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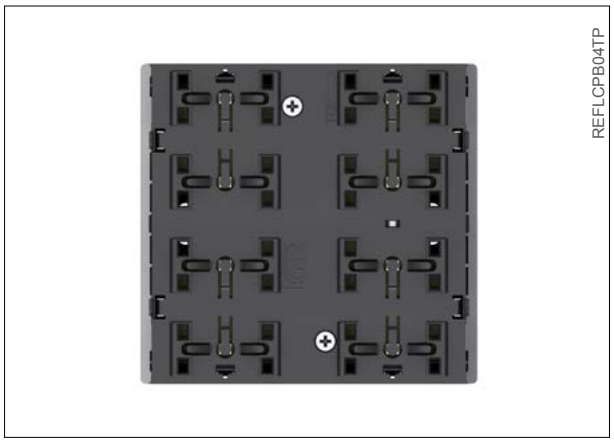
KNX pushbutton 4-channels

Art. nr. LC-PB04-TP

File: DSLCPB04TPEN

KNX device for switching and control of single loads or groups of loads. It has to be used in KNX installations for control of homes and buildings.



Description

The LightControl 4-channels pushbutton (max 8 functions) is a S-mode KNX device for on/off switching of loads, dimming of lighting devices, controlling of motor drives or other programmable switching and control functions. It is equipped with an integrated KNX bus communication module and is designed for wall installation on flush mounting box. The device has two LEDs for each channel programmable for example as a status signal or orientation nightlight. The pushbutton has to be completed with four rockers that must be ordered separately. Pressing a rocker, the device sends on the bus a telegram, which is received and executed by one or more KNX actuators. The device is powered by the KNX bus line with a SELV voltage 30 Vdc and does not require auxiliary power.

Note. *The rockers for the completion of the device must be ordered separately. For more information on colors and finishes available, see also the LightControl product catalog or browse www.lightcontrol-knx.com*

Main functional characteristics

- On/off switching of single loads or groups of loads
- Dimming of lighting devices
- Control of motor drives (for roller shutters, blinds, curtains, etc.)
- Recalling and saving of scenes
- Sending on the bus of values (temperature, brightness, etc.)
- Switching to forced functioning (lock)
- Measuring of room temperature and light brightness through integrated sensors
- Different functions programmable for short pressure / long pressure of a rocker
- Status feedback or orientation nightlight through 2-color programmable LEDs

Other characteristics

- Housing in plastic material
- Wall installation in flush mounting box
- Protection degree IP20 (according to EN 60529)
- Classification climatic 3K5 and mechanical 3M2 (according to EN 50491-2)
- Pollution degree 2 (according to IEC 60664-1)
- Weight 40 g (55 g with mounting support)
- Dimensions 82 x 75 x 35 mm (WxHxD)

Technical data

- Power supply 30 Vdc from KNX bus line
- Current consumption < 15 mA
- Power from bus < 360 mW

Environmental conditions

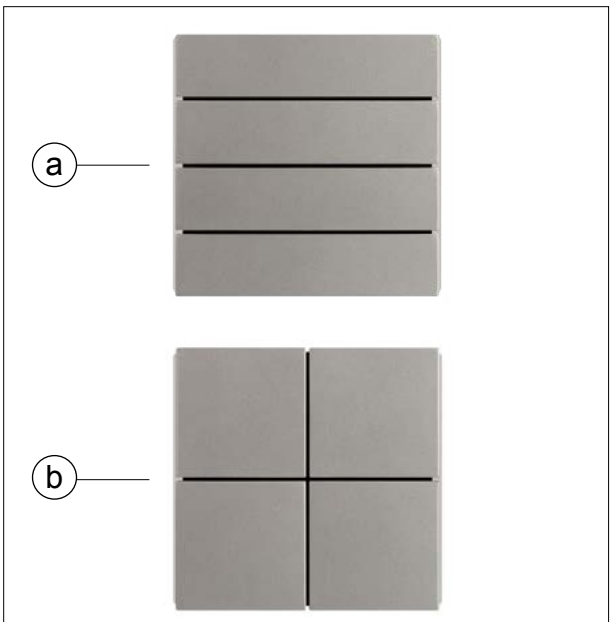
- Operating temperature: - 5 ... + 45°C
- Storage temperature: - 25 ... + 55°C
- Transport temperature: - 25 ... + 70°C
- Relative humidity: 95% not condensing

