Push button 1gang standard flush-mounted 751613xx

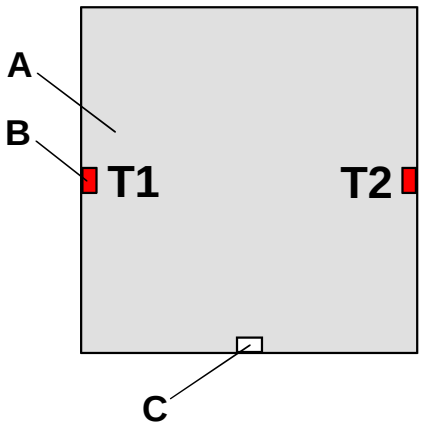
Technical Documentation

Product name:	Push button 1gang standard
Design:	flush-mounted device (UP)
ETS search path:	Push button / Push button 1gang / push button 1gang standard

Functional description:

The push button 1gang standard is plugged onto a flush-mounted bus coupling unit (BCU) (cf. connection diagram). After a press on the key, the push button sensor will transmit software-dependent telegrams to the KNX / EIB. These may be telegrams for switching, pushbutton operation, dimming or for shutter control. It is also possible to program value transmitter functions such as dimming value transmitter or light-scene extension units. A white operation LED can serve as orientation lighting.

Layout



Dimensions

Width: 70 mm

Height: 55 mm

Depth: 13 mm (without PEI)

Controls

A: 1 rocker or 2 push buttons (position: left / right)

B: 1 x 2 status-LED (red)

C: 1 x Operation-LED (white)

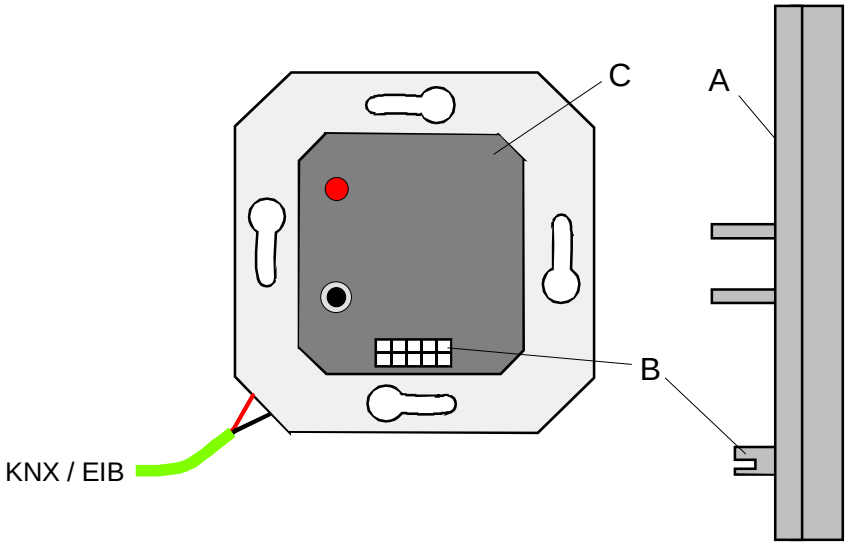
Technical Data

Type of protection	IP 20
Safety class	III
Mark of approval	KNX / EIB
Ambient temperature:	-5 ℃ ... +45 ℃
Storage / transport temperature	-25 ℃ ... +70 ℃ (storage above +45 ℃ reduces the lifetime)
Mounting position	any
Minimum distances:	none
Type of fastening	plugging onto flush-mounted BCU
KNX / EIB supply	
Voltage	21 – 32 V DC (SELV) via flush-mounted BCU
Power consumption:	typically 150 mW
Connection:	2 x 5 pole pin contact strip
External supply	---

© Gebr.Berker 2006
(Subject to prior change)

Response to bus voltage failure	
Bus voltage only:	object values are deleted, LEDs extinguished
Response on return of bus voltage:	
Bus voltage only:	no reaction
Input:	---
Output:	---

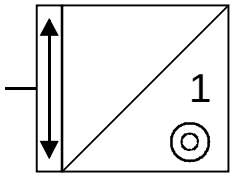
Connection and terminals:



A: push button 1gang standard
B: physical external interface (PEI)
C: bus coupling unit (BCU)

Hardware remarks

- ---

Software description			
ETS search path Push button / Push button 1gang / push button 1gang standard			**ETS symbol** 
PEI type	04 Hex	4 Dez	2 inputs / 2 outputs

Applications:

