GLASSPAD

GP03A03KNX
GP04A04KNX
GP06A03KNX
GP08A04KNX

Product Handbook

Product:
GP03A03KNX - GP04A04KNX - GP06A03KNX - GP08A04KNX
Description:
GlassPad KNX
Document
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Any information inside this manual can be changed without advice.

This handbook can be download freely from the website: *www.eelectron.com*

Exclusion of liability:
Despite checking that the contents of this document match the hardware and software, deviations cannot be completely excluded. We therefore cannot accept any liability for this.
Any necessary corrections will be incorporated into newer versions of this manual.

Symbol for relevant information 

Symbol for warning 

1. General Introduction

This manual is intended to be used by installers and describes functions and parameters of the device GlassPad and how is possible to change settings and configurations using ETS software tool.

2. Product and functional overview

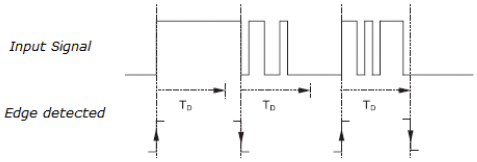
GlassPad module is designed to be installed in Home and Building installations (i.e. offices, hotels, private houses, etc...).
GlassPad range of KNX devices is divided in 4 different model based on the number of capacitive switch.

CODE	SWITCH
GP03A03KNX	3
GP04A04KNX	4
GP06A03KNX	6
GP08A04KNX	8

Capacitive switch / led main functions:

- 1 bit commands: load activation / deactivation commands (ON/OFF/TOGGLE) with short press or with differentiation of long and short press
- 1 byte commands (unsigned 0-255 or HVAC commands or value % commands).
- Sending of long action telegrams on the same address of short action or on a different group address
- Sequences (3 commands mixing 1bit/1byte objects) with different group addresses
- Edges for 1 bit / 1 Byte
- Dimmer management
- Blind / Roller Shutter management
- Scene management
- LED signaling

3. General Parameter Configuration

KNX PARAMETER	SETTINGS
Input debounce time	20 ms 80 ms 150 ms 40 ms 100 ms 200 ms 600 ms 1 sec
When a capacitive switch is pressed it is possible to have the capacitive button pressed or released more than once before fixing into a stable position. How this parameter works: after the device has detected a change of status for a channel, it waits for a time equal to the time set as “debounce time” before updating the value of the corresponding data point. The input signal is not evaluated during this time. This parameter affects all channels of the device (where present) 	
Delay on Power-up	5 ÷ 15 seconds
Through this parameter is possible to set the delay of transmission of telegrams after a power on by selecting the time by which the device is allowed to send telegrams. In large systems after a power failure or shutdown this delay avoids to generate excessive traffic on the bus, causing slow performance or a transmission block. If there are different devices requiring sending telegrams on the bus after a reset, these delays must be programmed to prevent traffic congestion during the initialization phase. The input detection and the values of objects are updated at the end of the transmission delay time At the end of ETS programming the device behaves like after a power on.	
Minimum time long press input	0,3 sec 0,4 sec 0,5 sec 0,8 sec 1 sec 1,2 sec 1,5 sec 2 sec 3 sec 5 sec 8 sec 10 sec
Determines how long must be a press to be considered	

long; if shorter than the selected value the press will be considered short.	
Disable object	Disabled Enabled
This parameter, if active, show a communication object which permits to enable/disable the operations of capacitive switches; this is useful for cleaning or maintenance in order to avoid to send unwanted telegrams.	
Timer disable object (min)	0 – 60
Here you can set a timer for “Disable object”. If the “Disable object" receive an enable command, timer starts and the operations are disabled. when the timer is expired the operations are enabled automatically. If you set zero value, there isn’t any timer and the operations are enabled / disabled only with an update on relative communication object.	
Acoustic signal on press	Disabled Enabled
This parameter, if active, permits to emit an acoustic signal every time that a capacitive switch is pressed.	
CO <Alarm>	Alarm
if an error is present, on capacitive switches, This communication object is sent on the bus. If the frontal LEDs blinking continuously, it means that there is an communication error.	