Completion of the pushbutton

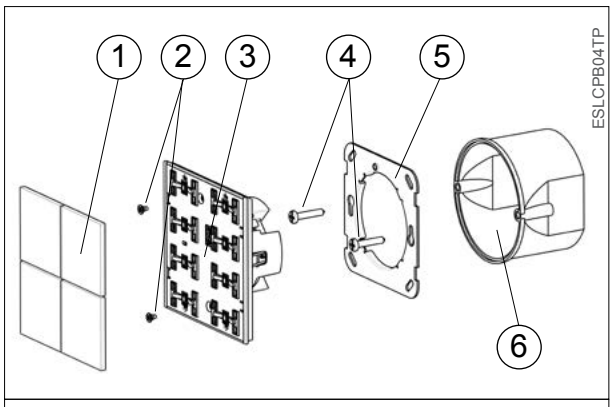
For installation and operation a LightControl 4-channels pushbutton must be completed with a separate order of four square or four rectangular rockers. The metallic support, the fixing screws (two pairs) and the KNX terminal block for connection of the bus line are supplied with the device.

Art. nr.	Number and type of rockers	Modularity of rockers [mm]
LC-PB04-TP	4 square	40 x 40
	4 rectangular	80 x 20

Three-positions rockers with central neutral position have to be mounted on the pushbutton. Pushing one side of a rocker (for example the upper one), the pushbutton sends on the bus a telegram for switching on, increasing the brightness of luminaires or raising the blinds, while pushing the other side (for example the lower one), it sends a telegram for switching off, reducing the brightness of luminaires or lowering the blinds. Each channel is equipped with LEDs which can be freely programmed as status feedbacks of the loads and as orientation nightlight.



a) pushbutton completed with rectangular rockers (80 x 20 mm, L x H)
b) pushbutton completed with square rockers (40 x 40 mm, L x H)



1) Rockers (to be ordered separately)
2) Screws to fasten the pushbutton on the metallic support
3) Device (4-fold pushbutton)
4) Screws for fixing the support on the wall box
5) Metallic support
6) Flush-mounting box

Mounting

The device has degree of protection IP20, and is therefore suitable for use in dry interior rooms. The installation of the device requires the following steps:

- fix the metallic support (5) with the screws supplied (4) on the wall box (6) provided with suitable fixing holes;

- enter the bus terminal, previously connected to the bus cable in its slot on the rear side (see also: “Connection of the KNX bus line”). At this point it is recommended to carry out the commissioning of the device (see also “Configuration and commissioning”) or at least the download of the physical address;

- mount the device on the metallic support supplied (5) with the screws (2). The correct mounting of the device occurs when the bus terminal is located in the lower part; for mounting the device follow also the indication TOP (arrow tip pointing up) on the rear side of the device.

- snap the four rockers (1) on the device (3).

The 4-fold pushbutton can be mounted only on a round or square flush-mounting box with distance between fixing holes of 60 mm. If necessary, the metallic support for mounting on the wall box can also be ordered separately.

Switching, display and connection elements

The device is equipped with mechanisms for switching, 2 LEDs for each channel, a programming LED and a programming pushbutton and a terminal block for connection of the bus line.