No.	Summarized description:	Name:	Version:
1	Switching, acknowledgement	Switching, acknowledgement 100903	0.3
2	Dimming	Dimming 100C03	0.3
3	Shutter	Shutter 100D03	0.3
4	Switching , status	Switching, status 103303	0.3
5	Value transmitter	Value transmitter 101B03	0.3

Application:	1. Switching, acknowledgement 100903			
Executable from mask version:	1.0			
Number of addresses (max):	10	**dynamic table handling**	Yes	No
Number of assignments (max):	10	**maximum length of table**	20	
Communication objects	1			

Object	Function	Name:	Type	Flag
0	Switching	Push buttons	1 bit	C, W, T

Object description

Objects:

0 Switching 1-bit object for the transmission of switching telegrams (ON, OFF)

Scope of functions

- Function of operating LED and of status LED parameterizable
- Command on key press parameterizable (ON, OFF)

Parameters

Description:	Values:		Remarks:
General			
Function of the operation LED	OFF **ON**		Defines the status of the operation LED.
Function of the status LED	OFF **ON**		Defines the status of the status LED.
Light duration of the status LED at operation indication	0.75 s 1.5 s 2.25 s **2.7 s** 3.0 s	4.5 s 6.0 s 10 s 15 s 20 s	Defines the time during which the status LED is on in case of a positive acknowledgement of receipt from an addressed actuator.
Command at operation left push button	OFF **ON**		Defines the command transmitted on pressing of left push button.
Command at operation right push button	**OFF** ON		Defines the command transmitted on pressing of right push button.

Software remarks

- The status LED is on for a parameterizable time in case of a positive acknowledgement from an addressed actuator. If a key is pressed (e.g. ON) and if the push button sensor does not get a positive acknowledgement (IACK) from an addressed actuator, the object status is updated, but the corresponding status LED is not lit up.

Application:	2. Dimming 100C03		
Executable from mask version:	1.0		
Number of addresses (max):	10	**dynamic table handling**	Yes No
Number of assignments (max):	10	**maximum length of table**	20
Communication objects	2		

Object	Function	Name:	Type	Flag
0	Switching	Push buttons	1 bit	C, W, T
1	Dimming	Push buttons	4 bit	C, W, T

Object description

Objects:

0	Switching	1-bit object for the transmission of switching telegrams (ON, OFF)
1	Dimming	4-bit object for change of relartive brightness between 0 and 100 %

Scope of functions

- Function of operating LED and of status LED parameterizable
- Dimming step width, telegram repetition and transmission of stop telegrams possible

Parameters

Description:	Values:	Remarks:
General		
Function of the operation LED	OFF **ON**	Defines the status of the operation LED.
Function of the status LED	OFF **ON**	Defines the status of the status LED.
Dimming brighter by	**100 %** 6 % 50 % 3 % 26 % 1.5 % 12.5 %	Defines the maximum dimming step performed on reception of a relative dimming telegram (brighter).
Dimming darker by	**100 %** 6 % 50 % 3 % 26 % 1.5 % 12.5 %	Defines the maximum dimming step performed on reception of a relative dimming telegram (darker).
Telegram repetition ?	YES **NO**	Defines whether dimming telegrams are to be cyclically repeated
Time between two telegrams	100 ms; 200 ms; 300 ms; **400 ms**; 500 ms 750 ms; 1.0 s; 1.5 s; 2.0 s	Defines the time between two dimming telegrams for telegram repetition
Send stop telegram ?	**YES** NO	Defines whether a dimming procedure in progress is to be stopped when the key is released (YES).

Software remarks

- The status LED indicates the instantaneous status of the switching object. If a key is pressed (e.g. ON) and if the push button sensor does not get a positive acknowledgement (IACK) from an addressed actuator, the object status is updated, but the corresponding status LED is not lit up.

Application:	3. Shutter 100D03			
Executable from mask version:	1.0			
Number of addresses (max):	10	**dynamic table handling**	Yes	No
Number of assignments (max):	10	**maximum length of table**	20	
Communication objects	2			

Object	Function	Name:	Type	Flag
0	Step operation	Push buttons	1 bit	C, W, T
1	Move operation	Push buttons	1 bit	C, W, T

Object description

Objects:

0	Step operation:	1-bit object for the step (short-time) operation of a shutter
1	Move operation:	1-bit object for the move (long-time) operation of a shutter

Scope of functions

- Function of operation LED parameterizable
- Time between two telegrams and number of steps before continuous run (slat adjustment) presettable