4. Channel Configuration

For each channel, present on the device, the selections are made through a configuration page.
Every single channel can be configured to perform one of the following functions:

- Activation on press
- Activation on press/release
- Activation on short and long press
- Dimming
- Shutter and blinds
- Scene
- Command in sequence (on short and long press)
- Command in sequence (toggle function)

KNX PARAMETER	SETTINGS
Function	Activation on press Activation on press/release Activation on short and long press Dimming Shutter and blinds Scene Command sequences (short/long press) Command sequences (toggle function)

4.1. Activation on press

The "Activation on press " allows you to configure the sending of telegrams when the button is pressed.

KNX PARAMETER	SETTINGS	
Telegram associated	1 bit 1 byte	
This parameter allow to select the Length of communication object.		
Command associated with press	1 bit	1 byte
	off on toggle	value 0-255 value 0-100% HVAC mode
Here you can set the command associated with press.		
Value associated with press	0-255 0%-100% auto/cmf/stby/eco/protection	
Can be set when the telegram associated is set as “1 byte”; it define the value sent on the bus.		
Feedback object	Disabled Enabled	
Can be used when button is set as “1 bit – Toggle” in order to have always the status of actuator updated.		

4.2. Activation on press / release

The "Activation on press/release" allows you to configure the sending of telegrams when the state of the button switch from press to release and vice versa.

You can set to send a telegram with different values associated with different edges.

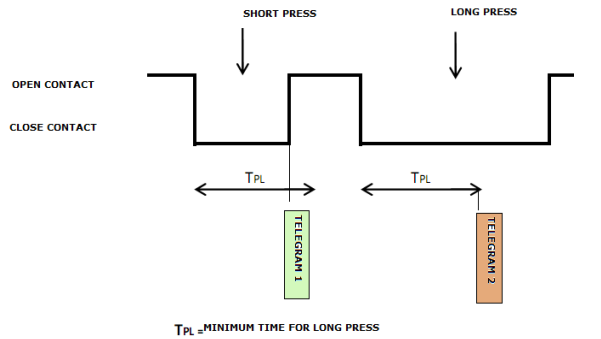
"Activation on press/release” is the same as "Activation on press"; it differs because on frontal button both press and release action are detected.

Sending of release action telegrams on the same address of press action or on a different group address.

KNX PARAMETER	SETTINGS
Communication object on release	Disabled Enabled

4.3. Activation short / long press

The difference duration between short and long press is defined by the generic parameter "Minimum time for long press button <x>". You can set to send a telegrams with different values on short and long press or decide to send commands only on one of this events.



When button is pressed and the debounce time is over then counting time, to button pressure, starts; if the button is released again (note that debounce time is considered also in button releasing) before time exceeds TPL time, device executes the command associated with the event of "short press" and if, on the contrary, TPL timeout expires and button is still pressed then the command associated with the event of "long press" is executed.
The parameters and mode of transmission of telegrams can be managed through "activation on long and short press" are the same set with the configuration "Activation on press/release".

4.4. Dimming

Through the dimming function it's possible to control a light dimmer using short & long press of a button.

Each channel uses 2 communication objects:

- 1 bit dimension for ON / OFF command associated to short press operation
- 4 bit dimension for brightness regulation associated to long press operation

KNX PARAMETER	SETTINGS

Dimming mode	brighter darker brighter/darker
Brighter: On short operation telegram "1" – ON is sent to the bus, on long operation telegram "increase brightness" is sent to the bus *Darker:* On short operation telegram "0" – OFF is sent to the bus, on long operation telegram "decrease brightness" is sent to the bus *Brighter / Darker:* On short or long operation telegrams ON / OFF and telegrams "increase / decrease brightness" are sent alternatively	
Dimming step	maximum/minimum brightness 1/2 brighter/darker 1/4 brighter/darker 1/8 brighter/darker 1/16 brighter/darker 1/32 brighter/darker 1/64 brighter/darker
Maximum / minimum brightness: When a long press is detected, device sends on the bus a command in order to increase/decrease 100% the brightness; when the button is released a STOP telegram is sent. *1/2 (or other value) brighter/darker:* Behaviour is the same of the previous setting but when a long press is detected device sends a command to the bus in order to increase/decrease 1/2 (50%) the brightness; 1/4 means 25%; 1/8 means 12.5%; 1/16 means 6.25%; 1/32 means 3.125%; 1/64 means 1.56%;	
Feedback object	Disabled Enabled
You can use it, in order to have always the status of dimming actuator updated. This parameter is shown if the "dimming mode" parameter is: brighter / darker.	