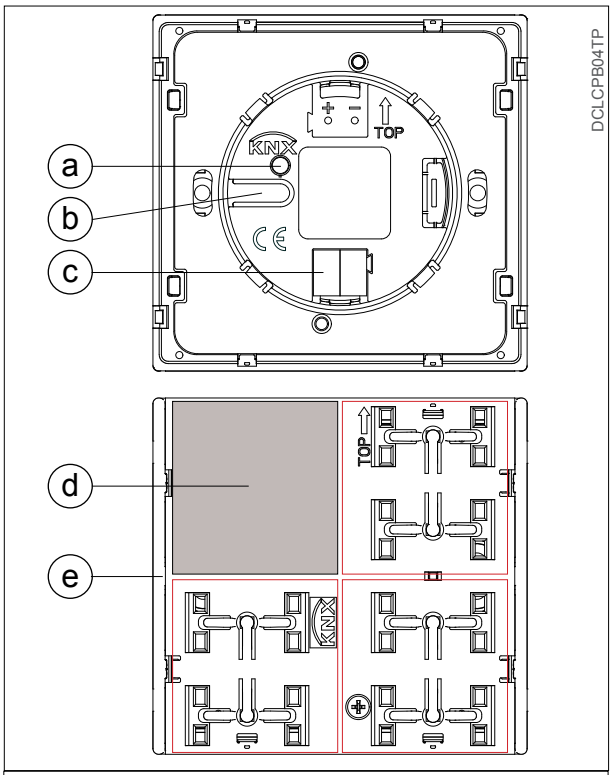
Switching elements

- Pushbutton (b) for switching between the normal and programming operating modes
- Rockers (d) for independent switching of single or group of loads (to be completed with square or rectangular rockers)

Display elements

- LED red (a) for indication of the active operating mode (on = programming, off = normal operation)
- freely programmable LEDs with lightguide (e) e.g. for feedback status and orientation nightlight

Note. *Programming pushbutton and LED are only accessible from the rear side of the device. It is better addressing the device before the final assembling of rockers. Once the addressing has been carried out, the device configuration can be later downloaded without pressing the programming pushbutton.*



a) Programming LED
b) Programming pushbutton
c) Connection terminal block for KNX bus line
d) Rocker (in the example: square rocker 40 x 40 mm)
e) Light guide for LED

Connection of the KNX bus line

The connection of the KNX bus line is made with the black/red terminal block (c) included in delivery and inserted into the slot of the housing.

Characteristics of the KNX terminal block

- spring clamping of conductors
- 4 seats for conductors for each polarity
- terminal suitable for KNX bus cable with single-wire conductors and diameter between 0.6 and 0.8 mm
- recommended wire stripping approx. 5 mm
- color codification: red = + (positive) bus conductor, black = - (negative) bus conductor

Warning! *In order to supply the KNX bus lines use only KNX bus power supplies (e.g. LightControl art. nr. LC-PS640-TP). The use of other power supplies can compromise the communication and damage the devices connected to the bus.*

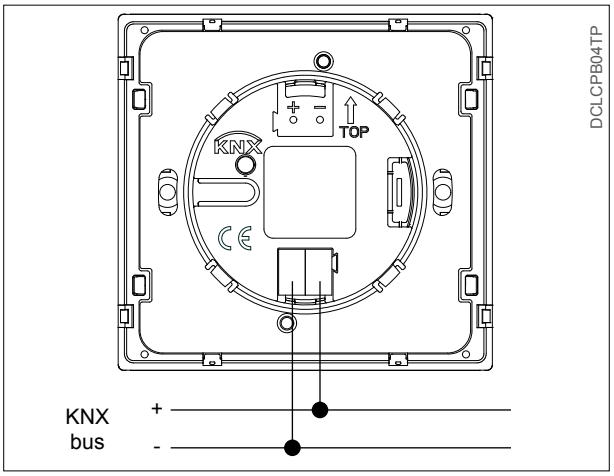
Configuration and commissioning

Configuration and commissioning of the device require the use of the ETS® (Engineering Tool Software) program V4 or later releases. These activities must be carried out according to the design of the building automation system done by a qualified planner.