Parameters

Description:	Values:	Remarks:
General		
Function of the operation LED	OFF **ON**	Defines the status of the operation LED.
Number of steps before move operation (1…30)		A short-time telegram (STEP) permits adjusting the slats of a shutter.
	1 ... 30; 1	This parameter defines how many short-time telegrams are transmitted before a continuous run (MOVE) after a long key-press.
Time between two telegrams, base	0.5 ms; **8 ms**; 130 ms 2.1 s; 33 s	Defines the time base between two telegrams. (Time between STEP – STEP or between STEP – MOVE) Time = base • factor
Time between two telegrams, factor(0...255)	0 ... 255; **46**	Defines the time factor between two telegrams. (Time between STEP – STEP or between STEP – MOVE) Time = base • factor Presetting: 8 ms • 46 = 368 ms

Application:	4. Switching/pushing 103303		
Executable from mask version:	1.0		
Number of addresses (max):	13	**dynamic table handling**	Yes No
Number of assignments (max):	13	**maximum length of table**	26
Communication objects	3		

Object	Function	Name:	Type	Flag
0	Switching	Left push button	1 bit	C, W, T
1	Switching	Right push button	1 bit	C, W, T
2	Triggering LED	Status LED	1 bit	C, W, T

Object description

Objects:

0 - 1	Switching	1-bit object for the transmission of switching telegrams (ON, OFF)
2	Triggering LED:	1-bit object for status LED control

Scope of functions

- Function of operation LED can be parameterized and status indication controlled by means of objects
- Push button functions (ON / OFF / TOGGLE) can be parameterized

Parameters

Description:	Values:	Remarks:
General		
Function of the operation LED	OFF **ON**	Defines the status of the operation LED.
Push buttons		
Function of the status LED		Defines the operation of the status LED.
	ON (status)	The status LED indicates the object status of the LED control object.
	LED always on	The status LED is always on.
	LED always OFF	The status LED is always off.
Command at operation left push button	push = ON, release = ON push = ON, release = OFF **push = ON, release = ---** push = ON, release = ON push = OFF, release = OFF push = ON, release = --- push = TOGGLE, release = --- push = ---, release = ON push = ---, release = OFF push = ---, release = TOGGLE push = ---, release = ---	Defines the command transmitted on pressing or on releasing of left push button.

Command at operation right push button	push = ON, release = ON push = ON, release = OFF **push = ON, release = ---** push = ON, release = ON push = OFF, release = OFF push = ON, release = --- push = TOGGLE, release = --- push = ---, release = ON push = ---, release = OFF push = ---, release = TOGGLE push = ---, release = ---	Defines the command transmitted on pressing or on releasing of right push button.

Application:	5. Value transmitter 101B03			
Executable from mask version:	1.0			
Number of addresses (max):	1	**dynamic table handling**	Yes	No
Number of assignments (max):	1	**maximum length of table**	2	
Communication objects	1			

Object	Function	Name:	Type	Flag
☐ | 0	Value transmitter / light scene extension	Push buttons	1 byte	C, T

Object description

Objects:

☐ | 0 Value transmitter / light scene extension — 1-byte object for the transmitting value telegrams of for recalling of light-scenes

Scope of functions

- Function of operating LED and of status LED parameterizable
- Mode of operation (value transmitter / light scene recall with / without storage function) freely selectable
- Values (1 byte) or light-scene numbers (1...8) for all push buttons individually parameterizable

Description:	Values:	Remarks:
General		
Function of operation LED	OFF **ON**	Determines the status of the operation LED.
Function of the status LED	OFF **ON**	Determines the status of the status LED.
Operating mode	Value transmitter **Recall light scene without storage function** Recall light scene with storage function	Defines the function of the push button sensor.
Push buttons (with "Operating mode = value transmitter")		
Left push button value (0...255)	0 ... 255; **1**	Defines the value transmitted when left push button is pressed.
Right push button value (0...255)	0 ... 255; **2**	Defines the value transmitted when right push button is pressed.
Push button (with "Operating mode = recall light scene with / without storage function")		
Left push button light scene (1...8)	1 ... 8; **1**	Defines the value transmitted when left push button is pressed.
Right push button light scene (1...8)	1 ... 8; **2**	Defines the value transmitted when right push button is pressed.

Software remarks

- Light-scene extension unit:

  When a push button is pressed for more than 1 s, the parameterized light-scene is recalled and the pertaining status LED switched on for about 1 s. If a key is pressed during a light-scene recall with storage function for more than 5 s, a storage telegram corresponding to the parameterized light-scene will be transmitted and the status LED is lit up for 4 s. Pressing a key with storage function for a time between 1 s and 5 s is without effect.
  The status LED lights up after a key-press only in conjunction with a positive acknowledgement (IACK) from an addressed actuator.

Value transmitter:

The status LED lights up after a key-press only in conjunction with a positive acknowledgement (IACK) from an addressed actuator.