4.5. Shutter and Blind

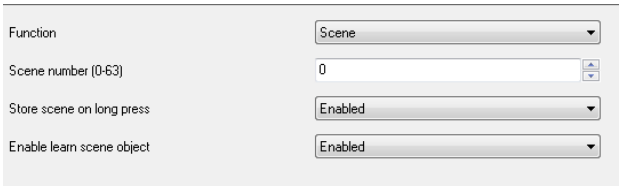
Through the Shutter and Blind function it's possible to control Roller Shutters or Blinds using short & long press of a button.

Each channel uses 2 communication objects:

- 1 bit dimension for STEP / STOP command associated to short press operation
- 1 bit dimension for UP / DOWN command associated to long press operation

KNX PARAMETER	SETTINGS
Command drive shutter	move up move down move up/ move down
Move up: On short operation command STEP UP / STOP – is sent to the bus, on long operation telegram "MOVE UP" is sent to the bus. *Move down:* On short operation command STEP DOWN / STOP – is sent to the bus, on long operation telegram "MOVE DOWN" is sent to the bus. *Move up / Move down:* On short or long operation telegrams STEP / STOP and telegrams MOVE UP / MOVE DOWN are sent alternatively	
Feedback object	Disabled Enabled
You can use it, in order to have always the status of shutter actuator updated. This parameter is shown if the "Command drive shutter" parameter is: move up / move down.	

4.6. Scene Management



In this configuration page it's possible to set the channel for scene management: learn and recall scene commands.
These different behavior (recall and learn) are performed through two different actions (short and long press) of button.

Learn scene on long press action is enabled by a parameter.

KNX PARAMETER	SETTINGS
Scene Number	Number of the scene: 0 ÷ 63
This parameter sets the value of the scene you intend to learn / recall (one per channel). Remember that output devices (i.e. actuators, etc.) generally can manage several scenes, each identified by a value (that varies from 0 to 63); therefore is important to set this parameter correctly and matching the number set on the actuators.6	
Store scene on long press	Disabled Enabled
If disable, long press action is ignored and no telegram is sent to the bus; if enable on long press action a learn scene telegram is sent to the bus.	
Enable learn scene object	Disabled Enabled
If this parameter is enabled you have a communication object (size = 1 bit). When this object receives a telegram "1" then the function associated to the long press of the button (send the telegram storage scenario) is enabled, when it receives a telegram "0" the command associated with the long press is not sent.	

4.7. Commands in sequence (on short and long press)

The function allows you to associate to short and long press, sequences of different commands on the bus.
The sequence consists of 2 or 3 commands which can each be sized as 1 bit or 1 byte.
Once defined the number of elements in the sequence (2 or 3) and their size (1-bit / 1 byte), you can associate different commands to each element of the sequence or decide to send commands only on one of the two events.
The waiting time between a command and the next is fixed in 1 second.
Each object communication can be connected to a different group address.

For example it is possible to define a sequence:

Com-mand	Dim.	Command on short press	Command on long press
A	1 bit	ON (to actuators)	OFF (to actuators)
B	1 byte	100% (to a dimmer)	0% (to a dimmer)
C	1 byte	COMFORT (to a thermostat)	ECONOMY (to a thermostat)

4.8. Commands in sequence (toggle function)

"Command in sequence (toggle function)" is the same as "Command in sequence (on short and long press)"; it differs because allows you to associate to every press of button (toggle function), sequences of different commands on the bus.

5. Led

GlassPad device has one signaling led per channel.

It is possible drive the led in two different way:

- ON / OFF
- Blinking

KNX PARAMETER	SETTINGS
Led <x> activation telegram	Telegram “0” Telegram “1”
This parameter allow to select the activation telegram.	
Led <x>function	On/off blinking
Here you can set what’s the mode of operation of Led.	
Initial state backlight	off on
This parameter allow to set what’s the initial state of backlight.	
Value associated with backlight	25% 50% 75% 100%
This parameter allow to set what’s the initial value of backlight. GlassPad has 4 level of brightness.	

Concerning backlight function, there are two different communication objects that can be used to change, every time, the state and the value of backlight:

- **<Backlight>**
- **<Backlight> Brightness**

Wrong application download

- If the wrong ETS application is downloaded then KNX/EIB led starts blinking and device is not operative on the bus. A power reset must be done and the correct ETS application must be downloaded.