Note. *The configuration and commissioning of KNX devices require specialized skills. To acquire these skills, you should attend the workshops at KNX certified training centers.*

Configuration

For the configuration of the device parameters the corresponding application program or the whole LightControl product database must be loaded in the ETS program. For detailed information on configuration options, refer to the application manual of the device available on the website www.lightcontrol-knx.com



Warning! *The electrical connection of the device can be carried out only by qualified personnel. The incorrect installation may result in electric shock or fire. Before making the electrical connections, make sure the power supply has been turned off.*

Commissioning

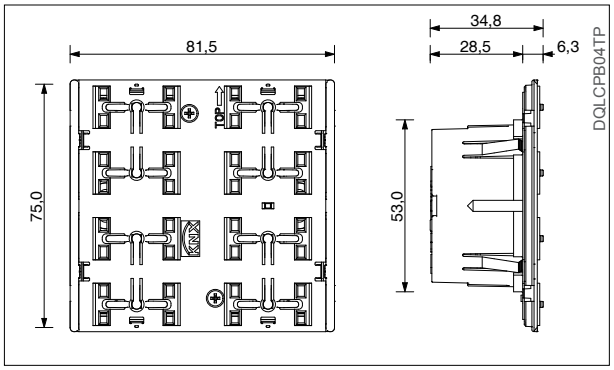
For commissioning the device the following activities are required:

- make the electrical connections as described above;
- turn on the bus power supply;
- switch the device operation to the programming mode by pressing the programming pushbutton located on the rear side of the housing. In this mode of operation, the programming LED is turned on;
- download into the device the physical address and the configuration with the ETS® program.

At the end of the download the operation of the device automatically returns to normal mode; in this mode the programming LED is turned off. Now the bus device is programmed and ready for use.

Art. nr.	Application program (## = release)	Communication objects (nr. max)	Group adresses (nr. max)
LC-PB04-TP	APLCPB04TP##.knxprod	156	254

Dimensions [mm]



Marks

- KNX
- CE: the device complies with the Low Voltage Directive (2006/95/EC) and the Electromagnetic Compatibility Directive (2004/108/EC). Tests carried out according to EN 50491-5-1:2010, EN 50491-5-2:2010

Maintenance

The device is maintenance-free. To clean use a dry cloth. It must be avoided the use of solvents or other aggressive substances.

Disposal

At the end of its useful life the product described in this datasheet is classified as waste from electronic equipment in accordance with the European Directive 2002/96/EC (WEEE), and cannot be disposed together with the municipal undifferentiated solid waste.

Warning! *Incorrect disposal of this product may cause serious damage to the environment and human health. Please be informed about the correct disposal procedures for waste collecting and processing provided by local authorities.*

Documentation

This datasheet refers to the release A1.0 of the LightControl device LC-PB04-TP, and is available for download at www.lightcontrol-knx.com as a PDF (Portable Data Format) file.

File name	Device release	Updating
DSLCPB04TPEN.pdf	A1.0	06 / 2015

Warnings

- Installation, electrical connection, configuration and commissioning of the device can only be carried out by qualified personnel in compliance with the applicable technical standards and laws of the respective countries
- Opening the housing of the device causes the immediate end of the warranty period
- In case of tampering, the compliance with the essential requirements of the applicable directives, for which the device has been certified, is no longer guaranteed
- LightControl KNX defective devices must be returned to the following address: Halechi 31 St. 51200 Bnei - Braq (Israel)

Other information

- This datasheet is aimed at installers, system integrators and planners
- For further information on the product, please contact the LightControl technical support at the e-mail address: support@lightcontrol-knx.com or visit the website www.lightcontrol-knx.com
- Each LightControl device has a univocal serial number on the label. The serial number can be used by installers or system integrators for documentation purposes and has to be added in each communication addressed to the LightControl technical support in case of malfunctioning of the device
- KNX® and ETS® are registered trademarks of KNX Association cvba, Brussels

Direct access to LightControl website
This QR code allows a direct link to the website of LightControl using mobile devices (smart phones, tablets) with a standard QR code reader installed.

www.lightcontrol-knx.com