button 03	Dimmer
Reaction	Off / Dim darker
Lock button	Yes
Reaction when locking	No reaction
Reaction when taking back lock	No reaction Off On Toggle No reaction

Figure 8: Parameter setting Dimmer

Table 5: Button parameter „Dimmer“

Reaction	Off / Dim darker On / Dim brighter One button control		
Lock button	No Yes		
Reaction when locking	No reaction Off / On / Toggle		
Reaction when taking back lock	No reaction Off / On / Toggle		

3.6.3 Parameter setting Shutter

Button 04: Shutter

Reaction: One button control

Function one button system: Long = up/down; Short = stop/lamella

Lock button: Yes

Reaction when locking: No reaction

Reaction when taking back lock: No reaction (selected), Up, Down, Stop / Lamella up, Stop / Lamella down, No reaction

Figure 9: Parameter setting Shutter

Table 6: Button parameter „Shutter“

Reaction	One button control Two button control	
Function one button system	Long up/down; Short stop/lamella Short up/down; Long stop/lamella	
Function two button system	Button press / release	Press = up, Release = stop Press = down, Release = stop
	Button press short/long	Up Down STOP / Lamella up STOP / Lamella down
Lock button	No Yes	
Reaction when locking	No reaction Up Down STOP / Lamella up STOP / Lamella down	
Reaction when taking back lock	No reaction Up Down STOP / Lamella up STOP / Lamella down	

3.6.4 Parameter setting Valuator

Button 01	Valuator
Sent value	1-byte value 0...255
Value	0
Send value after long button press	Yes
Confirm via LED (white)	Yes
Lock button	Yes
Reaction when locking	No reaction
Reaction when taking back lock	Send value
Send value	0
Send value after bus voltage recovery	No

Figure 10: Parameter setting Valuator

Table 7: Button parameter „Valuator“

Sent value	1-byte value 0...255 2-byte value 0...65535 2-byte float value Shutter	0...255 0... 65535 -100 ... +100 Send height	No Yes
Function Shutter	Height Lamella	0...100% 0...100%	Delay until sending lamella (sec) 0 ... 255s
Send value after bus voltage recovery	No Yes		
Lock button	No Yes		
Reaction when locking	No reaction Send value	height	0.... 100%
Reaction when taking back lock	No reaction Send value	height	0 ... 100%
Function sent 1-byte-value	0...255		
Send value after long button press	No Yes	Confirm via LED (white)	No Yes
Lock button	No Yes		

Reaction when locking	No reaction Send value	0...255	
Reaction when taking back lock	No reaction Send value	0...255	
Function sent 2-byte-value	0...65535		
Send value after long button press	No Yes	Confirm via LED (white)	No Yes
Lock button	No Yes		
Reaction when locking	No reaction Send value	0...65535	
Reaction when taking back lock	No reaction Send value	0...65535	
Function sent 2-byte float value	- 100 ... +100		
Send value after long button press	No Yes	Confirm via LED (white)	No Yes
Lock button	No Yes		
Reaction when locking	No reaction Send value	-100 ...+100	
Reaction when taking back lock	No reaction Send value	-100 ...+100	

3.6.5 Parameter setting Scene

Button 02

Scene triggered by short button press: 1

Save scene by long button press: Yes

Confirm via LED (white): Yes

Lock button: Yes

Reaction when locking: Send scene

Reaction when taking back lock: Send scene

Figure 11: Parameter setting Scene

Table 8: Button parameter „Scene“

Scene triggered by short button press	1 ... 64		
Save scene by long button press	No Yes		Confirm via LED (white) No/ Yes
Lock button	No Yes		
Reaction when locking	No reaction Send scene		
Reaction when taking back lock	No reaction Send scene		

4 Combination options

- On the basic element all covers (Frontlight-KNX or Backlight-KNX) can be installed.

5 Technical data

(See also data "Technical data ..." or www.knx-taster.de)

Table 9: Pushbutton KNX4

Basic element KNX4	
dimension support ring with mounting holes for installation in commercial '68 boxes	ca. 70 mm
Installation depth in box	ca. 20mm
control objects	4 push-button
indicators	4 RGB LED (Red / Green / Blue / White / Yellow / Cyan / Violet) integrated in push-button
connections	KNX-connection (e.g. KNX-Y-(St)2x2x0,8)
	black wire: - KNX
	red wire: + KNX
current consumption	ca. 11 mA
auxiliary supply	No
weight	ca. 60 g
Cover Backlight	
dimensions	75 x 75 x 6 mm
color	Silver, red, aqua-grey, lemon, white, anthracite
weight	
Cover Frontlight	
dimensions	75 x 75 x 6 mm
color	black
weight	ca. 30 g

Update: 2014-07-08

Subject to technical changes!